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# PSYCHOLOGY

in the work context



ZIEL BERGH ■ DIRK GELDENHUYS

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## **CHAPTER 1**

# **Fields of study/practice areas in psychology, and industrial and organisational (I-O) psychology**

*Ziel Bergh*



## [Introduction](#)



Industrial psychology: Part of an applied field of psychology



## The nature and identity of I-O Psychology



## Sub-fields and practice areas in I-O Psychology

1.5

## [The history of I-O Psychology](#)



## Professional training and practice issues



## Future challenges for I-O Psychology



## Summary and conclusion



## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- define and describe the fields of psychology and I-O Psychology
- explain how psychology is related to I-O Psychology
- using examples, describe study fields and applied areas in I-O Psychology
- give examples of tasks, jobs and careers related to the various applied fields in I-O Psychology
- outline the origins of I-O Psychology by referring to influential events and people
- comment on the development and status of I-O Psychology in South Africa
- understand issues related to the training, professional status and practice of psychologists.

## 1.1 INTRODUCTION

How can people ensure and be assisted to find the correct study field, job, organisation or workplace? How can managers ensure that their decisions and actions in the workplace are fair and non-discriminatory? How can employees stay optimally developed and motivated? How can the well-being of employees be facilitated? How can effective coping behaviours be encouraged?

These are some of the questions with which industrial psychologists engage in their study, research, jobs and careers. Industrial psychologists *apply psychological knowledge in the work context* to determine why and how people engage in work activities, whilst also trying to improve the interaction and agreement between employees, their work, their workplaces and other relevant parties (Aamodt, 2004; Silvester, 2008; Coetzee and Schreuder, 2010). In fact, industrial psychology, more than any other discipline, contributes to our understanding of work and working, which makes up one of our three most important life interests, the others being religion and family. People spend most of their waking time at work and working, which are arguably as important as family and religious life.

The *aim* in this chapter, then, is to introduce industrial psychology as an

applied field of psychology, and its sub-disciplines and practice areas. But before going further into the fields and origin of industrial psychology, it is useful to establish how industrial psychology is related to psychology (Bergh, 2011).

## **1.2 INDUSTRIAL PSYCHOLOGY: PART OF AND APPLIED FIELD OF PSYCHOLOGY**

Chapter 2 indicates how ideas and methods from the main psychological schools of thought are still relevant and applicable in I-O Psychology. These paradigms or broad psychological approaches were and are used as “thinking caps” by academics and practitioners in the various psychological and I-O Psychology sub-fields to explain human behaviour and to execute interventions regarding human behaviour. The various chapters of this book will explore and illustrate how psychological theory, concepts, applications and research findings are applied in the world of work. It will also become clear how the various sub-fields in psychology are related to and utilised in the sub-fields and practices of I-O Psychology.

With regards to the scientific status of psychology and all its sub-fields, there is increasing recognition of the science of psychology, but mixed ideas of where psychology belongs (Pawlik and Rosenzweig, 2000). However, psychology is sometimes also classified with the natural sciences, or with the biological or life sciences, as a medical science or as belonging to the social sciences (economics, sociology, anthropology and political science) and educational sciences. In 1998, for example, psychology was classified differently by different countries, by different universities, and even between different departments in the same university (Pawlik and Rosenzweig, 2000).

In South Africa, psychology and I-O Psychology are classified differently in various situations. At the University of South Africa (Unisa), for example, psychology is classified with the humanities, I-O Psychology is classified with economic and management sciences and educational psychology is classified with the education sciences and humanities. It is also taught in other departments such as natural and medical sciences, building and design, law, HR and marketing. Our proposal and a logical approach could be to view psychology as a separate, independent science in humanities, and to recognise that the domain of psychology overlaps with many other sciences. The fact that psychology is taught and utilised in many different fields emphasises that psychology is a

necessary support discipline in many areas.



**Figure 1.1** I-O Psychology concerns human behaviour at work.

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Psychology develops basic knowledge, concepts and research findings into theories. Through research, these concepts and theories are accepted, discarded or changed. The bulk of research has the task to establish whether concepts, assumptions, theories and methods of psychology have relevance and practical value in the real world.

All psychology's sub-fields have theoretical and applied contents. However, some may be more theoretical than others. The fields of personality, social and developmental psychology may be more theoretical in nature, whilst I-O Psychology and clinical and counselling psychology are more practical in nature, as they use knowledge and methods from psychology in work-and life-related challenges. Yet it is often such applications of psychology that give rise to new theoretical questions and research.

## **ETHICAL READER: Studying the person as a human being**

Psychology is the scientific study and understanding of people's internal processes, behaviour and experiences in order to formulate general and unique principles that characterise human nature. These principles are utilised to develop, influence, assess and predict human behaviour.

But only some human attributes are directly observable; many others are not observable and need to be deduced from a person's behaviour and through systematic measurements. The constructs, concepts or terms that are used to describe psychological attributes are created by psychologists in order to provide some order in the multitude of "human information". They help psychologists to identify, describe and explain human behaviour. In addition, psychological constructs are used to reach some agreement on how to communicate with colleagues and others about human behaviour.

However, concepts or scores on psychological measures alone do not explain the person as a living human being. Psychologists need to be critical about their own concepts, and also understand the person's unique context of living and interaction, from where he/she communicates about him/herself, others and the world (Hook, 2004).

### **1.2.1 Sub-fields in psychology**

The box below listing the sub-fields of psychology gives just some of the well-known applied fields in psychology. According to Weiten (2011), clinical psychology, counselling psychology, educational and school psychology, and Industrial and Organisational Psychology represent the four clear areas of specialisation or practice. The main research areas in contemporary psychology are in the fields of developmental, social, experimental, physiological, cognitive and personality psychology, as well as in psychometrics or psychological measurement.

#### **Sub-fields of psychology**

The field of psychology can be divided into the following sub-fields:

- *Clinical psychology* aims to assist people to cope more effectively in life. It is, however, more specifically involved in alleviating psychological and emotional distress caused by psychological disorders, and promoting psychological well-being by facilitating independence, decision-making skills, effective coping skills, a healthy sense of self, and maintaining successful interpersonal relationships.
- *Counselling psychology*, related to clinical psychology in many ways, is primarily involved in reducing psychological pain caused by problems in life, facilitating an improved understanding of life, and fostering the use of effective coping skills to live more meaningfully and to adapt to and solve problems in life by making good decisions in life and work.
- *Career psychology* involves studying and facilitating occupational development across the lifespan, with the emphasis on adult career development. It is often used in the practices of counselling psychology.
- *Educational and school psychology* is primarily involved in studying influencing factors, behaviour, processes, learning problems, and learning, teaching, assessment and management methods at pre-school, school and adult levels. It can also include aspects of career or occupational development.
- *Developmental psychology* is concerned with the age-related changes and phases across a person's lifespan. It involves motor, emotional, social, intellectual and moral aspects, all of which contribute to work competencies and career development.
- *Social psychology* involves studying human social interaction by understanding the influence of behaviour, beliefs and feelings amongst people. Topics that are studied include attitudes and values, pro-social behaviour (such as interpersonal attraction and affiliation), anti-social behaviour (such as conflict and aggression) and human communication. These social processes form the basis for interaction in work organisations and groups.
- *Cognitive psychology* revolves around the theory and research regarding the so-called "higher mental processes" such as language, intelligence, problem-solving, reasoning, creativity,

decision-making, memory and information-processing.

- *Personality psychology* entails the study of the more or less consistent patterns of behaviour in people across time and situations and how people differ across many attributes or traits. The study of personality also involves the study of factors that influence personality development and motivation, the structure or organisation of personality, personality adjustment and personality assessment.
- *Physiological/ neurological psychology or biopsychology* involves the study of the relationship between human behaviour, feelings and thoughts on the one hand, and neurological and physiological systems on the other hand. These neurological and physiological systems include elements such as genetic factors, the brain, the nervous system, the endocrine system and bodily hormones and chemicals. Research in this sub-field is usually undertaken to allow corrective action in cases of neurological and psychological trauma.
- *Psychometrics* entails the development of psychological measuring instruments (such as psychological tests to measure ability and personality), and the statistical analysis of assessment results to determine the value of psychological assessment and assessment instruments.
- *Experimental psychology* can be utilised in many psychological disciplines and applications, although in early psychology it was used to establish patterns of human behaviour in controlled situations.
- *Health psychology* utilises psychological knowledge to identify the causes and symptoms of physical health and illness, and related dysfunctions. It also focuses on the prevention, treatment, maintenance and promotion of health, including occupational health.
- *Positive psychology*, sometimes considered part of health psychology, is concerned with the enhancement of optimal human functioning. The emphasis is on positive rather than negative aspects of human behaviour and well-being. Positive psychology explores how to enhance human strengths and resiliency so people are healthy and function optimally in all walks of life.

- *Forensic psychology* involves studying the causes of criminal behaviour in context. It involves obtaining and giving evidence in legal procedures with regard to crime, as well as in possible law suits in divorce and child-custody cases. Forensic psychology also involves determining loss with regard to abilities, potential and occupational functioning (for example, owing to neurological damage).
- *Community psychology* involves using, developing and adapting psychological knowledge and practices to improve the quality of life in human communities, especially for deprived and disadvantaged individuals and groups. It also involves training community workers.
- *Cross-cultural psychology* focuses on diversity management or the consideration of differences in and between groups of people with regard to psychological phenomena. It emphasises the role of cultural factors and socialisation in the shaping of human behaviour, and covers topics such as prejudice, discrimination and racism. In this sub-field the relevance and validity of psychological theory for specific cultures or groups is explored, and concepts and theories may be “indigenised”.
- *Consulting psychology* is one of the more recent applied fields in psychology and entails the professional involvement and mentoring of psychologists with individuals, groups and organisations. Consultation services cover most aspects of work life, for example, assessment, training and development, employee and organisational health, and organisational change. Consulting psychology integrates and builds on knowledge and applications from various psychological disciplines, such as I-O Psychology, clinical psychology and social psychology.
- *Industrial and Organisational Psychology* utilises principles, assumptions and methods of psychology to study and influence human behaviour in the work context, for example, to assess, utilise, develop and influence individual employees, groups and related organisational processes (Morris and Mailto, 2010).

Other sub-fields and applications also exist, such as environmental, sports, military, human factors and therapeutic psychology. Recently

coaching and mentoring has been suggested as a separate applied field, because it seems as if psychological coaching and mentoring may add unique value to other efforts of development in the workplace (Lane, 2008).

All these psychological sub-fields utilise relevant psychological theory and methods in their quest to understand and influence human behaviour.

An in-depth discussion of all the academic and applied fields of psychology is outside the scope of this book. However, I-O psychologists should never forget that many of I-O Psychology's current theories and practices are in the knowledge base of the "mother science" which is psychology. In workplaces, knowledge and applications from many psychological disciplines are utilised, and people qualified in these fields are often used in some capacity. In fact, much theory and many research results and methods of other psychological disciplines are integrated into the knowledge and practices of I-O Psychology (Strümpfer, 2007). For example, psychological assessment, career psychology and counselling are used in personnel psychology, and aspects of clinical, health and positive psychology are used to enhance employee and organisational wellness, motivation and the development of leadership.

### 1.3 THE NATURE AND IDENTITY OF I-O PSYCHOLOGY

Whilst I-O Psychology is inextricably linked to psychology, in many respects I-O Psychology has adapted and developed its own identity with unique theories, research areas, applications and academic and professional training programmes that are particular to it. Examples are in job design and selection strategies, as well as assessment methodologies, training and development techniques, career development, organisational development, management and leadership, and employee and organisational health.

I-O Psychology can be viewed as a *scientific discipline* for three reasons:

- It has, utilises, develops and teaches foundational knowledge.
- Its foundational knowledge is supported by effective research.
- It uses many types of tested practical applications and methods to achieve the best fit between the employee and the workplace and to solve work-related

problems.

*I-O Psychology* is a branch of psychology that utilises psychological knowledge (principles, theory, research, methods) in the work context to assess, utilise, develop and influence individual employees, groups and related organisational processes. In general it can be said that in comparison to psychology, which primarily emphasises individual behaviour, I-O Psychology involves individuals and groups in an organisational context. Kline (1997:206) cites the Canadian Psychological Association's definition: "Industrial-Organisational psychologists are able to apply psychological theories to explain and enhance the effectiveness of human behaviour and cognition in the workplace." The Organising Framework for Occupations (OFO) in South Africa describes the skills specialisation of the industrial psychologist as "the application of psychological principles and techniques to study occupational behaviour, working conditions and organisational structure, and solve problems of work performance and work design" (Coetzee and Schreuder, 2010:6). Barnard and Fourie (2007) identified 37 different roles for the industrial psychologist, which they converted to six broad roles, namely scientist/researcher, strategic partner, enabler, developer/counsellor, watchdog and leader. These roles go beyond the usual HR functions, such as selection, remuneration and performance management.

Industrial psychology has only recently been referred to as "Industrial and Organisational Psychology". The term "organisational psychology" was added to "industrial psychology" only in the 1970s (Muchinsky, Kriek and Schreuder, 2005) and the name of this field is still not a generally agreed-upon issue. In South Africa and the United States of America (USA), the field is referred to as "industrial psychology" only, or as "Industrial and Organisational Psychology" (I-O Psychology). In the United Kingdom (UK) the name "occupational psychology" is used, and in Europe the field is referred to as "work and organisational psychology". Though the names differ, in all these countries quite similar contents are emphasised in the theory and applications of I-O Psychology. In South Africa, OFO uses the title "organisational psychologist" to indicate the occupational unit under OFO Code 272303 and suggests "industrial psychologist" and "occupational psychologist" as alternative titles. However, the *Health Professionals Council of South Africa* (HPCSA) still utilises the title "industrial psychologist" to register qualified persons as professional psychologists in this field.

Recent publications emphasise concepts such as human and social capital, talent management, psychological capital and positive psychological capital

(Luthans, Luthans and Luthans, 2004; Luthans, Youssef and Avolia, 2007), and the term “business psychology” is also used in some circles. We believe that despite efforts to discontinue the term “industrial psychology” or replace it with terms such as organisational psychology, work psychology, occupational psychology or business psychology, the terms “industrial psychology” and “Industrial and Organisational Psychology” have become “brand names” to include most of the work-related psychological themes in the literature and practice fields. However, the use of various and new terms may also be indicative of the contemporary and changing roles of industrial or organisational psychologists, which are to:

- develop all resources in workplaces optimally
- develop, in particular, intrinsic human capacities in order to maximise effective employee and organisational behaviour
- facilitate better coping skills in the face of change, problems and adversity.

The advanced, in-depth knowledge and the ability to apply it in work situations is often an important difference between I-O psychologists and trained persons in related fields such as human-resources (HR) management (Aamodt, 2004; Muchinsky, 2006; Coetzee and Schreuder, 2010). HR management often involves only *employment management*; that is, applying or supervising personnel, business and administrative processes, whilst the professional I-O psychologist is an expert on human behaviour and related processes. In many workplaces, however, trained I-O and other psychologists may be employed in HR positions, which may well make a difference to how psychological knowledge and practices are understood and utilised in people and organisational management. The South African OFO Code 2231 allotted a different occupational profile to HR management-qualified and practising persons, which also confirms that HR management cannot be equated with I-O Psychology or personnel psychology (Coetzee and Schreuder, 2010).

Veldsman (2005) indicates the importance of both the industrial psychologist and the HR practitioner, but also points to differences. This book contends that psychology and I-O Psychology are the mother sciences of any hybrid discipline regarding human behaviour, people management and development.

## **1.4 SUB-FIELDS AND PRACTICE AREAS IN I-O PSYCHOLOGY**

I-O Psychology has many sub-fields (Coetzee and Schreuder, 2010) and is

related to other disciplines in its theory, research and applications (for example, ergonomics and consumer/marketing psychology). Psychologists qualified in the practice areas of I-O Psychology are employed in many types of jobs (for example, as specialists, consultants, managers, lecturers and researchers in corporate business, government, private practice, schools, colleges and universities). This section briefly describes some sub-fields and practice areas of I-O Psychology and mentions types of task and/or career opportunities. Most of these sub-fields are applied in organisations and competencies related to these sub-fields would appear in the profile of an experienced I-O psychologist or consulting psychologist.

The descriptions that follow indicate the more typical tasks in the various sub-fields. However, some overlapping may occur.

#### **1.4.1 Organisational psychology**

The South African OFO equate the term “organisational psychologist” to “industrial and occupational psychologists” as being the same, and uses Code 272303 to define the tasks of organisational psychologists (Coetzee and Schreuder, 2010). Organisational psychology is concerned with work organisations as systems involving individual employees and work groups, as well as the structure and dynamics of organisations. Study fields within it include organisational theory and models, leadership and decision-making, organisational development and design (re-engineering), organisational culture, industrial or employment relations, cross-cultural aspects of I-O Psychology and, more recently, an interest in organisations’ external environments. Organisational psychology often includes the field of managerial psychology.

The basic aim of consulting in organisations is to facilitate employee satisfaction and productivity, organisational efficiency and employee adjustment. In the continuously changing world of work, an important focus is planned organisational change and transformation in organisational structures, climate and culture. The aim of this is improving efficiency by facilitating and consulting in organisations to enable them to adapt to and stay abreast of changes in labour and business markets, work processes, employees, technology, and goods and services. In all these areas of practice an important instrument for organisational psychologists is assessment of work-related attitudes (for example, job satisfaction, job engagement, and work and organisational climate, morale and commitment).



**Figure 1.2** Consulting in the work context.

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I-O psychologists specialising in organisational psychology can be employed in corporate business, government, private practice and at universities in various types of jobs. The following are some of their activities:

- assessing/researching employee or work-related attitudes with regard to organisational climate, culture and trust, with a view to improving such attitudes
- being involved in organisational change and transformation, such as in the restructuring of organisations, and in productivity-enhancement interventions
- suggesting and helping design and implementing various types of programmes, such as the identification of management potential, training in job competencies, affirmative action, career management and counselling, performance evaluation and employee-health enhancement.

### **1.4.2 Personnel psychology**

Compared to organisational psychology, personnel psychology has a greater

emphasis on the individual employee. In books and training courses, personnel psychology sometimes also includes aspects of career psychology and/or employment relations (labour relations).

What is referred to as “work psychology” in Europe and the USA is also sometimes included in personnel psychology, and may entail aspects such as task and job analysis, ergonomics and job design, accident avoidance and response, safety and occupational-health issues, and automation in work processes.

Personnel psychology may represent the overlap between HR management (HRM) and psychology. However, personnel psychology is not the same as HRM (Coetzee and Schreuder, 2010). HRM is concerned with the management of human and social resources in context of the employment relationship at workplaces. It “seeks to achieve competitive advantages through the strategic development of a highly committed and capable workforce, using an integrated array of cultural, structural and sophisticated personnel techniques” (Coetzee and Schreuder, 2010:8), the latter for example in attracting, selecting, training, evaluating, appraising, rewarding and disciplining employees.

In contrast to HRM, personnel psychologists inform the work of HRM experts by a scientific focus on utilising individual differences in and between employees and predicting the optimal fit between the employee and the work organisation, as well as providing an understanding of forces that impact on employee and organisational performance. I-O psychologists specialising in personnel psychology are primarily involved in the assessment and appraisal of employees, personnel selection, and placement and promotion of employees in and for organisations. Personnel psychologists may be involved in the construction and validation of personnel-assessment procedures, performance-appraisal procedures and personnel-management procedures. They are also involved in training and development, motivation, reward systems and HR assessment. Many I-O psychologists are involved in personnel or HR management as managers or consultants. Their jobs may include not only expert psychological tasks, but also all the well-known managerial functions of planning, organising, leading, delegating, controlling and developing employees. They may also perform managerial tasks regarding aspects of personnel administration, such as remuneration, illness and leave arrangements, and reward and disciplinary systems. Persons with at least an honours degree and a relevant internship may register as a counsellor in the HR field.

### **1.4.3 Research methodology**

Research involves finding, exploring or verifying psychological knowledge using various methods of scientific inquiry. This research may be of a basic or applied nature with regard to work-related human behaviour and processes in the various sub-fields of I-O Psychology. Though research psychologists can be specifically qualified in the field of research, psychologists specialising in any of the other fields may be involved in employee and organisational research, because research is or should be a support activity in most psychological disciplines and in organisations. It is often included as a major training area in professional and academic psychology courses.

### **1.4.4 Work-related psychological assessment**

Psychological assessment, including psychometrics, is an area of practice that can be viewed as a support discipline for all the other applied areas in I-O Psychology, especially personnel psychology, career counselling, organisational psychology and psychological research. Psychological assessment applied in a work context involves psychometrics, and it entails the validation, development and utilisation of various types of psychological assessment instruments to measure attributes and behaviours of employees in various applications, for example, in the selection, counselling and training of employees.

### **1.4.5 Career psychology and counselling**

Career (vocational) psychology and counselling is concerned with studying issues of career development regarding individuals, the nature of employment and unemployment, career-related issues in organisations and also non-work influencing factors. This field is related to developmental and counselling psychology.

Specific areas of interest are career/job and organisation choices, withdrawal behaviours, career-development problems, factors influencing individuals in their careers, and organisational processes and the changing nature of work that may affect careers.

With regard to research, assessment and intervention, I-O psychologists in this field may be involved in the following: assisting individuals to choose jobs, careers and organisations through assessment and feedback; career planning and development; and helping employees to resolve career conflicts and to work through conflicts that evolve from individual development, life transitions, personal problems or organisational changes. In South Africa qualified persons

with at least an honours degree and relevant internship may be allowed to register as counsellor.

#### **1.4.6 Employment relations**

Employment relations, sometimes also part of personnel psychology and also referred to as “labour relations” or “industrial relations”, is concerned with the behavioural dynamics, communication and conflict management between individuals and groups of employees, employers and other parties (such as the government and labour unions). I-O psychologists involved and interested in this practice area resolve or restructure conflict and assist in negotiations about employee demands and rights according to expectations and legislation. These psychologists may have legal knowledge, especially with regard to labour legislation, however they are not legal experts. They are concerned with the underlying dynamics of the employer-employee-labour union relationships, the reasons why labour unions exist and how they function, why employees choose to join or not join unions, and behaviour during negotiations and labour actions such as strikes and other forms of protest. I-O psychologists, as employment-relations experts, may also be involved in employment or personnel issues such as selection, promotion, remuneration, grievance, retrenchment, dismissal and disciplinary procedures in organisations.



**Figure 1.3** I-O psychologists must understand the reasons for labour actions.

### 1.4.7 Employee and organisational well-being

Employee and organisational well-being is an applied field that is also referred to as “occupational mental health”. It is an established, but long-neglected field that has recently been re-emphasised and redefined. In modern workplaces this is illustrated by health policies and the implementation of health-promotion initiatives such as Employee Assistance Programmes (EAPs).

Some may envisage this area to be a part of career or organisational psychology. However, competencies of experts involved in this field suggest that it should be recognised as a separate practice area, which is the case in South Africa where qualified persons with at least an honours degree and a relevant internship can register as counsellor in this practice field.

Many other disciplines, for example, health psychology, clinical psychology, abnormal psychology, and consulting and organisational psychology also influence the theory and practice of employee and organisational well-being.

Recently, the concept of wellness for employees and organisations has been emphasised from a positive-psychology approach (Snyder, Shane and Lopez, 2007). Wellness or health is seen as the presence of well-being and optimal performance. This health paradigm does not concentrate on illness and negative aspects only. The aim is to facilitate positive psychological capital or resources in organisations and employees, promote good work, and keep them healthy and resilient. Health-promoting factors that are encouraged are, for example, an internal locus of control, positive emotions, happiness, hope, optimism, humour, self-efficacy, personal hardiness and a sense of coherence.

Yet employee and organisational well-being is also concerned with maladjustment and impaired work performance (Lowman, 1993). The focus is on optimal employee and organisational health, factors that may facilitate or hinder effective work performance, medical and psychological illness that may impair work behaviour, specific types of employee and organisational dysfunction, and methods of evaluating, managing and promoting occupational health, including the treatment of impaired work behaviours.

#### **1.4.8 Ergonomics**

Ergonomics, also referred to as “engineering and human-factors psychology” and “human-machine systems”, is considered by some to be a borderline sub-field of I-O Psychology. This may explain why ergonomics is not part of the syllabus for training I-O psychologists at many universities.

It is concerned with understanding human performance in the interaction between employees and their technical work environment. The focus is on the design of equipment, workplaces and the work itself to take account of human factors such as physique, intelligence, emotion and patterns of social interaction. The same principles are involved in the design of many places of human interaction, for example, in home and building design and in transport design involving vehicles, aeroplanes or ships.



**Figure 1.4** Striving for an optimal fit between employees and technology.

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### 1.4.9 Consumer psychology

Consumer psychology, like ergonomics, is also referred to as “economic and market psychology”, and often considered to be a borderline sub-field of I-O Psychology. It is concerned with studying psychological aspects of consumer or economic behaviour. This involves the needs, values, interests and other personal attributes that facilitate decision-making and motivation in buyers and consumers as they search for, purchase, use and evaluate goods and services (Cant, Brink and Brijball, 2006). I-O psychologists in this field may be involved in behaviour and market research to determine marketing strategies that will elicit certain consumer responses, particularly decisions to buy goods or to use services (Hofmeyr and Rice, 2000; Du Plessis, 2005).

In a South African book, Du Plessis (2005) indicates how various brain and psychological processes – such as intelligence, learning, memory, attention,

liking behaviours and emotions – can be utilised in advertisements or marketing strategies. Another South African book, by Hofmeyr and Rice (2000), explores similar processes, focusing on the concept of commitment in consumer behaviour.

Other applications in consumer psychology are the study and facilitation of effective client-service behaviours in business enterprises, the creation of positive customer perceptions, and the facilitation of ongoing support from clients. Consider, for example, the fierce competition between car dealers in offering excellent sales and after-sales service to attract and keep their customers. In this regard customer-service experts may be involved in making organisations aware of their own internal client relationships or customer and service relationships (for example, how interdependent departments in an organisation use and consume their specific goods and services).

#### **1.4.10 Other applied fields**

Other applied fields of I-O Psychology are cross-cultural industrial psychology, management and leadership, entrepreneurship and diversity management.

In addition, apart from being specialists in work-related human behaviour, I-O psychologists often also have an important function in the strategic positioning of organisations in the marketplace. They might contribute to an organisation's mission and vision, assist in determining business goals, contribute to long-term sustainability of the organisation, promote a positive corporate identity, and contribute to an organisation's social responsibility (Barnard and Fourie, 2007:49–51).

#### **ETHICAL READER: Diversity management**

Diversity management entails considering and managing the many factors that could influence workplaces or could contribute to the structure and composition of organisations. Apart from the many personal differences between individual employees and groups, their cultural values, habits, norms and preferences also contribute to differences.

Cultural factors can have a decisive influence in the workplace as they may give direction to certain work behaviours and demands, as well as phenomena such as prejudice, racism and discrimination. In workforces, differences between employees can be intensified both

by the values that different cultures uphold with regard to work, and by the impact of changes in the work scene, which could influence them in different ways. For example, changing sociopolitical dispensations and labour laws will affect different employees in different ways, as will mergers, acquisitions, personnel reductions and new technology in the workplace.

## 1.5 THE HISTORY OF I-O PSYCHOLOGY

The history, development and origins of I-O Psychology are closely related to the history of psychology, though psychology is a much older science, started by Wilhelm Wundt in 1879, when he defined psychology as the systematic study of conscious experiences, for example in attention, sensation and perception.

The origin of I-O Psychology and its various sub-fields was closely related to the Schools of Thought in Psychology (discussed in Chapter 2) as well as to the theory, research and applied science in psychology. It is clear that before I-O Psychology started to function as an applied and professional science, much early thinking and many applications of psychology in various areas already existed, but it was also influenced by other disciplines such as philosophy and the biological sciences (Pawlik and Rosenzweig, 2000). This is especially true in the field of psychological assessment (for example, intelligence and ability measurement), and personnel psychology which was two of the early applications of I-O Psychology, and still is a central function in the theory and practice of I-O Psychology (Riggio, 2009; Schultz and Schultz, 2010).

Early contributions in psychological assessment were made by Gustav Fechner (1860) and other psychologists and, in the early 1900s, by Francis Galton, Alfred Binet and Theodore Simon. The latter two constructed an intelligence test, the Binet-Simon test, which influenced cognitive measurement around the world for a long time. In the early 1930s too, psychologists such as Charles Spearman and Louis Thurstone extended theories on intelligence and ability structures (what intelligence is made up of) and, by using tests such as the Binet-Simon test, started to research the relationship between work and intelligence factors (Riggio, 2009; Schultz and Schultz, 2010).

Industrial psychology became an independent field of study and practice in the early 1900s (Muchinsky, Kriek and Schreuder, 2005; Coetzee and Schreuder, 2010). The date could be set at 1903 with Walter Dill Scott's publication *The theory of advertising*, or at 1910 when Hugo Münsterberg wrote his book

*Psychology and industrial efficiency* (Aamodt, 2004). During this period psychologists and other experts (for example, Scott) recognised that the human factor was a neglected topic in work and business efficiency. They started to apply psychological knowledge to solve work-related problems, and to improve employee and business efficiency (for example, in the analysis of jobs and the selection of employees, the influencing of people through advertising, and the assessment of the role of supervision in work).

In 1911, Frederick Taylor, in his book *The principles of scientific management*, proposed what is arguably one of the first scientific approaches or paradigms to employee and organisational management, and which has become known as “Taylorism” (Muchinsky, 2006). Taylor advocated studying and analysing work processes, and determining standards and the best work methods. According to Taylor, this information should be used when selecting and training the best employees. Taylor believed that scientific-management principles would both satisfy employees and help a business to meet its goals. He thought that by paying employees more money for higher productivity their need for financial rewards and their “natural laziness” would be solved, whilst the business goal of getting the highest productivity at the lowest cost would also be met.

However, Taylorism was criticised for exploiting employees to achieve higher productivity. Critics also asserted that Taylorism neglected employees’ differences and ignored employees’ growth needs. This caused employees to become too specialised in certain jobs, thus facilitating unemployment. That said, some of the principles of Taylorism still have value in amended form in modern work environments.



**Figure 1.5** Hugo Münsterberg is considered the originator of I-O Psychology.

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Some of Münsterberg's ideas, which were expressed in *Psychology and industrial efficiency*, were quite similar to Taylor's, especially with regard to the analysis and design of jobs. However, Münsterberg emphasised the necessity of considering the total employee and all possible influences in work processes. He also contributed to other areas such as fatigue and accidents, psychotherapy, and forensic and aviation psychology. Münsterberg (some also include Scott and Taylor), is often regarded as the originator of industrial psychology (Muchinsky, 2006). Münsterberg, through experimental research, emphasised the importance

of work environments and factors such as fatigue, monotony, learning, work satisfaction, as well as personnel selection, work and equipment design and employee rewards.

During these early years too, Lilian Gilbreth was one of several quite influential female psychologists who especially emphasised the human factor in employment and utilised specialised research to indicate the impact of stress and fatigue on employee performance.

Much of the findings of the *Hawthorne experiments* are still valid. They led to the so-called “human-relations management” approach, which emphasised that social relations in the workplace may be more important motivators of work performance than work design and financial rewards (see box below).

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## **The Hawthorne experiments**

The criticism of Taylorism was especially highlighted in the Hawthorne experiments, conducted over a period of more than ten years at the Hawthorne works of the Western Electric Company in the USA. Under the leadership of Elton Mayo, psychologists from Harvard University researched the influence of physical work factors, such as levels of illumination and lengths of rest periods, on work performance. In these studies it was found that employees' work performance may vary between employees even if employees follow specific procedures and standards under strict supervision. It was further established that certain psychological and social factors in people and in workplaces influenced work performances markedly. For example, employees responded positively if they felt valued and respected, and if they were allowed to form social groups.

The human relations approach evolved in related approaches, for example McGregor's theory Y, and still has a place in modern organisations (Luthans, 2008), however over time it has evolved into various, more complex management approaches. Examples are contingency-management approaches and systems thinking. These approaches recognise the many factors (in individual employees, work groups, organisations and the environment) that may influence employee work behaviours and organisational efficiency.

Even before World War I, industrial psychology started to be recognised and to have an impact. Psychologists were employed in business, more applied research was executed, and psychology showed that it could be used to improve business efficiency. However, development in industrial psychology was influenced strongly during and by World War I (1914–1918) and World War II (1939–1945).

During these wars the role and importance of individual differences were emphasised. In the USA, Robert Yerkes, then president of the American Psychological Association (APA) stimulated even more interest in individual differences when the APA suggested psychological assessment and research to diagnose possible mental problems amongst army recruits, and to help in the placement of soldiers in different types of military-related jobs. Not all these suggestions were accepted. However, about 1,7 million military recruits were

intelligence-tested, and arguably some of the first performance appraisals, job classifications and job descriptions in applied industrial psychology were executed by Scott (Muchinsky, Kriek and Schreuder, 2005). The end of the war in 1918 halted further contributions that Yerkes and others had hoped psychological assessment and research could make.

However, the following had been important contributions during these war periods:

- the development and use of psychometric tests, especially ability tests (at that stage the so-called “Army Alpha” and “Army Beta” intelligence tests)
- personnel psychology developed more in applications such as personnel selection, job descriptions and employee specifications.
- the study of stress under conditions of war and its treatment after war
- the growing recognition of psychologists and the profession of psychology, which after the war contributed to more psychological research and the establishment of many psychological consultation companies
- the founding in 1917 of the *Journal of Applied Psychology*, one of the oldest journals in the sub-field of industrial psychology (and which is currently still an authoritative publication).

These trends continued in the USA from 1919 into the 1940s, when many psychological research institutions were established, some of which still exist. These institutions aimed to further psychological knowledge through basic and applied research to solve work-related problems, such as the more effective selection of employees across jobs and job levels. The afore-mentioned Hawthorne studies, which identified important psychological and social factors as important determinants or motivators of employee performance and business success, were also executed in this period (1924–1936) and influenced later research in I-O Psychology immensely, for example in topics such as attitudes, motivation, leadership and group processes. A further important finding of the Hawthorne studies was the “Hawthorne effect”, which indicates that after new experiences or interventions (such as training), employees may improve their work performances, but that this enhanced work behaviour may return to the original state once the novelty of the event has passed. This principle is still considered in contemporary research and HR management. For example, initial research findings are checked to ensure that initial findings are consistent, such as that learning during training is transferred to and sustained in the actual workplace.

World War II developed industrial psychology into a more acceptable,

sophisticated and diversified science, academic study field and applied field (Muchinsky, 2006). During this war, about 12 million soldiers were assessed, especially using the Army General Classification Test (AGCT), and placed in various job categories. This intensive testing was a benchmark in the development of group-testing procedures. Other contributions at this time were officer selection for training purposes, and the development of more aptitude tests and trade-proficiency tests. Stress research was furthered by the development and application of situational tests in experimental situations to assess the emotional and interpersonal reactions of participants under stressful conditions. The selection of pilots was improved by the assessment of recruits' reactions and difficulties whilst flying a real plane. This assessment facilitated the beginnings of engineering psychology (currently referred to as ergonomics), a sub-field of applied I-O Psychology. These developments also served a wider purpose: the psychological knowledge and methods used in the military effort were transferred to civilian work life. Examples are the use of tests for employee selection, the assessment of employee attitudes and morale, and the study of the dynamics of employee absenteeism.

Since World War II, industrial psychology has become a recognised science and has a diversified body of literature, institutions and professional bodies. It has a specific professional identity, and (as discussed in section 1.4) it also offers many specialised practice areas through its various sub-fields.

During the 1950s into the 1970s a range of civil-rights laws were implemented in the USA. There was a focus on fair and valid selection procedures in businesses, which increased the need for industrial psychologists. During this period “sensitivity training” and “training groups”, with the focus on personal development, were implemented, aspects of which are still used today. Organisational psychology and related topics (such as organisational development, employee motivation and job satisfaction) expanded. Eventually this led to the term “industrial psychology” being amended to “I-O Psychology”. A few important contributions during this time were the following:

- Carl Roger and Abraham Maslow’s motivational theories supported the human-relations movement.
- Peter F Drucker proposed the so-called Management by Objectives (MBO) approach and used it in performance management of employees.
- Douglas McGregor initiated the well-known Theory X (i.e. lazy employees/authoritative management) and Theory Y (diligent employees/human relations) to indicate types of relationships between

employer and employee.

- David McClelland formulated his theory of achievement motivation and Vroom proposed his ideas of valence, instrumentality and expectancy, which would later form part of expectancy motivational theory.
- Frederick Herzberg proposed his two-factor theory of motivation (satisfiers or motivators and dissatisfiers or hygiene factors), and Edwin Lock suggested a goal-setting approach to motivation.
- In the 1960s Katz and Kahn published the well-known, classic text on organisational behaviour from a social and systems perspective.
- All over the world, including in South Africa, industrial psychology as a study field was offered at undergraduate and postgraduate academic levels, as well as for training of professional psychologists.

During the 1980s and into current times I-O Psychology can be said to be an integrated and independent discipline and is characterised by amongst others the following tendencies:

- emphasis on other management approaches, for example Japanese in their ways of management, quality and production processes
- sophisticated statistical techniques used in work-related psychological research
- the influence of cognitive psychology in workplaces (for example, the assessment of employees' thought processes in performance appraisals)
- an emphasis in research on employee and organisational well-being, for example, the interaction between work, family and leisure activities in research on work stress and workplace violence
- the use of more types of selection strategy and technique in employee selection and a more critical attitude with regard to psychological assessment issues and the use of psychological knowledge
- a strong emphasis on race, cultural, minority, gender and ethical issues in psychology and I-O Psychology and its applications in work-related environments
- important developments in organisational psychology with regard to group dynamics, organisational development and re-engineering and transformation in workplaces
- the emerging of and re-emphasis on positive psychology and related concepts with its emphasis on health and the growth aspects in human behaviour and well-being
- psychological disciplines have become more "open" and consultation and

exchange of knowledge and practices happens between institutions and persons across the world.

Many of the above-mentioned developments also influenced and still influence developments in psychology and I-O Psychology in South Africa. This is evident in academic training, the use of literature, applications in practice, research and psychological assessment, as well as professional institutions and related processes and practices.

### **1.5.1 The development of industrial psychology in South Africa**

Much of the knowledge as well as the application of methods and practices from American and European influences, are applicable in South Africa because of the generic nature of human attributes and psychological principles across cultures and countries. This has been verified by research (Biesheuvel, 1987; Berry, Poortinga, Segall and Dasen, 2002). These authors and many others also point, however, to cultural differences in many respects, and, increasingly, South African psychologists must be critical and be alert to the need for the indigenisation of psychology and its methods in the South African context. Many South African work-related problems are unique to the diverse nature of South Africa's history and people (Hook et al., 2004).

Fortunately, South Africans have contributed, and still do, to psychological knowledge and applications relevant to South Africa and also in the rest of the world. A special edition of the *South African Journal of Industrial Psychology* (2001, 27(4)) deals with various issues regarding industrial psychology as a discipline and profession. Since the 1990s, much has been achieved in both the democratisation of psychology in South Africa and in the more widespread availability of psychologists and psychological services. The progress made by psychology in South Africa is also illustrated by the corporate management of psychology in South Africa, greater integration of race and gender groups with regard to psychology, more trainee psychologists and registered psychologists of colour, and the recognition of alternative and traditional methods of psychological intervention.

Over the years many institutions and people have contributed to the development of psychology and I-O Psychology in South Africa (Raubenheimer, 1974a, 1974b, 1987; Louw and Edwards, 1997; Schreuder, 2001), of which this chapter can only refer to some. Currently, researchers at the University of Cape

Town are busy documenting the development of psychology in South Africa.

The Department of Industrial Psychology at Stellenbosch University has existed since the 1940s. At the University of Pretoria the late Professor Daan Swiegers was instrumental in establishing, in the early 1970s, the Department of Industrial Psychology, which was later referred to as the Department of Personnel Management, and then as the Department of Human Resource Management. A similar change happened at the University of the Orange Free State where Professor H P Langenhoven was instrumental in establishing a department of industrial psychology, later renamed the Department of Personnel Management. A prominent academic and psychological practitioner, Professor I W Raubenheimer, was instrumental in initiating an independent I-O Psychology department at the University of South Africa in 1969. In 1979 he established one at the then Rand Afrikaanse University (RAU), now called the University of Johannesburg (UJ). Various other departments of industrial psychology developed at the then traditionally black universities, often in association with Unisa.

Departments of psychology, of which industrial psychology was a part, developed much earlier at other universities. For example, in 1926 there was a separate psychology department at Rhodes University College and in 1936 at the University of the Witwatersrand. At most English universities industrial psychology stayed a part of the departments of psychology in faculties of humanities or social sciences for many years. This was in contrast to the situation at Afrikaans universities, where industrial-psychology departments became separate departments and were most often part of faculties of economic and management sciences.

In 1948, the Psychological Association of South Africa (PASA), to which industrial psychologists were also associated, was established. However, in 1955 Afrikaans-speaking psychologists left PASA and started the Psychological Institute of the Republic of South Africa (SIRSA), which divided psychologists along the lines of race and language.

In 1974 the *Professional Board for Psychology* (PBP) was established, under the control of relevant health legislation and the then South African Medical and Dental Council (SAMDC), to further the interests of psychologists. In 1977, clinical psychologists who were dissatisfied with PASA and SIRSA established the Institute for Clinical Psychology (ICS). This move was followed by other interest groups, such as industrial psychologists, in the establishment of the Society for Industrial Psychology (SIP), which later changed to the Society for

Industrial and Organisational Psychology in South Africa (SIOPSA).

In 1982 PASA and SIRSA and all the separate psychological institutes were reunited into one body, the Psychological Society of South Africa (PSSA). In 1994, following many political differences dating from the early 1980s, this was changed to the still-functioning Psychological Society of South Africa (PsySSA). However, in 2005, SIOPSA decided to break away from PsySSA and function on its own as a separate body under the Professional Board of Psychology (PBP), which is part of the Health Professions Council of South Africa (HPCSA), previously the SAMDC.

Currently, some conflicts and differences between various groups in psychology in South Africa may still exist, but a large measure of integration and unified thinking and practices in psychology and related sciences has also developed. There are now more unitary and integrated psychological societies, new unbiased psychological training models, and health-care systems that do not exclude people through discrimination. At universities various psychological disciplines are offered at all levels as academic study and as professional practice areas. Universities and designated psychologists also serve as professional supervisors for internships, as well as being the main psychological research houses (Schreuder and Coetzee, 2009). The world of work is well represented in South African psychology, because practitioners from many walks of life are integrated into psychological practices, for example, in teaching and research at universities and at institutional level, for example serving in psychological control bodies and participating in annual conferences.

Currently in South Africa the interests of industrial psychology as a science and practice field are promoted in many ways, such as by academic and professional training programmes and research at universities, through PsySSA and SIOPSA, through international and local associations and networking, in annual conferences, and through the publication of research findings and practices in local and international journals (for example, the *South African Journal of Industrial Psychology*, the *South African Journal of Psychology* and the *Journal for Psychology in Africa*). Since 2005 Siopsa has done much to promote the interests of I-O Psychology in South Africa. It has addressed issues such as ethical and fair psychological practices, considering South African culture in psychology, and a continuous drive to keep South African psychology and related practices relevant and “future-fit” to satisfy ever increasing needs and changes.

Part of the relevance of psychology in South Africa, is psychology’s practice

frameworks which are related to academic and professional training of psychologists in order to provide much needed practicing psychologists in all walks of life.

## **1.6 PROFESSIONAL TRAINING AND PRACTICE ISSUES**

The training of psychologists and I-O psychologists in South Africa is governed by various bodies: the Department of Higher Education, academic departments of psychology at universities and the PBP. The HPCSA regulates aspects related to all health-related practitioners in South Africa, yet the PBP actively represents the interests of psychologists and is the main controlling body on issues regarding psychological training, practice and conduct, as stipulated by the relevant legislation, ethical codes and other guidelines. The Board, in consultation with academics, practitioners, psychological associations and other interested parties, specifies certain requirements for learning content and practical training (from undergraduate to honours degree and masters degree levels, as well as internships for professional training).

The honours and masters qualifications will lead to professional registration as a psychologist at the PBP, if the specified academic requirements, as well as the practical training requirements, have been fulfilled. At this stage, a person with an accredited I-O honours degree, having completed an approved practical training programme or internship of six months, and having passed the Board entrance examination, may register as either a psychometrist (a person competent in psychological assessment) or as counsellor in one or more specified practice areas (such as career counselling, employee well-being or HR). For honours degrees in other psychology departments, other types of practice areas have been approved by the Board.

For selected students (including those studying I-O Psychology), registration as a professional psychologist can be achieved once at least a masters degree consisting of a one-year coursework programme, a thesis and a one-year approved practical programme or internship have been completed, and a Board entrance examination passed. At the time of writing, registration as a professional psychologist is possible in the practice areas of industrial, clinical, counselling, educational and research psychology.

Specialisation within these categories depends on personal interest and work experience, as well as specific training courses and doctoral studies. A doctorate

can be obtained by completing a doctoral thesis in a specified field of interest. Specialist doctoral degrees can be followed at some universities (for example, in consulting psychology at Unisa).

### **Professional associations and bodies representing I-O psychologists in South Africa**

With regard to psychology in South Africa, the HPCSA is the regulating body for the PBP of South Africa, which in turn controls the Psychological Society of South Africa (PsySSA), the *Society for Industrial and Organisational Psychology In South Africa* (SIOPSA) and other related institutions and interest groups. I-O psychologists in South Africa may affiliate themselves to SIOPSA, in the same way that other types of psychologists belong to societies for clinical, educational, counselling or research psychology.

There are other special interest groups (for example, interest groups for assessment centres, psychological assessment, forensic psychology and private practice). The Psychological Assessment Initiative (PAI) has the task of promoting the best practices regarding psychological testing in South Africa. These practices are illustrated in a booklet published by PAI, *Code of practice for psychological assessment in the workplace*, and one published by SIOPSA, *Guidelines for the validation and use of assessment procedures for the workplace*.

In South Africa, various universities and other institutions train HR or personnel practitioners too, through degrees, diplomas and certificates. The training and practice of HR practitioners is controlled by a non-statutory body, the South African Board for Personnel Practice (SABPP), who since 2008 has also had an association with SIOPSA. Unlike the PBP, it is not controlled by governmental legislation. However, at the time of writing, SABPP is seeking statutory recognition. Depending on qualifications and competency levels, personnel practitioners can register in various categories with the SABPP (Coetzee and Schreuder, 2010). Some psychologists, especially those who work as personnel practitioners, are also registered with the SABPP.

According to legislation, personnel practitioners who are not

trained and registered as psychologists with the PBP may not perform tasks that can be classified as psychological acts, which include all aspects related to psychological assessment, counselling and therapy.

Psychological practice requirements, professional and ethical conduct towards customers and colleagues, as well as other interests of psychologists in South Africa, are governed and facilitated by the HPCSA, according to the Health Professions Act, No. 56 of 1974, and its amendments. The legislative context for I-O Psychology practice in South Africa includes other governmental and labour legislation.

## **1.7 FUTURE CHALLENGES FOR I-O PSYCHOLOGY**

One important challenge is how to use existing knowledge and practices, or how to develop and adapt these knowledge and practices, so as to improve the leadership, work forces and business enterprises for future work contexts.

This means that I-O psychologists in South Africa must be able to speak the language of business; they must be “future-fit”. This translates into responding on ongoing changes in customer needs, and changes in the nature of work, workplaces and organisations (Hodgkinson and Ford, 2007; Lane, 2008; Landy, 2008; Parker, 2008; Silvester, 2008).

Will future psychologists succeed in making employees and organisations more adaptive to change, and more self-efficacious and resilient? There are many new developments that will influence the practices of I-O psychologists.

Work will increasingly become a mix between technical and non-technical tasks, and the technical tasks may often change because of new technologies and changing task requirements. In many cases work will be more complex in nature and require more advanced cognitive competencies. In this regard work may require less of a general intellectual ability and more specific abilities.

Diverse work experiences may become more valuable, and workers may try to be multiskilled and be able to do tasks when they are required by market demands. Traditional job analysis and job descriptions may become less frequent, because work tasks may be less stable and be required on a “need to do now” basis. Job tasks would then be defined as work roles and in a competency-

based manner.

Many changes in future work settings will increase work stressors on employees. This will require the optimal promotion of all possible psychological health resources in organisations. Organisations will also have more workers working from home, as well as more contingent or temporary workers. This will cause some work contracts to be short term, and have implications for organisational structures, career development and HR management.

Whilst business has become more global, it has also faced new demands regarding personnel selection, HR management, global learning in organisations, multi-cultural diversity and the psychological well-being of expatriates. In many countries it will be a continuous challenge to create sufficient meaningful employment in the midst of growing sophistication in technology, business mergers and downsizing, and decreasing job opportunities.

Diversity management will become more important in workplaces. Diversity in workplaces will influence the criteria used to assess work performance.

Work outputs may be measured less in terms of observable performance and more in terms of interpersonal skills, adaptive behaviours, situational-judgement competencies and organisational-citizenship behaviour (that is, employees who are prepared to “walk the extra mile”). As team work will become more important, the measurement of individual differences may become less important and the measurement of group characteristics and performance may become more important.

Measurement of work performance may also be more subjective and not so accurate, because of the changing nature of work tasks, the short-term nature of jobs, and the fact that job competencies may be based more on work-related personality attributes.

The changing nature of required work competencies will also necessitate the ongoing revision of validity theory in the assessment of employees. An integrated view of validity should include ongoing consideration of the role of psychometrics in I-O Psychology and how validity indications are interpreted and used. This would not only apply to predictor criteria (e.g. psychological tests). It would require new thinking about work-success criteria as well as about the relationship between employee attributes and work performance.

Less stable work forces and other factors of change will increasingly decrease the value of the “psychological contract” between employer and employee. New work-relationship contracts will have to be created, with considerations for ethical, human-rights and legal issues.

The changing nature of work will render theories and concepts in work psychology, for example, some motivational and career-development assumptions and concepts, less applicable for many individuals. New theories will need to encourage more self-management in careers and entrepreneurship.

Technology such as the Internet, intranets and electronic-learning systems will be used more often to execute personnel and organisational functions. They may assist in recruitment, selection, performance management and training, as well as other types of decision-making. However, they also raise concerns with regard to “human-machine interaction” and privacy. Psychologists operating in the work context will need to continuously reflect on the type of knowledge that they apply. Change across time and between situations requires new ways of thinking and doing, and of interpreting existing ideas.

## **1.8 SUMMARY AND CONCLUSION**

The aim of this introduction to I-O Psychology is to create an understanding of the role of psychology at work in the South African work context, as well as how it may relate to possible future studies and work opportunities. The chapter aims to foster an understanding of I-O Psychology as an applied field of psychology, its origins and importance in the study of work life, the types of study and job opportunities available, and issues regarding the professional training and registration of psychologists, as well as some future challenges to I-O psychologists.

The training and practice of psychology in South Africa occurs in the South African sociopolitical context and is considerably influenced and directed by some legislative requirements and sensitive social and ethical issues. In essence, all these moderators aim to eventually achieve the fairest work-related treatment for each applicant and employee. South African I-O psychologists should embrace the principles involved in the South African constitution that proscribe discrimination on any grounds against any person. Also, from an objective scientific stance, they should embrace the mission to further an optimal work life for individuals, groups and organisations, and, in doing so, to serve society by using the most relevant theory and following the best practices as verified by scientific research. One such goal is optimising the best fit between employee and workplace through fair practices and the recognition of individual differences in order to develop people’s potential as much as possible. A further objective should be optimising employee adjustment and health, in relation to

both family life and the ever-changing environment of work.

This book and chapter should provide a solid start in getting to know psychology and industrial psychology as applied sciences. For a career in I-O Psychology, the book presents important foundational knowledge, research findings and applications. It also points out challenges and fluctuations that could face I-O psychologists. It helps aspiring psychologists to develop the resources to help people in a positive way.

## **1.9 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Why can I-O Psychology be considered an applied discipline of psychology?
  - a) I-O Psychology has scientific journals and publishes work-related research.
  - b) It also uses foundational knowledge and applied psychological methods.
  - c) Its concepts and assumptions are supported by empirical research.
  - d) I-O Psychology has a shared history and knowledge base with psychology.
  - e) It is also recognised as a separate psychological practice field.
2. An important difference between psychology and I-O Psychology is that:
  - a) Only I-O Psychology has foundational knowledge and applied fields.
  - b) The two disciplines do not share any historical events of origin.
  - c) Only I-O Psychology can be viewed as a scientific discipline.
  - d) I-O Psychology does not use psychological concepts and methods.
  - e) I-O Psychology puts emphasis on the individual and groups.
3. Imagine that after having taken care of three children until the youngest entered high school, parents got divorced and the 40-year-old mother is forced to find a job and career. In her hunt for a job, employers mostly refer to her age, qualifications now being out-dated and little experience in the current business market. She has asked for your assistance as an organisational psychologist, and you rather decide to refer her to:
  - a) a consulting psychologist
  - b) a career counsellor

- c) a personnel psychologist
  - d) an educational psychologist
  - e) a developmental psychologist.
4. In finer analysis one can say that the Hawthorne experiments actually contributed to:
- a) the recognition of psychology and I-O Psychology as a science
  - b) evidence that the design of workplaces are the most important production factor
  - c) the establishment of psychometrics as an applied field of I-O Psychology
  - d) the consideration of social factors in employees' work performance
  - e) theorising and researching factors which motivate employees.
5. In South Africa, which one of the following bodies is active and influential in controlling and monitoring psychological training and practice in various health professions?
- a) Professional Board for Psychology
  - b) Society for Industrial and Organisational Psychology
  - c) Health Professions Council of South Africa
  - d) Psychological Society of South Africa
  - e) National Board for Higher Education in South Africa.

### **Answers to multiple-choice questions**

1. = d); 2. = e); 3. = b); 4. = e); 5. = c)

## **Issues for discussion and practice**

1. Explain why you agree or disagree with the argument that I-O psychologists and HR managers have different and complementary roles in employee management and in the running of a business or organisation.
2. Explain the relationship between I-O Psychology and psychology. Also discuss whether I-O Psychology should be a separate science from psychology.
3. By thinking about your own work situation, or by talking to an expert in the field, try to establish which schools of thought and approaches specific to I-O Psychology are used in current people management and business practices in South Africa.
4. By analysing the tasks in the various applied I-O Psychology practice areas and your own attributes and expectancies, explain why you would like to have a job or career in one or more of these applied fields.
5. Give arguments why you think psychologists in South Africa should have a more prominent role, compared to politicians, than they have now.

## CASE STUDY

As a consulting psychologist you are tasked to facilitate challenges experienced by a newly formed and forming organisation, plagued by mistrust and conflict. The organisation is a retirement complex of 500 living units (houses and flats, more or less 1 000 people living and working there). The living units are mainly occupied by owners, but also some tenants ranging in age from 50 to 90 and varying degrees of health and well-being. Currently a managing committee or board of trustees, also owners of living units, and some not staying in the complex, have been appointed by the owners to manage all the affairs of the complex. The first two teams of trustees were forced to resign because of internal conflicts as well as conflicts and mistrust between the owners and the board of trustees, and the developer company. Some of the current trustees and members of the various sub-committees (portfolios) are from the previous trustees and committees.

The developers (the business who built and developed the complex) initially had all the power and still exert a lot of power, in that some of the developer's senior personnel are also owners of living units and have alleged financial and business interests with independent contractors. The developer was also dominant in appointing the first trustees, installing a system according to which the board of trustees must function, appointing sub-contractors to assist in the development of the complex, as well as appointing three independent contractors to attend to security, provision of food in the cafeteria and for about 20 frail care centre inhabitants, and managing the frail care centre and related health tasks for the complex. The developer and its sub-contractors was and is still accused of providing poor work quality and of not making good on promises to correct the many mistakes in the corporate areas and living units. One of the independent contractors was fired. This left a new contractor with the task of restoring used and abused facilities. The current board of trustees has now also appointed a specialist property management company to manage all affairs of the complex in association with the board of trustees, including managing the

contracts of the independent contractors. However, the board of trustees still holds all decision-making powers, especially with regard to financial matters and other important decisions. The board of trustees, however, must obtain approval for certain decisions, for example, increase in levies and other financial and operational matters from the owners on annual meetings or special owner meetings. In the past, and even under the current trustees, some of these annual and special meetings have ended in chaos and were characterised by sabotaging behaviour of certain individuals and conflicts between owners and with the trustees.

Although things are slowly improving, the complex is still plagued by mistrust, other forms of negativity and conflict. Individuals and coalitions from previous trustee groups together with one of the independent contractors are misinforming and influencing some owners and are constantly in conflict with the board of trustees. They are creating a counter-productive climate in the complex and between individuals and groups with the result that decisions and progression in executing necessary tasks are often frustrated and slowed down. Aspects of mistrust and problems include: owners are said not to be informed; the board of trustees is not performing, is controlled by and is in cahoots with the property management company; independent contractors are not working according to their contracts and refused to acknowledge the rights of the board of trustees as stated in contracts; the appointments of the independent contractors is said to be the result of nepotism and not according to legal tender processes; a large amount of money disappeared due to uncontrolled processes which allowed fraud to take place; there are problems with the few administrative personnel who are employed by the board of trustees; and there is disagreement amongst owners with regards to the rules for the complex and difficulties experienced by the trustees of the various portfolios to have owners comply to the current set of rules. It seems as if many owners believe they can do as they please with little consideration for other inhabitants, as long as their own needs are satisfied.

After analysing this organisation's profile, you have decided to select a team of expert I-O psychologists from different practice areas to assist you in your task.

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1. Which types of specialists will you choose?
2. Give reasons for your choices, explaining what you expect each specialist to achieve in this organisation.

## **CHAPTER 2**

# **Exploring the metatheory of Industrial and Organisational Psychology**

*Theo H Veldsman*

2.1.

[Introduction: Aim and structure of this chapter](#)



[The four worlds of I-O Psychology and the importance of I-O Psychology's metatheory](#)



## The metatheory of I-O Psychology



## The metatheoretical building blocks of I-O Psychology

2.5

[I-O Psychology metatheoretical perspectives: Past, present and emerging](#)



## Summary and conclusion



## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- describe the four worlds which make up Industrial and Organisational Psychology (I-O Psychology)
- state why it is critically important to have clarity on the metatheoretical principles that confirm I-O Psychology as a science and practice
- name and discuss the building blocks making up the metatheory of I-O Psychology
- list the questions related to each of the metatheoretical building blocks of I-O Psychology
- discuss the possible answers that can be given to these metatheoretical questions, and how these answers ground I-O Psychology as a science and practice
- explain the psychological Schools of Thought as a thinking framework for I-O Psychology
- describe your personal metatheoretical principles that should shape your thinking about I-O Psychology as a science and practice.

## 2.1 INTRODUCTION: AIM AND STRUCTURE OF THIS CHAPTER

Work has been central to the life of people throughout the history of humankind. This is true whether we were and are gatherers or hunters, farmers or herdsmen, factory workers or knowledge workers, employers or employees. Through work, people:

- either by working on their own or in organisations, *deliver products and services* that make continued life on earth possible and meaningful
- *are rewarded* for producing these products and services, by either being paid a salary as an employee, or by being paid by a client/customer – and in this way, *earn a living*
- *give expression to themselves as individuals*
- *feel enriched as individuals*

- are seen as *contributing and being valuable members of, and citizens in, our community and society.*

Psychology studies human mental processes and behaviour in individuals and groups. The field of Industrial and Organisational Psychology (I-O Psychology) studies human work from a psychological perspective in all of its various manifestations. These manifestations include individual, team, and organisational work.

In essence I-O Psychology deals with:

- the working person
- his/her work setting
- how to establish and sustain the best match (or fit) between the working person and his/her work setting in order to bring about productive, satisfying and meaningful work which delivers something of value.

The objective of I-O Psychology is achieved using and applying psychological knowledge to the world of work. Some of the areas covered by I-O Psychology in the utilisation and application of psychological knowledge are:

- assessing the abilities of persons to meet the requirements of jobs
- improving the effectiveness of a work team to work together
- determining the attitudes of employees towards their work, their leaders and their organisation
- designing the structure of an organisation
- affecting organisational culture change in an organisation
- addressing the well-being of employees
- assisting with the merging of two or more organisations.

Ever since its founding over a hundred years ago I-O Psychology as a science and practice has been, and is, influenced by many different thinking frameworks. This is also known as the metatheory of I-O Psychology. One of these thinking frameworks is the schools of psychology, dealing with different ways of looking at the human psyche. Before engaging with the various applications of psychological knowledge to the field of I-O Psychology, you will need to be clear on what these thinking frameworks (including the schools of psychology) are, and what impact they can have on one's view of I-O Psychology as a science and practice field. Insight into these thinking frameworks will enable you to not only critically engage and reflect on the field of I-O Psychology, but also to think in new ways about the field.

The *aim* of this chapter is to discuss the nature and make-up of the metatheory

of I-O Psychology. More specifically, it is to address the metatheoretical *options and positions presently held* in I-O Psychology which could affect the science and practice of I-O Psychology. The chapter is structured as follows:

- firstly, the four worlds and the importance of the metatheory of I-O Psychology are discussed (Section 2.2)
- secondly, the metatheoretical landscape of I-O Psychology is mapped by identifying the building blocks which make up the metatheory of I-O Psychology (Section 2.3)
- thirdly, each of these building blocks are discussed (Section 2.4)
- fourthly, an overview is given of the past, current and emerging metatheoretical perspectives (or thinking frameworks) informing the science and practice of I-O Psychology (Section 2.5).

## 2.2 THE FOUR WORLDS OF I-O PSYCHOLOGY AND THE IMPORTANCE OF I-O PSYCHOLOGY'S METATHEORY

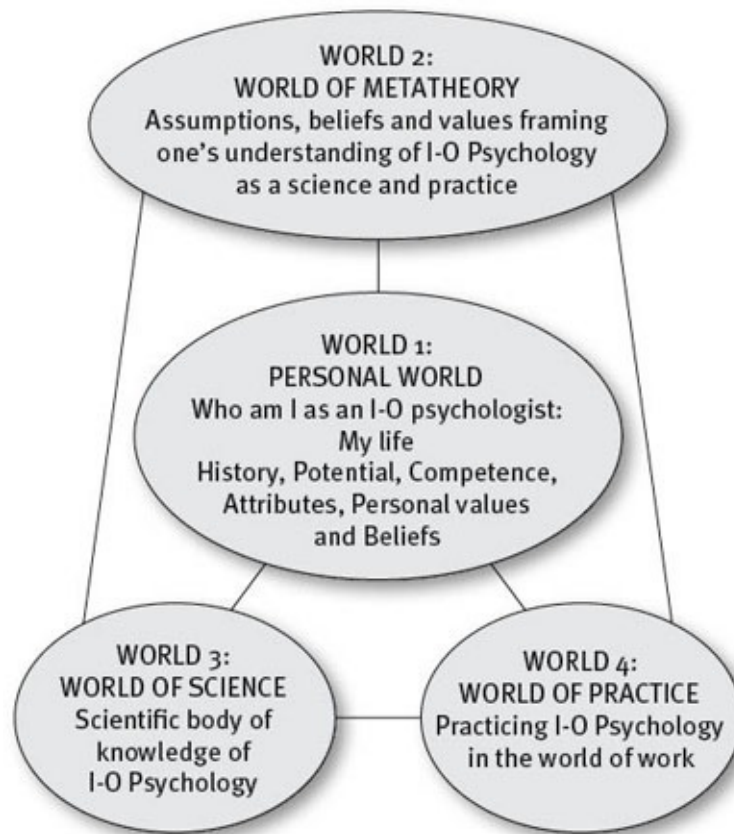
You need to understand the four worlds that make up I-O Psychology and to know which one of these worlds is appropriate to give you an overview or “helicopter” view of the science and practice of I-O Psychology. You will also have to grasp the critical importance of having this overview of the field.

### 2.2.1 The four worlds of I-O Psychology

The field of I-O Psychology can be presented to consist of four interdependent worlds as shown in Figure 2.1:

- *World 1: Personal world:* This world refers to current and aspiring I-O psychologists with their diverse make-up and profiles who, as a collective whole, form the community of practice of I-O Psychology. In other words, this world is made up of the persons who are involved in the field of I-O Psychology, including students.
- *World 2: World of metatheory:* This world encompasses the past/current/future metatheoretical convictions regarding I-O Psychology as a science and practice. The word “meta” means “a view over”. In other words, this world sits “above” World 3 (World of science ), and World 4 (World of practice) of I-O Psychology. It provides a helicopter view of these two worlds. World 2 thus serves as a vantage point, a “mountain top”, from which Worlds 3 and 4 can be viewed (see Figure 2.1). Therefore, metatheory can

also be entitled “the philosophy of I-O Psychology” because it addresses the principles that ground I-O Psychology as science and practice.



**Figure 2.1** The four interdependent worlds of I-O Psychology. Source: Adapted from Mouton (2011)

- These metatheoretical principles or convictions consist of assumptions, beliefs and values. An “*assumption*” (or premise) refers to a something that is taken for granted or is seen as self-evident, for example: “Progress at all costs is good”. A “*belief*” pertains to an accepted truth (even if it is wrong!) about something, for example: “Males make better leaders than women”. A “*value*” relates to the relative worth awarded to something in terms of importance, desirability and/or rightfulness, for example: “People must be treated with dignity and respect at all times”.
- The origins of the metatheoretical convictions can be found in how we were raised by our parents and family, where and at what time period we grew up, as well as our education and the teachers and lecturers we have been exposed to. The latter also can include theories, concepts, assumptions, research

findings and applications from various disciplines. These influence I-O Psychology and will include what we may have studied, are knowledgeable about or apply.

- *World 3: World of science:* This world entails the scientifically proven knowledge making up the field of I-O Psychology, and all the research activities undertaken to extend that knowledge. Throughout this book scientific knowledge regarding I-O Psychology is presented. How to conduct research is given in Part 6 of this book.
- *World 4: World of practice:* This world covers the everyday practice of I-O Psychology in the world of work to assist working persons and organisations with their leadership in enhancing, changing and transforming the world of work to make it a better place for all. Parts 5 and 6 of this book: Employee and organisational well-being and Psychological assessment and research are good examples of the practice of I-O Psychology.

This chapter deals primarily with the metatheoretical world of I-O Psychology (i.e. World 2). The balance of the book addresses the worlds of science and of practice of I-O Psychology (i.e. Worlds 3 and 4). For the sake of brevity, in the balance of this chapter, Worlds 1 to 4 will be referred to respectively as Personal, Metatheory, Science and Practice. Whenever reference is made in the discussions to these worlds specifically, these terms will start with a capital letter.

### **2.2.2. The importance of exploring and understanding I-O Psychology's metatheory**

As a “set of glasses” (or thinking frameworks), that allows you to see or not see things, the metatheoretical convictions ascribed to in the metatheory will frame (i.e. determine) how one will conceive, understand, address, research and deal with matters making up the science and practice of I-O Psychology.



**Figure 2.2** The metatheory of I-O Psychology allows one to have a “view over” I-O Psychology as science and practice.

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This framework allows you to take fundamental positions regarding vital issues in the science and practice of I-O Psychology, such as:

- How do you define I-O Psychology in order to establish the boundaries of the field?
- What is the nature of the human psyche that forms the basis of the science and practice of I-O Psychology?
- What is the nature of reality that I-O Psychology wishes to study in order to determine how to address that reality in science and practice?
- What is the nature and meaning of work that informs the way you think about good, decent work, and the selection of appropriate interventions to create productive and satisfying work?
- What is the basic make-up of I-O Psychology as a field that will provide you

with a way of organising I-O Psychology's body of knowledge?

The thinking framework allows you to see and deal with the science and practice of I-O Psychology by opening up potential perspectives within the field. Concurrently, however, your chosen set of glasses can restrict your view by creating blind spots about and/or by setting restrictions to your thinking and understanding of I-O Psychology.

For example, if you define I-O Psychology as the study of work behaviour (i.e. the observable actions of working people) then the “liberating” function of your thinking framework helps to know what the field entails. This definition declares simultaneously the study of the inner, subjective experiences of working persons – unobservable actions such as the unconscious, feelings, thoughts – out of bounds to study. This represents the “imprisoning” function of your thinking framework. Of course, if you can make the inner, subjective experiences of working “observable” through observations or a questionnaire. Then unobservable actions may become possible to study as long as you have defined I-O Psychology as the study of work behaviour that may include unobservable aspects too.

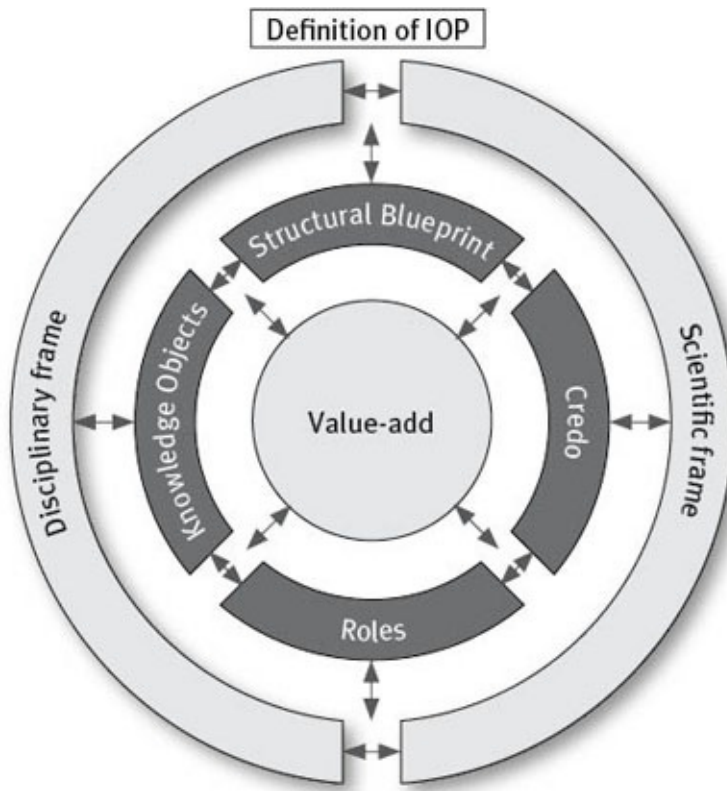
It is, therefore, important that you always consciously and deliberately scrutinise and examine what metatheoretical convictions you hold or that are recognised in the metatheory of I-O Psychology, and how this impacts the way that you engage with this field. If these convictions remain unexamined, then it may lead to using knowledge and practices in I-O Psychology in biased and less constructive ways.

What exactly are the building blocks that make up the metatheoretical landscape of I-O Psychology?

## **2.3 THE METATHEORY OF I-O PSYCHOLOGY**

Figure 2.3 provides a “map” of the metatheoretical landscape which depicts the make-up and structure of the metatheory of I-O Psychology. The building blocks making up the landscape are aspects which can be viewed as foundational or essential in I-O Psychology. The description of each building block (aspects which can be viewed as foundational or essential in I-O Psychology) is given in the subsequent sections of this chapter.

It is important to note in Figure 2.3 that:



**Figure 2.3** The metatheoretical landscape of I-O Psychology.

- Firstly, the *two way arrows between all of the building blocks* making up the landscape indicate that all of them are interconnected, and therefore influence each other. The landscape forms a systemic, holistic whole.
- Secondly, all of the building blocks are embedded in the *I-O Psychology context – ideological framework as the outer boundary* of I-O Psychology. This means that this building block impacts and determined all of the other building blocks inside this boundary.
- Thirdly, the *building block: Definition of I-O Psychology* provides the *inner boundary* of the field of I-O Psychology. This outlines the *boundaries and scope* of the field: what forms part of the field, and what falls outside the field.
- Fourthly, in turn the *building blocks: Disciplinary and scientific frameworks* frame the *five building blocks located in the centre of the landscape*, for example: I-O Psychology structural blueprint and the knowledge objects of I-O Psychology. This means that your view of science in general, such as the foundational concepts of I-O Psychology (for example, terms like “work” and

“psyche”) will be affected by your view of the building blocks in the centre of the landscape.

In the following sections of the chapter, each of the respective building blocks that make up the metatheoretical landscape will be discussed as follows:

- the *building block* (or foundational aspect) will be described
- the *currently available, dominant answers about the building block will be explained*. Only the most critical, distinguishing, and leading answers will be identified, and not subtle nuances or variations of these answers.

The discussion of the building blocks begins with the definition of I-O Psychology. It moves next to the disciplinary and scientific frameworks, and then addresses the building blocks located in the centre in [Figure 2.11](#). The discussion ends with the IP context – the ideological framework (see [Figure 2.12](#)).

## 2.4. THE METATHEORETICAL BUILDING BLOCKS OF I-O PSYCHOLOGY

### 2.4.1 The definition of I-O Psychology

The *definition of I-O Psychology* (see [Figure 2.3](#)) deals with the boundaries of I-O Psychology: what is the field all about. The *critical questions* that have to be answered with respect to this building block are:

- How does one define I-O Psychology as a field? In other words, what are the boundaries of I-O Psychology? Boundaries are important because they determine what is within and what is outside of the field.
- Given a definition, what is the appropriate name for the field of I-O Psychology?
- Given a definition of I-O Psychology, what is its relationship with other related key fields, such as philosophy, psychology, human resource management; (industrial) sociology, (industrial) anthropology and engineering?

#### 2.4.1.1 Defining I-O Psychology

Content analyses of more than a hundred definitions of I-O Psychology over its history spanning more than a hundred years showed that the following elements were most frequently included:

- a scientific study
- the application of psychological knowledge. For example, psychological concepts, principles, theories and methodologies
- human work
- behaviour
- industry/business/the organisation as work setting. (Aimer, Dzepina, Ebrahim, Nakani and Vorster, 2010; Opie, Simon, Swanepoel, Williamson and De Bod, 2011; Veldsman, 1984)

The above, most commonly used elements to delineate the field of I-O Psychology over its history signify that in terms of its *scope*, I-O Psychology:

- is both a science and a practice, therefore, the presence of Worlds 3 and 4 as depicted in [Figure 2.1](#)
- has a strong relationship with psychology
- focuses primarily on observable, human work behavior
- addresses the formalised sectors of work: industry, business and organisations.

Though not stated explicitly, it is implied that I-O Psychology as a field only deals with psychologically healthy, adult working persons, doing ethical, legal, and acceptable work. In practice today, however, there is a strong emphasis in the work place on employee and organisational health which include the management of employees and organisational problematic behaviour that may impair work and organisational performance (see [Part 5](#) in this book).

If strictly applied, this scope of I-O Psychology furthermore **excludes** amongst other things (which one of course can challenge):

- *any non-scientific knowledge*. But then, what about the practical wisdom gained in practice of I-O Psychology when dealing with the everyday working organisation and working people?
- *work by any other beings than humans*, such as other living beings like insects and animals. Of course, the question here is do they do work or is work unique to human beings? If other living beings do work, who studies their work?
- *non-observable behaviour*, such as the direct study of the inner experiences of working persons if these experiences cannot be made observable. But surely people do have inner conscious and unconscious experiences? (see, for example [Chapter 14](#) in this book).
- *children's education and development* to prepare them for the world of work.

But does their upbringing and education have a direct bearing on how they will act in the adult world of work?

- *severely psychologically ill persons*. But what if these illnesses are caused by the world of work? (see [Chapter 20](#) in this book).
- *work done outside the formalised sectors of work*. But then, what about work done by a full-time house wife, the hawker standing on the street corner, the painter or composer working on his/her own? Surely all work is not only done in the formal sector?
- *excluding unethical, illegal and/or criminal work* performed by white collar criminals, gangs and crime syndicates. But do they not also work although their work is unethical and illegal? Is this work not also worthy of study, though not ethically acceptable and unlawful?

As can be seen from previous discussion, the boundaries supplied by the definition of I-O Psychology play a critical role in determining the scope and the essential nature of the field. As was discussed above, a chosen definition for I-O Psychology will liberate one to “see” what the field of I-O Psychology is all about, but simultaneously will “imprison” one by blinding one not to see and/or consider other things because they are excluded from the field because of its definition. The chosen definition of I-O Psychology as used in this book is given in Chapter 1.

#### **2.4.1.2 Naming I-O Psychology**

The name given to a field of study should give a true reflection of what field it covers. The name may also need to change during its history as the content of its science and practice change. The name of the field takes on an added importance if the profession associated with the field is statutorily regulated like in the case of the registration of industrial psychologists with the Health Professions Councils of South Africa (HPCSA).

Different names have been given to the field of I-O Psychology throughout its existence, and/or in different parts in the world. The most common names are: industrial psychology (in its early history at the beginning of the previous century in countries such as the United States of America and in South Africa); I-O Psychology (towards the end of the previous century); occupational psychology (in Britain, for example); and work psychology (for example in Western Europe as seen in Rogelberg, 2007; Veldsman, 2001). The chosen name for the field used in this book is Industrial and Organisational Psychology.

The roots of the field at the beginning of the 20th century are to be found in the modern Industrial Age and Society where the physical factors of work (or production) were dominant. For example, raw materials like iron ore and land, machines and money. We now live in the knowledge age and society in which information, knowledge, creativity, and human competence and ingenuity are of greater importance. The critical question is what would be the appropriate name for the field of I-O Psychology, given its present context and content at this point in history?

#### **2.4.1.3 The relationship of I-O Psychology with other fields**

All fields of study, also I-O Psychology, are related to one another to a greater or lesser extent which results in various degrees of interdependency amongst fields of study. We need to have a clear understanding about the nature of these relationships.

At least five types of interdependency relationship can be distinguished between fields of study:

- *Framing* relationship: One field provides the framework (set of glasses) with which to view other fields of study. In metatheory, the field of philosophy provides the disciplinary, scientific and ideological frameworks through which I-O Psychology views the reality of working people and work organisations.
- *Foundational* relationship: An example can be seen in the foundation of a house – one field provides the basis on which the knowledge of the other field is built. The field of psychology, with all of its sub-fields, has such a relationship with I-O Psychology.
- *Applications* relationship: One field utilises the knowledge of another field, but from a different context. In this book I-O Psychology is seen to apply psychological knowledge to the world of work (Matatazzo, 1987; Rogelberg, 2007; Strümpher, 2007).
- *Complementary* relationship: The two interdependent fields interact closely. The knowledge gained in the one field, directly extends and deepens the knowledge of the other field, and vice versa. The fields of I-O Psychology and human resource management (HRM) (increasingly referred to as people management) have such a relationship. As one gains a greater understanding of the psychology of working people and work organisations in I-O Psychology, the management of people and organisations (HRM), can be enhanced. In the same manner, managing working people and work

organisations may require I-O Psychology to find answers to unanswered questions about the psychology of working people and work organisations (Veldsman, 2007a).

- *Enriching* relationship: The knowledge from certain fields can enrich, deepen and extend insight into a given field:
  - sociology – the study of people in society
  - anthropology – the cultural differences within humankind, between societies and across history
  - economics – human work forms an essential part of the history and the ways that economic systems function
  - business/public management – how to set up and lead/manage private and public organisations
  - engineering – the design and management of the means of production, *e.g.* computer, machinery, chemical processes.

These are all relevant to I-O Psychology and can extend, strengthen and enrich how we understand working people and work organisations.

In summary, the definition of I-O Psychology therefore addresses the boundaries of the field: how it should be named, and its relationship with other fields of study.

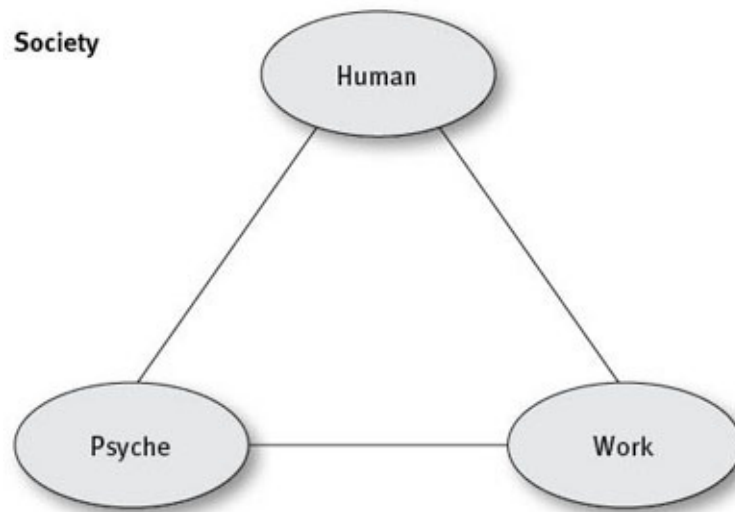
## 2.4.2 The disciplinary framework of I-O Psychology

There are a limited number of basic concepts that form the foundations of every field of study. The *disciplinary framework of I-O Psychology* (see [Figure 2.3](#)) relates to the metatheoretical convictions that are used as a foundation for the field of I-O Psychology. As previously discussed, I-O Psychology is the study of work from a psychological perspective where work is performed by human beings who are members of a society. The *critical questions* that have to be answered for this building block are as follows:

- What is your view of *human work*?
- What is your view of the *human psyche*?
- How do you view being *human*?
- How do you view the people in society of which working people form part?

Figure 2.4 depicts the interrelationship between these four interdependent, foundational concepts of I-O Psychology. The way you view society will influence how you see the other three concepts. In turn, the human being, the human psyche and work form an undivided whole: I-O Psychology studies the

human psyche in relation to human work.



**Figure 2.4** The interrelationship between the foundational concepts of I-O Psychology.

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**Figure 2.5** People at work.

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Work stands centrally in the field of I-O Psychology. At least four *dominant disciplinary frameworks for human work* can be distinguished for this foundational concept of I-O Psychology as given in Table 2.1.

As the reader you can of course question yourself about which one of the Human Work Stances as given in Table 2.1 you ascribe to. Generally speaking, this book subscribes to the stance of work as self-fulfilment.

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**Table 2.1** Dominant human work frames with their application to the science and practice of I-O Psychology

DISCIPLINARY FRAMEWORK: HUMAN WORK STANCES	APPLICATION TO THE SCIENCE AND PRACTICE OF I-O PSYCHOLOGY <i>Work is .....</i>
Work as a curse/drudgery	a compulsory duty/obligation (self-)imposed on the individual to secure the necessary means to ensure her/his survival/existence.
Work as self-fulfillment	an activity based on individual choice undertaken for the pleasure it provides, which enables an individual to self-actualise him-/herself over time.
Work as service	an activity based on individual choice undertaken for the pleasure it provides, which enables the individual to be of service to others and her/his community. The individual is either entitled to/guaranteed work or must find/create her/his own work.
Work as exploitation	performed by working persons as a collectivity – the working class – and is merely a production factor, similar to raw materials and technology. He/she is ruthlessly exploited by the owners of the production factors – the capitalists – to enrich themselves at the expense of the working class who merely survives/exists on a starving wage.
References	Beck, 2000; Blyton and Jenkins, 2007; Cappelli, 1999; Caudron, 1997; Cuilla, 2000; Donkin, 2001; Neff, 1977; Tosi, 2009

Due to the fact that I-O Psychology is about the psychology of human work, it needs to have a view of what the human psyche is all about. At least ten *dominant disciplinary frameworks for the human psyche* can be distinguished for this foundational concept of I-O Psychology, the so-called schools of thought in psychology, as given in Table 2.2. As you examine the table, consider what your preferred human psyche stance would be.

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**Table 2.2** Dominant human psyche stances with their applications to I-O Psychology as science and

practice

DISCIPLINARY FRAMEWORK: HUMAN PSYCHE STANCES (given in approximate historical order)	APPLICATION TO THE SCIENCE AND PRACTICE OF I-O PSYCHOLOGY  <i>The human psyche is about .....</i>
Structuralism (e.g., W. Wundt, E.B. Titchener, G. Fechner)	Studying the different elements making up the normal, conscious experiences of humans, such as sensation, attention, perceptions, thoughts, feelings, and how they combine and develop into mental processes. The primary method of studying the human psyche is introspection: people self-report their inner experiences of stimuli presented to them.
Functionalism (e.g., W. James, F. Galton)	Studying how the normal, conscious functions of the mind work and evolve into behavior, assisting a person to adapt to his/her environment. The primary method of studying the human psyche is the observation of behaviour and measurement of individual differences, currently emphasised in the assessment of human traits and types.
Psychoanalysis (S. Freud), Neo-Freudians (e.g., K. Horney, O. Rank) Analytical (e.g. C. Jung)	<p>Classical psychoanalysis (Freud): studying the dynamic, instinctual forces of the unconsciousness, especially the sexual and aggressive instincts of humans – expressed in wishes, desires and fantasies – and the pathologies that emerge as a person early in her/his childhood life attempts to find ways in her/his everyday living to make these anti-social instincts socially acceptable. The primary methods of studying the human psyche are dream analysis and free association – “talking therapy” – through which the individual verbalises the associations certain stimuli like words and images invoke. Both methods aim to uncover the unconscious psychodynamics of an individual.</p> <p>Analytical psychology (Jung) as a reaction to classical psychoanalysis: studying the normal/abnormal forces of the evolving, collective unconsciousness with its inherited predispositions and symbols, the personal unconscious as well as the conscious as a person matures over his/her life time in his/her search for meaning and purpose towards a unified, personal whole in the form of an unique, authentic, spiritual Self. In the journey towards integration a person has to unite psychological opposites: introversion vs extraversion, sensation vs intuition; and thinking vs feeling. The combinations of these psychological opposites result in different psychological types. The primary methods of studying the human psyche is dream analysis, active imagination and the interpretation of the symbols used by humankind embedded in the collective unconsciousness. One of the most popular psychological assessment techniques, the Myers-Briggs, is based on Jung’s thinking (see <a href="#">Chapter 14</a>).</p>
Humanism (e.g. A.H. Maslow, C. Rogers, R. May, V. Frankl), Phenomenology (e.g., E. Husserl, F. Brentano) and Positive Psychology (e.g., W.E.P. Seligman, A. Antonovsky, D.J.W. Strumpfer)	<p>Humanism: studying how normal persons subjectively and positively experience the world and others in their quest to actualise her/his potential in order to live a life that is personally meaningful and satisfying. The primary method of studying the human psyche is understanding the positive inner personal, life experiences of individuals.</p> <p>Positive psychology: studying the wellness, well-being and resilience of normal persons as they take the initiative to go about their everyday lives in a positive way. The primary method of studying the human psyche is the same as for Humanism.</p>
Gestalt (=Configuration) (M. Wertheimer; W. Köhler,	studying the normal consciousness of a person as an interconnected, dynamic whole which configures (or organizes) the different elements of her/his psychological experiences – the parts – affected by and embedded in a certain

K. Kaffka, K. Lewin, G. Katona)	psychological experiences – the parts – directed by and embedded in a certain context into coherent patterns – the whole – to provide meaningful understanding to the person. The primary method of studying the human psyche is experimental studies to demonstrate how the whole of the psyche is more than the sum of its parts.
Behaviourism (e.g., J.B. Watson, B.F. Skinner, E.C. Tolman, H. Clark, E. Guthrie,)	studying overt, observable, normal behavior as the programmed responses to stimuli out of the environment, and how these stimulus-response links through learning are formed and reinforced, can be changed, and be made predictable. The primary method of studying the human psyche is laboratory experiments to determine how to program stimulus-response links.
Dialogical/Ubuntu/Afrocentric (e.g., W. Jordaan, Mbigi, 1997; Mbigi and Maree, 1995)	studying how the normal person, embedded in a community, becomes a whole person through and with other persons through the internalisation of cultural and spiritual values. The primary method of studying the human psyche is to understand and interpret the interactions – linguistic, symbolic, value-informed and physical – between people.
Cognitivism (e.g., A. Bandura, G. Kelly, S.J. Read, L.C. Miller, J. Rotter, M. Toda, U. Neisser)	studying the normal mind in its totality as a constructing and problem-solving mechanism, for example, like a complex computer, in terms of the psychological and neurological processes related to information input, storage, processing, organisation and output in the mind. The primary method of studying the human psyche is to conduct controlled experiments to analyse and map neurological/brain activities.
Biological-evolutionary (e.g., F. Galton, D.M. Buss, J. Crabbe, Eysenck, J. Gray, D.T. Kenrick, R. Plomin, J.A. Simpson)	studying the human psyche as the historical evolution of humans' physiological make-up and dynamics – e.g. genes, DNA, hormone and nerve systems – with their associated psychological manifestations such as sexual attraction, parenting, violence – as individuals evolve and adapt to their environment. The primary method of studying the human psyche is to experimentally study changes in various forms of physiological and psychological behaviour amongst different groups across time.
References	Bergh and Theron, 2009; Bergh, 2011; Burger, 2008; Friedman and Schustack, 2006; Kazdin, 2000; Pervon and Cervone, 2010; Watkins, 2001

You will find most of the above human psyche stances, or the schools of thought in psychology, as given in Table 2.2 used as interpretative framework throughout this book in different chapters.

If I-O Psychology is about the psychology of human work, then the field also will ascribe to a stance relating to the concept of the *human being*. At least three disciplinary frameworks can be identified for this foundational concept of I-O Psychology as seen in Table 2.3.

**Table 2.3** Dominant human being stances with their applications to I-O Psychology as science and practice

DISCIPLINARY FRAMEWORK: HUMAN BEING STANCES	APPLICATION TO THE SCIENCE AND PRACTICE OF I-O PSYCHOLOGY
	<i>The human being is .....</i>

Human as animal/biological being	at most a biological/physiological being, equal to all other forms of life, with a given make-up which evolve over time, with no freedom of choice.
Humanistic – human as a higher order, uni-dimensional being: Predominantly a human is a rational OR emotional OR social OR ethical OR spiritual being	being the highest form of life; each human being is unique; inherently good OR inherently a mixture of good and bad; has the freedom to choose; is made up of a <i>single</i> , evolving dominant facet which makes the human exclusively human, e.g. being predominantly rational or ethical.
Humanistic – human as a higher order, complex being	being the highest form of life; each human being is unique; inherently good OR inherently a mixture of good and bad; has the freedom to choose; and is made up of multiple, <i>equally important</i> facets – e.g. physical, physiological, biological, psycho-social, ethical, spiritual, religious facets – which codevelop, holistically over time.
References	Goetz and Taliaferro, 2011; Meyer, Moore and Viljoen, 2003; Pratt, 1978; Sheldon, 2004; Wall, 2005; Veldsman, 2012

In this book it is accepted that the human being is a higher order, complex being made up of multiple facets which are equally important. What is your preferred stance regarding us as human beings?

As was stated above, human work, the human psyche and human beings form part of society. I-O Psychology as a field will have a stance on society, and what it is about. This stance will fundamentally influence the stances ascribed to in the field relating to human work and human beings at work. At least five *dominant societal stances* can be distinguished for this foundational concept of I-O Psychology, given in Table 2.4. Again, going through Table 2.4, you as the reader can consider and reflect on your own societal stance.

**Table 2.4** Dominant societal stances with their applications to I-O Psychology as science and practice

DISCIPLINARY FRAMEWORK: SOCIETAL STANCES	APPLICATION TO THE SCIENCE AND PRACTICE OF I-O PSYCHOLOGY <i>In this society</i> .....
A cooperative, individualistic society	the working individual with her/his rights/obligations is primary. Individuals work cooperatively together in the pursuit of each one's happiness. The principle is: Treat others as you would like to be treated.
A competitive, individualistic society (or social Darwinism: survival of the fittest)	the working individual with her/his rights/obligations is also primary. Individuals, however, compete directly against each other in the pursuit of one's own happiness. It is a dog-eat-dog society: when I win, you lose.
A cooperative, community based society (e.g., an open society)	the community with its rights/obligations (and not the individual), like an organisation, is primary. Organisations strive to work harmoniously together internally with equal opportunities for all. Externally the organisation strives to

open society)	internally with equal opportunities for all. Externally the organisation strive to cooperated with other organisations in pursuit of the common good of all.
A competitive, community based society	the organisation with its rights/obligations are also primary. In pursuit of its self-interests, one organisation mobilises and competes for scarce resources directly with other organisations to the latter's detriment. Only the fittest survive. It is a rat race.
A class based society (e.g., Feudalism)	is divided into strict socio-economic classes to which individuals belong and are locked into by birth, e.g., the aristocracy and common people, or owners and workers. Movement between classes is impossible. Usually one class prescribes to and rules over the other class(es). These classes may or may not be in conflict.
References	Baert, Koniordos, Procacci and Ruzza, 2010; Burrell and Morgan, 2009; Pratt, 1978

The societal stance adopted in this book is somewhere between a cooperative and competitive, individualistic society. So, what is your societal stance?

**In summary**, it should be clear from the aforementioned stances on the concepts of I-O Psychology – human work, human psyche, human being and society – that vastly different disciplinary frameworks can be adopted, and this has significant impact on how we engage with I-O Psychology as science and practice.

### 2.4.3 The scientific framework of I-O Psychology

Every field of study studies reality – what is and can be – and have certain metatheoretical convictions regarding reality in general. For example:

- Does reality exist independently from us or is it created subjectively by us?
- Is the source(s) of knowledge our senses or/and our mind?
- What are the criteria for true knowledge: empirically verified facts or logical reasoning?

The science and practice of I-O Psychology generates knowledge about a demarcated reality, namely that of working people and work organisations. Therefore, it is important that I-O Psychology has clarity about the scientific framework it will use to generate knowledge about the reality it wishes to study in its science and practice.

The *scientific framework of I-O Psychology* (see Figure 2.6) thus deals with the nature, make-up, dynamics and evolution of reality (or the world) in general.

The *critical questions* that have to be answered with respect to this building block are:

- What is your theory of the nature of reality and of our existence or being in the world (i.e. ontology)?

- What is your theory of gaining knowledge about reality and what would be considered as true knowledge (i.e. epistemology)?
- What is your theory of the role and contributions of the knower in gaining true knowledge about reality (i.e. anthropology)?

These three questions that relate to the scientific framework of I-O Psychology form an interdependent whole as depicted in Figure 2.6. In other words, the way you answer one question, will influences your answers to the other two.



**Figure 2.6** The facets of one's scientific framework in engaging with reality.

At least seven *dominant scientific lenses* (sometimes called scientific schools of thought) can be taken as given in Table 2.5. In working through the different scientific stances in Table 2.5, consider what would your preferred scientific framework be.

**Table 2.5** Dominant scientific frameworks with their applications to I-O Psychology as science and practice

SCIENTIFIC FRAMEWORK	APPLICATION TO THE SCIENCE AND PRACTICE OF I-O PSYCHOLOGY
-------------------------	-----------------------------------------------------------

FRAMEWORK STANCES	ONTOLOGICAL STANCES	EPISTEMOLOGICAL STANCES	ANTROPOLOGICAL STANCES
	The nature of reality	Gaining knowledge about reality	My role as knower
<p>Empiricism (including logical positivism or realism) (e.g. I. Newton, J. Locke, D. Hume, A. Comte, E. Durkheim, M. Schlick, R. Carnap, E. Nagel)</p>	<p>Reality works like a machine. It is made up of independent parts which fit together like the gears of a machine. Reality works in terms of fixed rules.</p>	<p>Knowledge is sourced solely through our senses: what we see, hear, taste and touch. Knowledge is acquired through observation and controlled experiments. True knowledge gives a quantitative description of reality in the form of empirical facts, mathematical equations, and laws, allowing us to make predictions about reality.</p>	<p>The knower is merely like a passive digital camera recording truthfully the sensory images he/she receives. At most, he/she decides on what pictures to take with what focus, and in the ways in which to organise the photos.</p>
<p>Idealism (e.g. I. Kant, G.W.F. Hegel, A. Schopenhauer, G. Liebniz)</p>	<p>Reality is contained in our mind in the form of innate ideas which we must discover and logically evaluate and organise.</p>	<p>Knowledge is the outcome of rational and logical thinking, using the ideas and thoughts already resident in our mind. True knowledge, resident in our minds, entails what is desirable in the form of general laws regulating reality.</p>	<p>The knower has all the knowledge in her/his mind in the form of inborn ideas which she/he must discover, extract and systemise through logical reasoning.</p>
<p>Rationalism (also critical rationalism) (e.g., R. Descartes, G. Liebniz, B. Spinoza, K. Popper)</p>	<p>Reality exists independently of ourselves. We experience this reality through our senses, but we must use our mind with its innate ideas to analyse and understand this reality.</p>	<p>Knowledge is sourced from both of our senses and our mind/intuition. Knowledge is acquired through the combination of observation, experiments and logical reasoning. True knowledge is expressed quantitatively in the form of general laws which describe and make predictions about reality.</p>	<p>The thinking knower uses his/her thinking to construct and use his/her digital camera to take pictures, and then apply his/her thinking to analyse and interpret the taken photos with the ideas in his/her mind.</p>
<p>Cybernetic (or systems) (e.g., G. Bateson, L. von Bertalanffy, K. E. Boulding, F. Emery, D. Katz, R. Kahn)</p>	<p>Reality consists of various systems like organisations (or a biological system such as our body) which take inputs from its environment (like raw materials, people and technology), and convert them into products /services – the throughput – which customers buy, the money which in turn</p>	<p>Knowledge is acquired through observation and controlled experiments about inputs-throughput-output-feedback relationships. True knowledge gives a quantitative description of reality in the form of empirical facts and laws about the dynamics of systems, allowing us to make predictions about</p>	<p>The thinking knower uses her/his thinking to construct and use her/his digital camera to take pictures of systems, and then apply her/his thinking to analyse the photos taken with the ideas she/he has in his/her mind.</p>

	finances for the next round of inputs.	system dynamics.	
Symbolic interpretive (e.g., G.H. Mead, C.S. Pierce, P. Berger, T. Luckmann, K.E. Weick)	Reality is co-created through the interactions – in the form of language and conversations – amongst a set of persons, and in society. Through their interactions they award shared meaning and purpose to the reality which they express in language and symbols.	Knowledge is obtained through socially agreed upon, interpretations of reality by a group of interacting individuals who give meaning to reality. Knowledge is the result of intense debate and dialogue. True knowledge is shared, agreed upon meanings regarding reality which indicate what is and/or what should be in the form of language and symbols.	The knower as part of a set of interacting persons actively immerses himself/herself in real live situations with others who seek to understand and interpret what is happening, and why. He/she expresses his/her understanding in the form of language and symbols which are debated and shared by everyone in the interacting group.
Chaos (or complexity) (e.g., E. Loernz, M.J. Feigenbaum, A.J. Libchaber, J. Gleick, R.D. Stacey, C.F. Kurtz, D.J. Snowden, M. Wheatley)	Reality consists of a holistic set of reciprocally influencing and interdependent variables (like people, culture, design, leadership), that continuously go through unpredictable states of order and chaos as an interacting whole.	Knowledge is obtained through our thinking about reality in which we endeavour to make sense of the chaos we observe in reality in order to discover and conceptualise the patterns, with their associated relationships and underlying rules, in terms of which reality functions.	The knower actively engages with reality in order to make sense of reality in the form of relationships, rules and patterns, and then acts in accordance with the uncovered patterns of which she/he forms part.
Relativistic (or postmodern) (e.g., F. Nietzsche, P. Feyerabend, G. Lakoff, J. Margolis, M. Foucault, J. Derrida)	Everyone has its own understanding of what reality is, which carries equal weight. There is no single, shared understanding of what reality is.	Everyone has her/his own unique understanding of reality. Knowledge is acquired by an individual through whatever means he/she sees fit. Therefore multiple truths exist. No single, general truth exists.	Each individual knower is the sole and ultimate source and owner of his/her exclusive knowledge. No-one can challenge his/her knowledge. Often, however, those in power would impose on the powerless their understanding of reality to which the powerless must subscribe.
Mystic (e.g., Buddhism, Christianity, Hinduism, Muslimism)	Reality is presented in the sacred text(s) (e.g. Bible, Koran, Vedas) which has a divine source, and have been conveyed to us by a prophet(s) and/or holy persons acting on behalf of the divine being.	True knowledge is comes from our beliefs which are based on our faith in a higher being who has revealed him/her to us. Knowledge is acquired through meditation, the studying of sacred texts and being taught by teachers of that faith. Our beliefs prescribe what “should be”, the	The knower is a believer who accepts things in faith with the light he/she receives.

	normative.	
References	Augustyn and Cillie, 2008; Baum, 2002; Buchanan and Bryman, 2009; Craig, 1998; Denzin and Lincoln, 2005; Drack, 2009; Dubtovsky, 2004; Fitzgerald, 2001; Kurtz and Snowden, 2003; McWhinney, 1989; Pietersen, 1989; 2005; Stacey, Griffin and Shaw, 2000; Tsoukas and Knudsen, 2005; Veldsman, 2002; Wheatley, 1992; Westwood and Clegg, 2003	

In summary, the scientific framework of I-O Psychology addresses your metatheoretical convictions regarding the nature of reality in general, how true knowledge can be gained about reality, and the role and contribution of the knower. As could be seen from the previous discussion, a variety of scientific frameworks exist that impact how we would view I-O Psychology as a science and practice.

#### 2.4.4 The knowledge objects of I-O Psychology

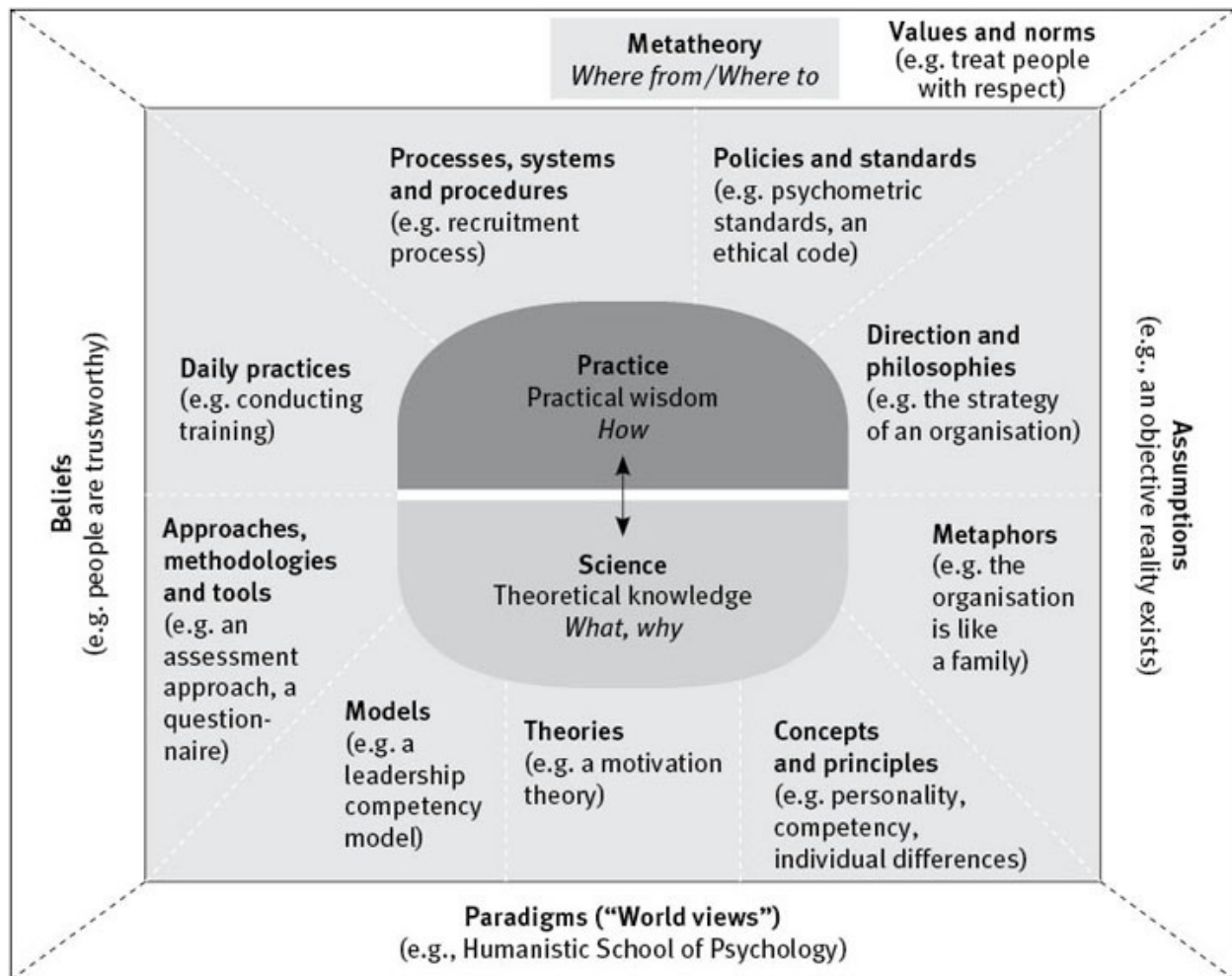
The knowledge in any field of study comes “packaged” in the form of knowledge objects, like “concepts”, “theories” and “models”. The *knowledge objects of I-O Psychology* entails the set of knowledge objects which is seen as legitimate in the field of I-O Psychology. The *critical questions* that have to be answered regarding this building block are:

- What set of I-O Psychology knowledge objects exist?
- How are they interrelated?
- What are their respective quality criteria?

Figure 2.7 depicts the possible set of I-O Psychology knowledge objects as related to the science and practice of I-O Psychology. Each knowledge objects is given in bold with example(s) of each in brackets after the knowledge object. As an I-O psychologist, you can either produce a knowledge object (you could, for example, build a theory) or use a knowledge object (such as someone who uses a psychometric test or facilitates a training programme). The specific placement of the knowledge objects in Figure 2.7 reflects their reciprocal relationship and interdependency.

As can be seen from Figure 2.7 the knowledge of the metatheory, science and practice of I-O Psychology comes packaged in a vast array of interdependent knowledge objects. Each knowledge object comes with a set of quality criteria: when is a knowledge object a good or poor object? In other words, you need to be able to assess when a knowledge object such as a model is acceptable or not. These criteria will not be further explicated here but may be discussed in this

book where appropriate.



**Figure 2.7** I-O Psychology's set of knowledge objects.  
Based on: APA, 2007; Mouton and Marais, 1996; Veldsman, 2005

## 2.4.5 The I-O Psychology structural blueprint

Each field of study requires a structural blueprint. The structural blueprint provides a “map” of the field of I-O Psychology by indicating what components make up the content of the field. The content can be depicted metaphorically as its “towns” – and how they are interrelated by the “road networks” between “towns”. Put differently, the structural blueprint provides the “skeleton” of a field of study. The knowledge objects as discussed above make up the “flesh” of the field of study that populate the structural blueprint as skeleton.

The *I-O Psychology structural blueprint* (see Figure 2.8) thus entails the basic components (or elements) making up the field of I-O Psychology, their interrelationships and how they are organised. The *critical question* that has to be answered regarding this building block is: How do we organise (or structure) the content of I-O Psychology at a macro level into a coherent map?

Two approaches can be taken in answering this metatheoretical question:

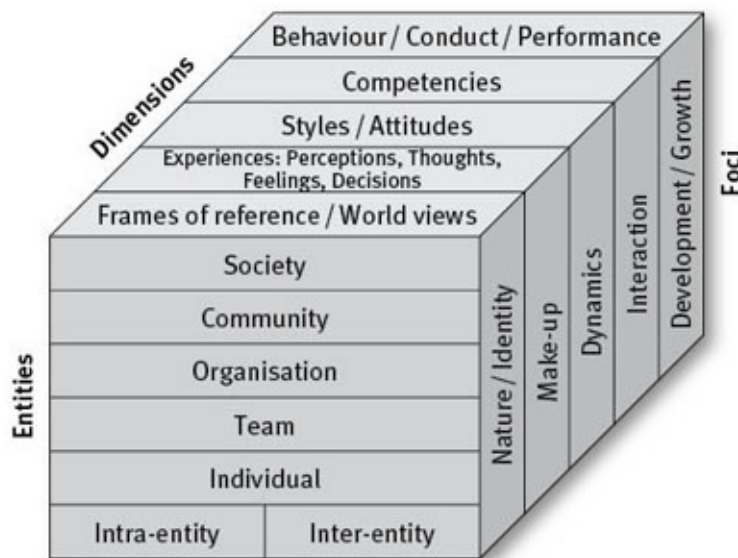
- *Approach 1: I-O Psychology sub-fields* – organise I-O Psychology into sub-fields, the “suburbs” of the field, like personnel psychology, consumer psychology with their associated components (see [Chapter 1](#) in this book).
- *Approach 2: Structural blueprint* –organise I-O Psychology’s components into a meta-conceptual framework, a “map” of the “country” called I-O Psychology with its “towns” and interlinking “roads”. In this book, the towns we will deal with are, for example, learning (see [Chapter 5](#)) which is linked in Chapter 15 to personality and motivation which is linked to most chapters on personality (Chapters 13 to 18).



**Figure 2.8** The I-O Psychology structural blueprint as a map of the field of I-O Psychology showing its “towns” with the “road networks” between them.

The two above approaches can be combined as they have been in this book. In Chapter 1 the sub-fields and practice areas of I-O Psychology are discussed. The balance of the book deals with various components (“towns”) of the field of psychology and I-O Psychology within an implicit structural blueprint which moves from the individual, through the team/group to the organisation.

Figure 2.9 depicts an example of a possible I-O Psychology structural blueprint in the form of a cube, consisting of three interdependent sides, namely entities, dimensions and foci.



**Figure 2.9** An example of a possible I-O Psychology structural blueprint.  
Based on: Anderson, Ones, Sinangil and Viswesvaran, 2001; Bergh and Theron, 2009; Bergh, 2011; Borman, Ilgen and Klimoski, 2003, Cascio and Aguinis, 2008; Dubin, 1976; Drenth, Thierry and De Wolff, 1998; Dunnette, 1976; Koppes, Thayser, Vinchur, and Salas, 2007; Landy and Conte, 2004; Schreuder, 2001; Veldsman, 2005

According to Figure 2.9 the field of I-O Psychology can be organised in the following ways:

- **Entities:** The various entities that make up the world of work: individual, team, organisation, community and society. You could look at each entity on its own (intra-entity) and/or in its relationship to other entities (inter-entity). For example, you could study the team by itself or in its relation with the individuals who make up the team and where the team fits into the larger organisation.
- **Dimensions:** The types of facets making up an entity. For example, the framework of reference, experiences through to the behaviour/conduct /performance of individuals.
- **Foci:** the focus used when looking at a dimension (or facets) of an entity: (i) the nature/identity of that dimension of the entity – what is the nature of personality; (ii) the specific elements making up that dimension of an entity – what elements make up personality; (iii) the dynamics of those elements – how do these elements of personality interact amongst one another; (iv) how do they interact with other entities – how does personality interact with the behaviour styles persons adopt and (v) how does the dimension of this entity

develop /grow over time – how does personality evolve over time?

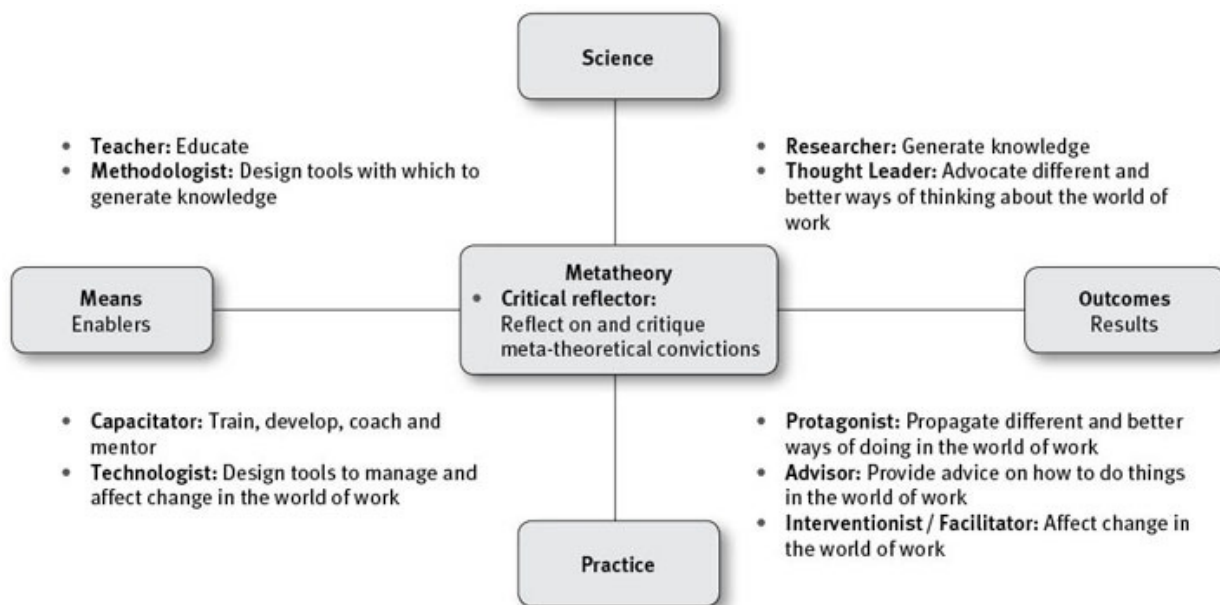
A structural blueprint is necessary to organise the content of I-O Psychology as science and practice. Otherwise, the content of the field will be chaotic and will not make any coherent sense. The challenge to you as reader is to be aware at all times where you are located in the country called I-O Psychology: which town, and its links with the other towns in this country.

## 2.4.6 The I-O Psychology roles

The field of I-O Psychology is about doing things and getting things done. This implies that the I-O psychologist fulfils certain roles like a player in a sports team. The *I-O Psychology roles* (see Figure 2.10) refer to the range of roles that can be fulfilled by the I-O psychologist in metatheory, science and practice. The *critical questions* that have to be answered regarding this building block are:

- What list of roles can the I-O psychologist play?
- What are considered to be successful criteria for each of these respective roles?
- What are the core competencies associated with each of these roles?

Figure 2.10 depicts the typical repertoire of I-O psychologist roles. The roles are split between the roles related to metatheory, science and practice, and those roles related to means or outcomes.



**Figure 2.10** The I-O psychologist's repertoire of roles.

Sources: Barnard and Fourie, 2007a; 2007b; Pienaar and Roodt, 2001; Rothmann and

Throughout this book, direct and indirect examples can be found of these various roles, the contributions they make, their associated core competencies and critical success factors. Of course, one I-O psychologist would not be a specialist in all of these roles simultaneously, but may adopt one or a couple of roles at one point in time, or change roles over her/his career. What is important, however, that there is consensus in the field of I-O Psychology what the legitimate roles are that the I-O psychologist can fulfill.

Which I-O Psychology role(s) are you attracted to and interested in?

### 2.4.7 The I-O Psychology credo

As has been indicated in several instances above that I-O Psychology deals with working people and work organisations. The *I-O Psychology credo* encompasses the set of fundamental beliefs about and rights that people have in the world of work.

The *critical question* that has to be answered for this building block is: what are the undeniable rights that working people have that need to be upheld by I-O psychologists when they deal with organisations, leaders *managers, individuals, clients and fellow I-O psychologists*? Often these beliefs/rights inform, and are protected and stated in bills of rights and labour legislation. Organisations also express their beliefs in the form of core values that are displayed throughout their offices.

Table 2.6 provides an example of some beliefs/rights that could be included in a work manifesto (or charter) for I-O Psychology. A work manifesto expresses one's aspirations about a desired world of work: "What ought to be". The commitments given in Table 2.6 have significant implications for the science and practice of I-O Psychology when thinking about and dealing with the world of work and working persons.

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**Table 2.6** An example of a world of work manifesto (or charter) and its application to I-O Psychology as science and practice

A WORLD OF WORK MANIFESTO (or charter)	APPLICATION TO THE SCIENCE AND PRACTICE OF I-O PSYCHOLOGY
With respect to working persons and the world of work we believe	Some of the implications of these beliefs

<p>with respect to working persons and the world of work we believe and value the following:</p> <ul style="list-style-type: none"> <li>• regard each person as unique in his/her make-up, beliefs, needs and aspirations</li> <li>• treat every person under all circumstances with equal respect and dignity</li> <li>• accept people as responsible, trustworthy adults</li> <li>• deal with everyone in a fair, transparent, truthful and equitable manner</li> <li>• treat others as we wish to be treated</li> <li>• create ongoing development opportunities for people to realise their full potential</li> <li>• empower and enable people to make contributions commensurate with their knowledge, expertise, skills and experience</li> <li>• to allow everyone the opportunity to pursue his/her own interests equally without detriment to any other person(s) and to mutual benefit</li> <li>• give due recognition for effort and performance, and recognise /reward people equitably and fairly</li> <li>• keep people at all times fully informed, actively listen to them, and involve them in, and allow them to influence decisions that affect them</li> <li>• create a work setting in which persons can act morally, truthfully and with integrity within a climate of trust</li> <li>• provide safe, healthy, secure and attractive work setting to ensure personal and collective well being</li> <li>• create an enriching work experience which give people a sense of meaningful and satisfying accomplishment, of personal growth and learning, of worth, as well as of belonging and community</li> </ul>	<p>Some of the implications of these beliefs and values for working persons and the world of work are:</p> <ul style="list-style-type: none"> <li>• the design of challenging, meaningful and decent work</li> <li>• ongoing, intense training and development of all persons across her/his career</li> <li>• empowering people to use their knowledge, skills and experience to the fullest extent</li> <li>• allowing high job autonomy: a high degree of independent decision-making in one's work</li> <li>• teaming and team work</li> <li>• work that is fairly and equitably rewarded</li> <li>• an information rich organisation which equal access by all to all information</li> <li>• participative decision-making</li> <li>• shared leadership</li> <li>• a diversity friendly organisation which builds on the strengths of everyone</li> <li>• an ethical organisation which is directed and guided in all its decisions and actions by a set of ethical principles which are shared by all</li> </ul>
References:	King, 2009; Veldsman, 2007b

Whilst working through this book, you would notice some of the beliefs/rights listed in Table 2.6, and their applications. To which of these beliefs/rights do you ascribe?

### **Extracts from two of Nelson Mandela's speeches which clearly illustrates his credo about South Africa as a society**

At the Rivonia Treason Trail on 20 April 1964 where he, with other ANC leaders, were sentenced to 25 years in jail on Robben Island: "We .....have always stood for a non-racial democracy, and we shrank away from any actions which might drive the races further apart than they already were."

At a concert organised by the Irish anti-apartheid movement,

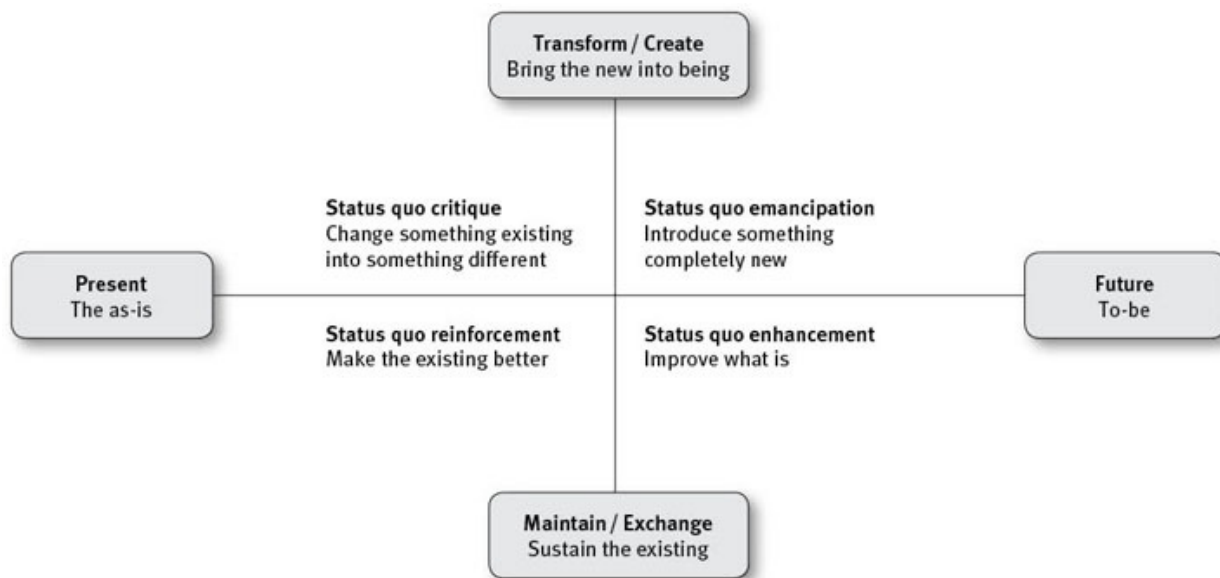
Dublin, Ireland on 1 July 1990: “Bound together by their common destiny, there will be neither white nor black, but just South African, free and proud. Proud to be members of the human family.”

### 2.4.8 The value-add of I-O Psychology

Any field of study must make a difference (add value). *The value-add of I-O Psychology* (see Figure 2.11) deals with the difference that I-O Psychology intends to make and aspires to make using I-O Psychology as a practice and a science. The *critical question* that has to be answered for this building block is: What is I-O Psychology’s ultimate value-add as a science and practice?

Figure 2.11 provides an overview of the possible value-adds of I-O Psychology. The value-add of I-O Psychology can relate to the present or/and future, and be aimed at the existing and/or the new.

According to Figure 2.11 I-O Psychology potentially can make four value-adds.



**Figure 2.11** The possible value-adds of I-O Psychology.  
Based on: Alvesson and Deetz, 1996; Anderson, Herriot and Hodgkinson, 2001; Augustyn, and Cillie, 2008; Barnard and Fourie 2007a; 2007b; Edgar 2006; Hoffman, 2004; Lawler et al., 1985; Moalusi, 2001; Tosi, 2009; Renecke, 2001; Van Vuuren, 2010; Veldsman, 1988

Historically the field, until most recently, defined its value-add exclusively as

status quo reinforcement (such as the better training of workers) and enhancement (obtaining higher productivity from workers at lower costs, for example). The exclusive focus of I-O Psychology and I-O psychologists on these two value-adds resulted in accusations that I-O Psychology and I-O psychologists were the obedient servants of power or serving management and capitalism to the detriment of employees/workers.

This criticism has been leveled especially out of the quarters of the trade unions and critical theory (or Neo-Marxists, such as T.W. Adorne, M. Alvesson, H. Marcuse, J. Habermas, M. Horkheimer) who have rallied against the way that management and business owners abused and exploited workers whilst enjoying the excesses of capitalism. It is because of this critique that the value-adds of I-O Psychology in recent years have also been extended to include status quo critique – the critique of leadership and management practices – and status quo emancipation – the setting up of radically different types of work organisations (for example, organisations in which management and workers have equal power and say).

The chosen I-O Psychology credo plays a critical role in directing and steering the expected value-add of I-O Psychology because it contains the beliefs about and rights that working people have in the world of work. In this way the chosen credo serves as an inspirational intent: the desired world of work. The greater the gap between the actual and desired world of work, the more the value-add of I-O Psychology shifts from status quo reinforcement and Enhancement to status quo critique and emancipation. Without an I-O Psychology credo, the desired value-add of I-O Psychology becomes unclear. This also emphasise the important task of I-O Psychology to stay relevant in its knowledge and how knowledge is applied.

#### **2.4.9 The I-O Psychology context – the ideological framework of I-O Psychology**

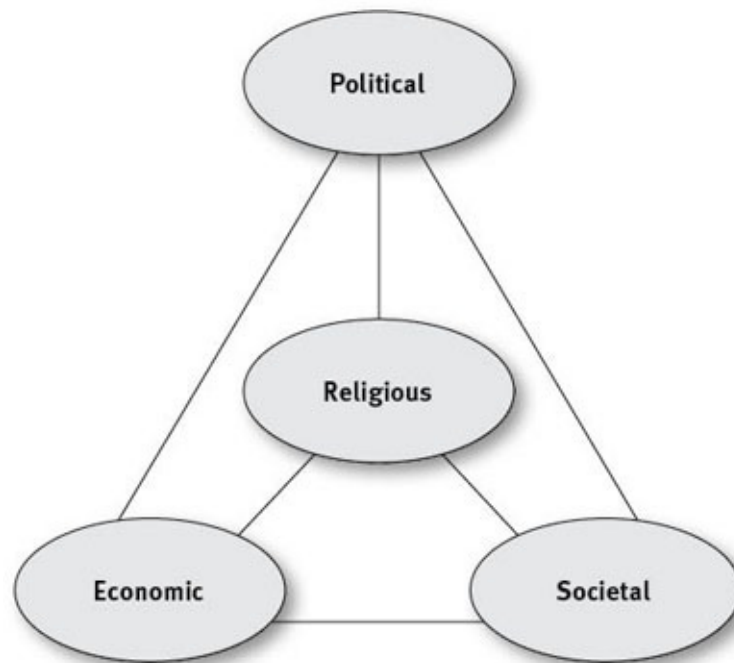
All fields of study are founded on a set of ultimate beliefs and values regarding the origin, functioning, dynamics and final destination of the world. The term that is used typically for this set of ultimate beliefs and values is “ideology”. The *I-O Psychology context – the ideological framework* (see [Figure 2.12](#)) encompasses the ultimate belief and value system of I-O Psychology that influences all of the choices and answers I-O Psychology will give to all of the above building blocks. All of the questions, choices and answers previously discussed are thus embedded within an ideological context.

Including this building block in the metatheoretical landscape of I-O Psychology, it implies that it is accepted unconditionally that no field of study is ever neutral. These ultimate beliefs and values affect how the science and practice of I-O Psychology in the final instance are framed, seen, approached, and dealt with.

The ideological framework adopted and ascribed to, can be directly linked to the contextual forces which have impacted/impact on I-O psychologists, past and present (See [Chapter 1](#)). Some of these forces are the following:

- In which country (such as the United States of America versus China) and at what time in history did the I-O psychologist concerned grow up (for example, was it in the modern age or knowledge society)?
- What were the values and beliefs of significant others in the I-O psychologist's life (parents, siblings, teachers/educators, fellow I-O psychologists, political and religious leaders)?
- In what socio-economic class did the I-O psychologist grow up and belonged/belongs to?
- Where and when did the I-O psychologist received his/her education and training; and who has she/he worked/is working with during their career as an I-O psychologist?

The contextually embedded ideological framework is made up of four interdependent ideologies as shown in Figure 2.12. The ideological framework requires an ultimate answer to the *critical question*: What ultimate beliefs and value system(s) (political, social, economical and religious) have influenced/are influencing the field of I-O Psychology, and which of these does the I-O psychologist follow?



**Figure 2.12** The interdependent ideologies making up the I-O Psychology's ideological framework.

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At least seven *dominant ideological stances* can be distinguished for I-O Psychology as given in Table 2.7. Again, you can consider what your Ideological Stance is as you read through the table.

As can be gathered from [Table 2.7](#) a wide range of ideological stances exist. These will affect how you engage with the metatheory, science and practice of I-O Psychology, because your chosen ideological stance provides ultimate answers to the origin, functioning, dynamics and final destiny of the world. This book's ideological stance is closest to the humanistic ideological stance.



**Figure 2.13** An I-O Psychology metatheoretical perspective acts as an integrated set of glasses when looking at the science and practice of I-O Psychology.

**Table 2.7** Dominant ideological stances with their applications to I-O Psychology as science and practice

THE I-O PSYCHOLOGY CONTEXT: IDEOLOGICAL STANCES	APPLICATION TO THE SCIENCE AND PRACTICE OF I-O PSYCHOLOGY  It is believed that the wherefrom and whereto of the world is to be found ultimately in .....
Materialism (including hedonism, utilitarianism, hard capitalism) (e.g., A. Smith, J. Bentham, J.S. Mill, J.M. Keynes, M. Weber, F. Hayek, M. Friedman,	the central theme of <i>(greedy) consumption</i> : self interested, consumption by individuals to satisfy his/her self centered wants and needs in accordance with what is useful to him/her within socially contracted rules.

M. Onfray)	
Humanism (including democracy, soft capitalism) (e.g., Petrarch, D. Erasmus, C.F. Potter, C. Lamont, C. Sagan, P. Kurtz)	the central theme of <i>human worthiness</i> : the socially referenced, satisfaction of individual wants and needs aimed at making a person a more worthy and valuable individual to him-/herself and society.
Ecologicalism (e.g. A. Naess, F. Matthews)	the central theme of <i>sustainability</i> : value-add by all within socially contracted rules in the pursuit of what is in the long term, to the common good and virtue of the universe as a holistic, living system.
Socialism (including communism) (e.g., K Marx; F. Engels, E. Bloch)	the central theme of <i>prescribed common social good</i> : the centralised control and regulation of the satisfaction of individual needs and wants in strict accordance with what serves the overall good of society.
Fascism (also totalitarianism) (e.g., C.J. Friedrich, Mussolini, Hitler, General Franco of Spain, O. Mosley, G. Gentile, Drieu la Rochelle, Z. Brzezinski)	the central theme of <i>absolute power</i> : the total control of society by a select few, usually led by a charismatic and revered leader, seeking to satisfy their needs and wants in accordance to what is exclusively useful to them at the expense and exploitation of the larger society.
Anarchism (e.g., W. Godwin, M. Bakunin, L. Galleani, E. Goldman, P. Goodman, J. Zerzan)	the central theme of <i>unconstrained freedom</i> : unfretted individual autonomy – no socially contracted rules at all – in seeking to satisfy personal needs and wants in accordance with self made rules and what is exclusively useful to each individual.
Nihilism (e.g., F. Nietzsche, P.G. Zaichnevsky)	the central theme of <i>nothingness</i> : life is completely without sense, meaning and purpose. There is nothing nor no-one to believe in. Life is nothing.
All of the above ideological stances, except anarchism and nihilism, may be informed ultimately by the belief in the existence of a Deity/God or not. If the belief exists in a deity/God, all of the above stances will be infused by a set of religiously sourced beliefs, subscribed to by faith. These beliefs will give ultimate answers to the questions of “Wherefrom” and “Whereto”.	
References	Craig, 1998; Hawkes, 2003; Heywoord, 2007; Lessem, 1993; McEwan, 2001; Novack, 1973; Taylor, 2007; Weiss and Miller, 1987

## 2.5 I-O PSYCHOLOGY METATHEORETICAL PERSPECTIVES: PAST, PRESENT AND EMERGING

The metatheoretical set of glasses (or thinking frameworks) used to engage with the science and practice of I-O Psychology in the final instance must cover all of the building blocks making up metatheoretical landscape (refer back to [Figure](#)

2.3). Table 2.8 provides an overview of the pre-eminent metatheoretical perspectives on I-O Psychology – past, present and emerging – which have been used/is used to conceive, understand, address, research and deal with matters making up the science and practice of I-O Psychology as contained in Worlds 3: Science and 4: Practice.

The specific perspectives form a high-level overview that focuses only on those building blocks that significantly differentiate between perspectives. Therefore, not all of the building blocks are included in Table 2.8, though all of the perspectives would have a stance on all of the building blocks.

Having worked through all of the metatheoretical questions with their range of options and positions, what are the referred metatheoretical perspectives given in Table 2.8 that you, as a reader, will adopt and apply in the science and practice of I-O Psychology? What are your reasons for adopting this perspective? Or, have you arrived at a different perspective as you reviewed the different metatheoretical building blocks?

This leaves room to generate new or different metatheoretical perspectives for I-O Psychology which may trigger new insights. What you would have noticed when comparing Table 2.8 against the available options, is that certain metaphorical options have not been used in the field of I-O Psychology.

**Table 2.8** I-O Psychology metatheoretical perspectives: Past, present and emerging

METATHEORETICAL BUILDING BLOCK	I-O PSYCHOLOGY METATHEORETICAL PERSPECTIVES (or I-O Psychology paradigms): PAST, PRESENT AND EMERGING					
	Scientific Management	Humanistic (including human relations)	Systemic	Contingency	Complexity	Emancipatory
Definition of I-O Psychology (see <a href="#">Section 2.4.1</a> )	The study of efficient work performance and its effective management	The study of individual dynamics, team dynamics and social relationships at work	The study of the dynamics and interactions of different work systems, like individuals, teams and/or organisations	The study of how work systems need to adapt to different settings and time periods	The study of how patterns of work form and dissolve, and oscillate between chaos and order	The study of the emancipation of the working class from the enslavement by the capitalist system and its derivatives
Dominant view of human work (see <a href="#">Table 2.1</a> for metatheoretical options)	Work as a curse /drudgery: minimize the physical pain and exertion	Work as self-fulfillment of the individual and /or service to the community or society	Work as self-fulfillment through the best alignment, called congruence, of input, throughput, output-and feedback loops	Work as self-fulfillment through the best fit (or match) of the individual <i>team or organisation to the demands</i> requirements of different work	Work as self-fulfillment through patterns of work that function as virtuous cycles of enriching and value-adding work, and not vicious cycles of demeaning	Work as exploitation of one socio-economic class of another class to the benefit of the former

				contexts	concerning, value-destruction	
<p>Dominant view of human psyche</p> <p>(see <a href="#">Table 2.2</a> for metatheoretical options)</p>	<p>Behaviourism: Observable behavior in the form of formally designed and programmed-in work habits, tied to monetary incentives</p>	<p>Humanistic, (including phenomenology, positive psychology): People striving for self-actualisation through realising their potential in the pursuit of happiness and well-being</p> <p>OR</p> <p>Psycho-analytical: Team members resolving unconscious psychodynamic issues with respect to authority as they struggle to determine the mandate of and the tasks to be performed by their team</p>	<p>Cognitive: Individual <i>teams</i> organisations as problem-solving and information processing systems</p> <p>Gestalt: Viewing work systems systemically and holistically as a collection of interacting variables</p>	<p>Cognitive: The ongoing optimum adjustment of the individual <i>team</i> organisation to ever varying contexts</p> <p>Gestalt: Viewing work systems in their respective contexts, systemically and holistically</p>	<p>Gestalt: A dynamic pattern of work – e.g., an organisation with its different components, like strategy, design, leadership, culture, people and technology – as a set of reciprocally influencing and interacting variables constantly varying between order and chaos</p>	<p>Humanistic: Work is good for and essential to every person, but from which working people have become alienated because their work is dehumanising since others own the means of production, and hence control the work setting absolutely</p>
<p>Dominant scientific framework</p> <p>(see <a href="#">Table 2.5</a> for the metatheoretical options)</p>	<p>Empiricism (including logical positivism or realism): The working person or organisation works like a machine. We gain knowledge of these machines in the form of facts and laws through observation, using our senses</p>	<p>Symbolic interpretive: Work is the interaction between working people who express their shared understanding of their work experiences, desires, motivation and aspirations in the form of mutually agreed-upon linguistic expressions and symbols</p>	<p>Cybernetic /systems: A working person or organisation works like a system consisting of inputs-throughputs-outputs-feedback loops which must be optimised</p>	<p>Relativistic (or postmodern): There is no generic, common work reality. Each work situation is an unique reality in its own right and requires its own specific answer and solution. No generalisations across work situations are possible</p>	<p>Chaos (or complexity): The working individual or organisation constantly moves through successive states of order, when a pattern of interactions between a set of variables has formed, and chaos when the pattern has been destroyed</p>	<p>Idealism: Socio-economic classes – capitalists /owners and the working class – is an inborn concept which pre-exists in our minds which we must discover and think through logically and rationally</p> <p>OR</p> <p>Rationalism: Socio-economic classes exist objectively in society, but we must analyse logically the concept using our rational minds</p>
<p>Essential I-O Psychology credo</p> <p>(see <a href="#">Table 2.6</a> for an aspirational work manifesto)</p>	<p>The working person has little potential, lacks initiative, is lazy, takes no initiative, is irresponsible, does not want to take any responsibility, and need to be coerced into working</p>	<p>Each working person is unique, needs to be treated with respect and dignity, is responsible, motivated, takes initiative, wants responsibility, has potential that he/she wished to develop and</p>	<p>Each person forms part of different systems. He/she must be assisted in understanding the critical role he/she must play as a component of the inputs, throughputs and/or outputs of the system to</p>	<p>Each person is unique, self-responsible, self-motivated and must take her/his own initiative to find her/his own answers – her/his own truths – to fit specific, varying circumstances</p>	<p>Each unique person forms a part of and plays a unique role in a dynamic pattern where he/she is both cause and effect in the formation, functioning and dissolution of the pattern</p>	<p>Each working person is unique, needs to be treated with respect and dignity, is responsible, motivated, takes initiative, wants responsibility, and has potential that he/she wished to</p>

	working	develop and wants to belong to	the system to bring about optimal system functioning			wished to develop. However, because of the suppression by the capitalist system, the working person is treated in exactly the opposite manner against which he/she as a class must revolt
Primary value-add of I-O Psychology (see <a href="#">Figure 2.11</a> )	Status quo reinforcement and enhancement	Status quo enhancement	Status quo enhancement	Status quo enhancement	Status quo enhancement	Status quo critique and emancipation

## 2.6. SUMMARY AND CONCLUSION

The chapter set out to demonstrate the importance of metatheoretical convictions – assumptions, beliefs and values – contained in the metatheory of I-O Psychology as the set of glasses used to look at the science and practice of I-O Psychology. If one wishes to engage authentically with I-O Psychology as a field of study, one needs to critically examine and reflect on the metatheoretical convictions ascribed to in the metatheory of I-O Psychology, which in turn, determine its science and practice.

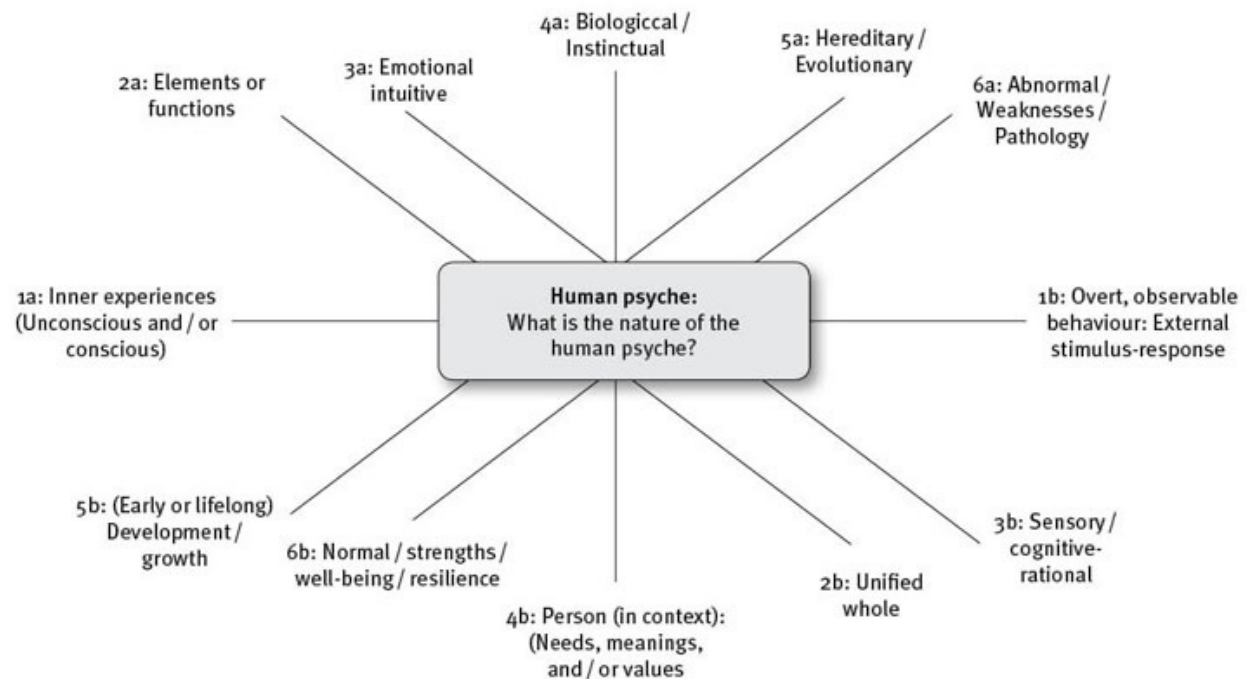
The discussion in this chapter covered the typical metatheoretical questions asked regarding the building blocks making up the metatheoretical landscape of I-O Psychology, and the currently available, dominant answers given to these questions. This discussion should enable you as reader to authentically engage with the science and practice of I-O Psychology in the balance of this book in a critical, reflective mode. It should also assist you in discovering your own metatheoretical positions, and finally to adopt your own metatheoretical perspective. This chapter also emphasises the importance for I-O Psychology and its role players to ensure that relevant metatheory is used and to determine the impact it has on I-O Psychology as a science and in practice.

## 2.7 ASSESSMENT ACTIVITIES

### Multiple-choice questions

The different human psyche stances (or schools of thought in psychology, see [Table 2.2](#)) are the outcome of the set of underlying metatheoretical choices

which are given in the spider web below. Map each of the ten of these stances onto this spider web by deciding which option applies to a human psyche stance. For example, does psychoanalysis deal with inner experiences: the conscious and/or the unconscious vs. overt, observable behaviour?



**Figure 2.14** Human psyche.

HUMAN PSYCHE STANCE	METATHEORETICAL CHOICE
Question 1: Structuralism	
Question 2: Functionalism	
Question 3: Behaviourism	
Question 4: Gestalt	
Question 5: Psychoanalysis (Freud)	
Question 6: Analytical (Jung)	
Question 7: Humanism, phenomenology	
Question 8: Positive psychology	
Question 9: Dialogical/Ubuntu/Afrocentric	

Question 10: Cognitive	
Question 11: Biological-evolutionary	

## Answers

DISCIPLINARY FRAMEWORK: HUMAN PSYCHE STANCES	METATHEORETICAL CHOICES The human psyche is.....
Question 1: Structuralism	1a: Inner experiences: Consciousness; 2a: Elements; 3a: Emotional-intuitive AND 3b: Sensory/Cognitive-rational; 4a: Person: Needs; 5b: Development; 6b: Normal
Question 2: Functionalism	1a: Inner experiences: Consciousness; 2b: Functions; 3a: Emotional-intuitive AND 3b: Sensory/Cognitive-rational; 4b: Biological/Instinctual; 5a: Heredity/Evolutionary 6b: Normal
Question 3: Behaviourism	1b: Overt, observable behavior: External stimulus-response; 2b: Unified whole; 3a AND 3b: None since inner experiences are unobservable; 4b: Biological; 5b: Life long development (programming); 6b: Normal
Question 4: Gestalt	1a: Inner experiences: Consciousness; 2b: Unified whole; 3a: Emotional-intuitive AND 3b: Sensory/Cognitive-rational; 4b: Person in context: Meanings; 5b: Development; 6b: Normal
Question 5: Psychoanalysis (Freud)	1a: Inner experiences: Unconsciousness; 2b: Unified whole; 3a: Emotional-Intuitive; 4a: Biological/Instinctual; 5a: Early development; 6a: Abnormal/Weaknesses/Pathology
Question 6: Analytical (Jung)	1a: Inner experiences: Consciousness and Unconsciousness; 2b: Unified whole; 3a: Emotional-intuitive; 4b: Person: Needs, Meanings; 5b: Life long development; 6b: Normal AND 6a: Abnormal/Pathology
Question 7: Humanism, phenomenology	1a: Inner experiences: Consciousness; 2b: Unified whole; 3a: Emotional-Intuitive; 4b: Person: Needs; Values; 5b: Life long growth; 6b: Strengths
Question 8: Positive psychology	1a: Inner experiences: Consciousness; 2b: Unified whole; 3a: Emotional-Intuitive; 4b: Person: Meanings, values; 5b: Life long growth; 6b: Normal <i>Strengths</i> Well-being/Resilience
Question 9: Dialogical/Ubuntu/Afrocentric	1a: Inner experiences: Consciousness; 2b: Unified whole; 3a: Emotional-intuitive; 4b: Person in context: Needs, meanings, values; 5b: Life long growth; 6b: Strengths/Well-being
Question 10: Cognitive	1a: Inner experiences: Consciousness; 2b: Functions; 3b: Cognitive-rational; 4a: Biological; 5a: Heredity/Evolutionary; 6b: Normal
Question 11: Biological-evolutionary	1b: Overt, observable behavior; 2b: Functions; 3a: Emotional-intuitive AND 3b: Cognitive-rational; 4a: Biological/Instinctual; 5a: Heredity/Evolutionary; 6b: Normal

## Issues for discussion and practice

1. What are the implications of ignoring or downplaying the importance of metatheory in I-O Psychology?
2. Considering the virtual knowledge society (online social networking), discuss what would be an appropriate name for the field that looks at the psychology of working people and working organisations.
3. Debate the relative strengths and weaknesses of the different I-O Psychology metatheoretical perspectives (see [Table 2.8](#)) for the science and practice of I-O Psychology.

### CASE STUDY

Think of an organisation you know/have worked for/are working for.

1. Assess and discuss in your group the work manifesto (or charter) of this organisation using Table 2.6: A world of work manifesto (or charter).
  - Which of these beliefs/rights are present or absent in this organisation?
  - Use the four point assessment scale: 4: Full compliance to belief/right to 1: Little compliance to belief /right. Give concrete examples out of this organisation to justify your rating.
2. Discuss in your group what improvements in its beliefs/rights would you suggest to the leadership of this organisation, and why?

## **PART TWO**

# **Individual behavioural processes**

The chapters in this part are concerned with individual processes that provide input into the work system. Individual processes include inherited and acquired factors that affect individuals in the work situation. Knowledge of these processes contributes towards understanding individuals as human beings and as contributors to economic life.

Genetic and biological factors provide the quantitative and qualitative parameters within which individuals develop and relate to many differences between people. Human development is the continuous process in which an individual's biological, cognitive, psychological, social and career functioning is expressed. This influences their personal growth and goals, and their cognisance of information in the environment. Other psychological and behavioural processes that are integrated into work behaviour include learning, perception, cognition, motivation and emotion as well as personality (Part 4). An understanding of these processes can contribute to an understanding of how employees perform and adjust in their workplaces.

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# Chapter 3

[The biological basis of behaviour](#)

## **Chapter 4**

[Human development across the lifespan](#)

# Chapter 5

[Learning](#)

# Chapter 6

[Perception](#)

# Chapter 7

[Cognition](#)

# Chapter 8

[Motivation and emotion](#)

## **CHAPTER 3**

# **The biological basis of behaviour**

*Antoinette Theron & Larisa Louw*



## [Introduction](#)



## Genetics



## The nervous system



## The endocrine system



## The muscle system



## Summary and conclusion



## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- explain how cell division influences growth and the similarities or differences between individuals
- recognise the role of twin studies in understanding heredity
- explain that genotype and phenotype determine individual characteristics
- explain that multiple determination influences the heritability of particular characteristics
- discuss the nervous system as an integrated whole by considering interactive parts and systems
- describe how neurotransmitters affect behaviour
- explain how functions of the frontal cortex are related to the functions of executives in the workplace
- explain what “left-brain, right-brain specialisation” means
- explain how the immune system involves mind-body interactions and precipitates sickness
- explain what is meant by the plasticity and modifiability of the brain by means of examples
- demonstrate recommendations for the design of a work station.

### 3.1 INTRODUCTION

*Biology* can be seen as the foundation to our understanding of all processes and disorders related to human development, including learning, perception, motivation, cognition, personality, social processes and psychological disorders. Biology and behaviour in work and other social situations can be understood in terms of a system approach, as each aspect influences the outcomes and inputs of the other aspects (Morris and Maisto, 2010). In simple terms; biology influences the way we interact with each other and in response to certain situations. Individual differences in biological structures determine different reactions and responses. This chapter discusses the psychobiological paradigm and explains the impact of biological processes on employee behaviour, health and work performance (Muchinsky, 2006; Morris and Maisto, 2010).

In I-O Psychology, biology can be seen as a key to unlocking the reasons to why people behave the way they do in specific situations and in essence, to understand the way their minds work. What the “*mind*” really is, is a matter of debate amongst philosophers and psychologists. But psychologists in general have accepted the notion of early experimental psychology that the mind is what the brain does (Mandle, 2006). Some investigators associate the mind with consciousness, but as the different schools of thought show, this is determined by what psychologists emphasise when trying to understand people. The biological basis remains the most fundamental reality of a living person. It is one of the fundamental concepts that aid us in understanding human behaviour.

The *aim* of this chapter is to introduce the biological aspects of the mind-body relationship and how it influences human behaviour.

## 3.2 GENETICS

*Cells* are the building blocks of life and are crucial to understanding the biological make-up of an individual, as it carries genetic or hereditary factors, which together with environmental influences play a role in determining certain human attributes and behaviours (Morris and Maisto, 2010).



**Figure 3.1** Understanding a person includes understanding that person's biology.

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### 3.2.1 Cells

All living organisms are made up of functional units called cells. Through the process of *cell division*, these cells can reproduce or recreate themselves to sustain the organism throughout the life cycle.

As humans, we consist out of trillions of cells and each cell as a living unit exists, performs *chemical reactions* and helps the body to function properly. All the cells, although different in terms of function and form, have certain structural and functional features in common, like metabolism, respiration, growth, stimuli reception, movement and reproduction.

#### 3.2.1.1 Mitosis

When the female egg (ovum) is fertilised by the male sperm, a single cell is

formed. This cell is called a *zygote* and from this cell, a human being develops. Through a process of cell division, this zygote develops into the various types of cells which eventually make up organs, muscles, glands, bone, blood and nerves. This process, where the cell splits into two new cells, is known as *mitosis*. Mitosis sustains growth and ensures that the organism is kept alive and functioning throughout the life cycle. When tissue is damaged, like when you scratch your knee or cut your finger, mitotic cell division regenerates identical cells to replace the damaged ones (Guyton, 1996).

### **3.2.1.2 DNA**

Essentially, cells form part of a larger molecule called *deoxyribonucleic acid (DNA)*. The cores of these cells are known as *genes*, which are also known as the functional units of heredity, because they carry hereditary transmissions from parents to their children (Weiten, 2008). The word “gene” is derived from the Greek word meaning “to give birth”.

A *chromosome* consists of DNA molecules which are twisted around a central strand. It contains thousands of DNA *molecules* and each cell is made up of 46 chromosomes, which are organised in 23 pairs, consisting of anywhere between 50 thousand to one million DNA molecules. DNA modules also use mitosis to replicate and divide identically in new cells in order to maintain the individual’s genetic material.



**Figure 3.2** Strands of DNA contain the recipe for shaping and maintaining a human body.

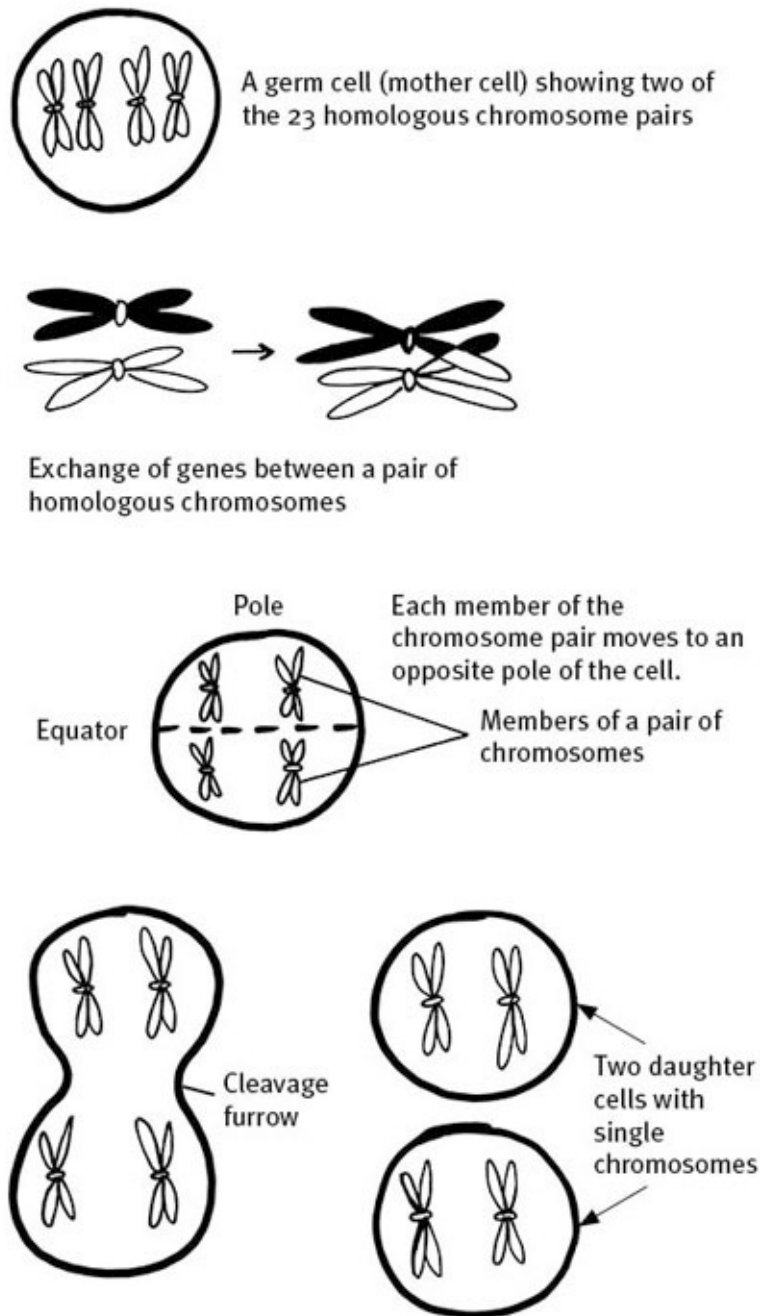
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### 3.2.1.3 Meiosis

On reaching puberty humans are capable of *reproducing*, owing to a type of cellular division known as *meiosis*. Meiosis occurs in the *germ* cells to produce *ova* and *spermatozoa*. In mitosis new daughter cells contain the same number of chromosomes (46) as the parent cell, whilst in meiosis each daughter cell receives only half (23) the number of chromosomes of the parent cell.

In simplified terms, meiosis involves the following stages (see Figure 3.3):

- The chromosomes arrange themselves in *homologous pairs* (thus termed because each chromosome in the pair carries genes producing similar bodily attributes).
- It may happen that a part of a single chromosome breaks off and exchanges places with a corresponding part of a homologous chromosome (the other part of the pair), thereby altering the DNA composition of a single chromosome. This exchange of DNA is called *crossing-over* and is a factor that contributes to differences between parents and their offspring.
- The two members of each chromosome pair move to random opposite poles on either side of the equator of the cell.
- A cleavage furrow forms around the centre of the cell and each cell divides into two daughter cells, each containing 23 single chromosomes.



**Figure 3.3** Meiosis (simplified).

Each daughter cells divide into two new daughter cells, keeping the chromosome and DNA quantities constant. A total of four cells are therefore produced by the original germ cell.

In females three of these cells usually disintegrate, and the fourth cell

develops into an ovum. The two female ovaries normally produce an ovum each every other month.

In males these cells develop into sperm cells. One ejaculation may release up to 200 million sperm cells. The number of sperm cells varies according to age, physical and psychological state of the individual. Only one of the sperm cells fertilises the ovum. If not fertilised, the ovum is discharged in the menstrual cycle.

### **3.2.2 Twins**

*Identical twins* (monozygotic twins) develop when a zygote divides mitotically soon after conception. In this case the hereditary basis is the same and any observable differences are due to environmental influences.

*Dizygotic* (non-identical or fraternal) *twins* are no more alike than any siblings born at different times. They are formed by the fertilisation, by different sperm cells, of two ova produced at more or less the same time.

Studies have indicated that there are greater differences between identical twins that have been separated and brought up in different environments than between those who have grown up in the same environment, which points to an environmental influence on genetic factors. Identical twins reared in the same environment show a closer resemblance to each other than non-identical twins reared in the same environment show to each other. This indicates the influence of hereditary factors, irrespective of the environment. Various sorts of beliefs and attitudes have also been proven to be influenced by genetic factors (Klump, McGue and Iacono, 2003; Koenig, McGue, Krueger and Bouchard, 2005; Olson, Vernon, Harris and Jang, 2001; Taylor, Jang, Stein and Asmundson, 2008). Recent studies have focused on the importance of genetic factors in the development of psychological disorders such as obsessive compulsive disorder (Taylor, Tracie, Stein, Asmundson and Lang, 2010).

Twin studies are widely used in studying genetics.

### **3.2.3 Sex determination**

The *gender* (male or female) of an individual is determined by only 1 pair of the 23 pairs of chromosomes in the germ cell. Sex chromosomes may be either X chromosomes or Y chromosomes. Two X chromosomes produce a female, whilst the XY combination produces a male. On the separation of chromosomes during meiosis the daughter cells of the male parent cell may contain either an X or a Y chromosome, whilst the daughter cells of the female parent cell will each

contain an X chromosome. Should the ovum be fertilised by a sperm with a Y chromosome, the new organism will be a male, whereas a combination of two X chromosomes from both parents produces a female. Sex is therefore determined by the chromosome contributed by the father.

### 3.2.4 Genotype and phenotype

The *genotype* of each individual refers to their genetic design, which determines aspects such as intelligence, temperament, personality traits and predispositions to certain illnesses, such as types of cancer, Huntington's disease, muscular diseases and various others (Morris and Maisto, 2010; Taylor, 2006; Wade and Tavis, 2009). Genes control specific characteristics, either separately or in conjunction with other genes. Some genes have a *dominant effect* which manifests itself, whilst others are only manifested in observable characteristics if two identical genes originate from both parents respectively. The latter are known as *recessive genes*. Examples of recessive characteristics are blue eyes, blonde, red or straight hair, baldness, night blindness, congenital deafness and albinism.

The genetic foundation of an individual is his/her *genotype*. An individual's noticeable characteristics are his /her *phenotype* (Wagner and Silber, 2004). As a result of dominance and recessiveness of the genes, genotypes and phenotypes are not identical in every aspect. The genotype comprises the genetic content which is passed on to an individual's descendants, whereas the phenotype refers to the observable effects of genes, as well as the manifestation of genotypical characteristics owing to environmental stimulation. The phenotype refers not only to observable physical attributes, but also to psychological traits that manifest themselves because of environmental experience.

The environment determines whether, and to which extent, some traits develop into functional characteristics. An individual may be genotypically endowed with an aptitude for artistic expression, but if his/her environment offers no scope for developing this ability, it may remain hidden.

Genetic *predisposition* is one of several factors that can cause diseases such as cancer and coronary heart disease. Family history of such diseases may be a predictor, but, if such a history is absent, personality characteristics may become significant causes. For example, the inability to effectively deal with stress and poor social relations play a part in the development of illness. Negative emotions and stress can lead to an increased risk to develop certain types of cancers (Kruk, 2012). Recent studies have also proven the opposite; that positive affect and

emotions can improve health (Dockray and Steptoe, 2010; Marsland, Pressman and Cohen, 2007; Ong, 2010).

Parental love is seen as genetically determined, although parents vary significantly in their behaviour towards children. Some parents, particularly mothers, can be prepared to bestow advantages to their children at a cost to themselves. Thus the most basic form of genetically driven unselfishness is parental care.

### **3.2.5 Multiple determination**

Most characteristics are not determined by the dominance or recessiveness of pairs of genes, but by the combined influence of various genes. This is referred to as *multiple determination or polygenic heredity*, and it develops most characteristics applicable to work. This includes intelligence, temperament and personality. As a rule, however, these characteristics cannot be defined in terms of heredity only, because of the complex interaction of heredity and environment.

*Intelligence* comprises various factors, including verbal fluency, verbal comprehension, reasoning ability, abstract thinking, ability to see spatial relations and number facility. In intelligence testing these factors are measured separately, but are also combined to represent intelligence as a general factor called a “g-factor”. This refers to general intelligence, which is seen as significant in performance in general. Research shows that the g-factor, as measured, shows a relation to heredity (Daery, Penke and Johnson, 2010). Research also shows that different aspects of intelligence are determined by the same genes (Plomin and Spinath, 2004).

*Temperament* refers to the prevalence of certain moods in an individual, such as being predominantly active or passive, or being quick or slow to react emotionally. Specific gene variations have been associated with neural network activity, which in turn influences regulation aspects like temperament and behaviour (Posner, Rothbart and Shees, 2010).

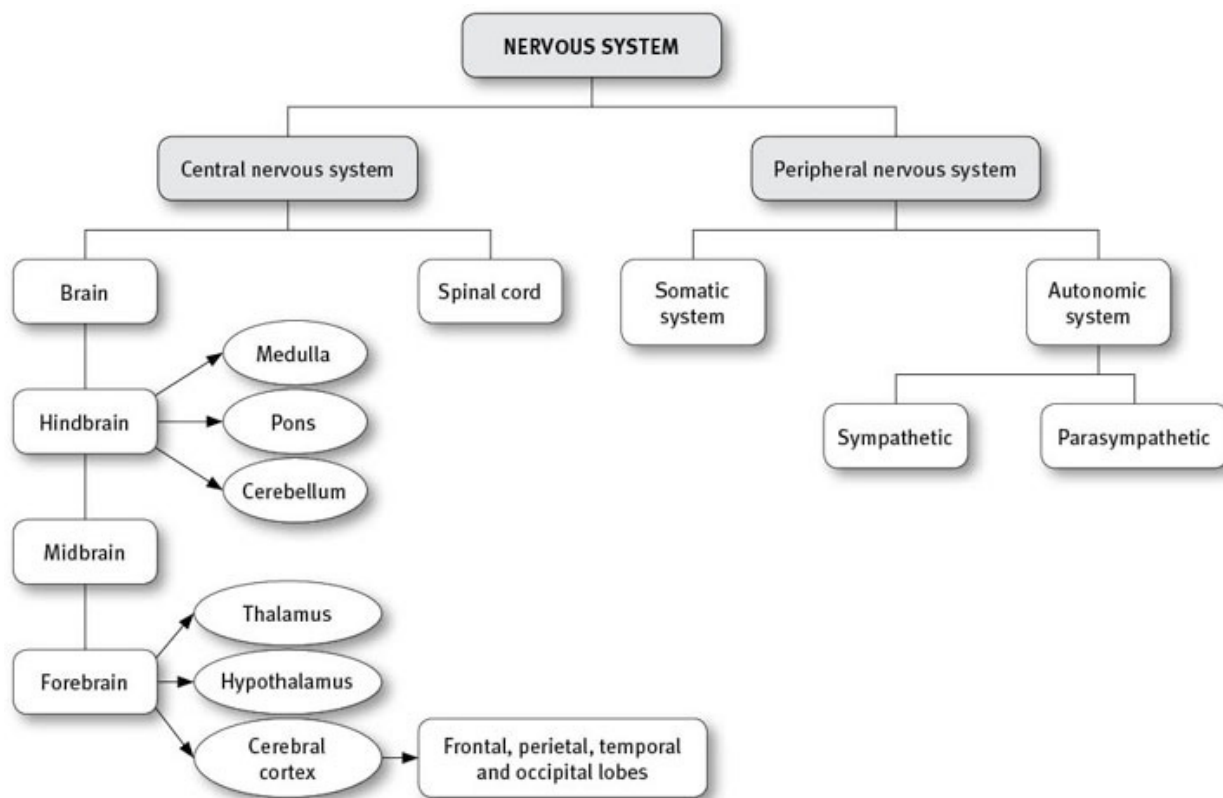
*Personality* also consists of various traits that are seen as partly caused by heredity. In a recent longitudinal twin study, genetic factors were identified as the main sources contributing to phenotypic long-term stability of personality in young and middle adulthood, whereas change in personality was predominantly caused by environmental factors (Kandler, Bleidorn, Riemann, Spinath, Thiel and Angleitner, (2010).

Heritable personality traits that indicate potential leadership and what type of

leadership an individual will develop are conscientiousness and extraversion (Johnson, Vernon, Harris and Jang, 2004). (Extraversion is a trait of individuals who focus mainly on people and things outside themselves rather than aspects inside themselves.) These two characteristics are related to transformational leadership, which involves focusing on change and consideration of the individual. The various degrees of genetic influence are seen in a study (Ilies and Judge, 2003) that shows that 24% of genetic influences on job satisfaction are determined by personality and 45% by temperamental aspects associated with positive and negative moods and emotions.

### 3.3 THE NERVOUS SYSTEM

The *nervous system* is made up of the *central nervous system* and the *peripheral nervous system*. (see Figure 3.4) The *functions* of the nervous system are interrelated. Different parts have specialised functions which influence the functions of other parts and *vice versa*. Together they constitute the organised functioning of the nervous system as a whole.



**Figure 3.4** The organisation of the nervous system.

### 3.3.1 The neuron

The human nervous system relies on specialised cells to carry out its functions. The *neuron* (nerve cell) is the main *transmitter* of communication throughout the nervous system.

*Glial* cells which are also found in the nervous system, serve to clean up debris and to prevent certain substances in the bloodstream from reaching the brain.

Neurons transmit stimuli originating either in the environment or within the individual to the brain and other parts of the body, where these stimuli acquire functional significance. But even without the presence of external stimuli, the nervous system is a hive of constant spontaneous electrochemical activity. Some neurons, for example, are more active whilst the individual is asleep, becoming less so during waking hours. The nervous system in totality consists of approximately nine trillion neurons that are extensively varied in function (Rosenzweig and Liang, 2000).

A neuron is a cell which specialises in communication of information throughout the nervous system. The various sections of a neuron play different roles in this communication process.

The *cell body* contains the nucleus which provides the cell with energy and contains the genetic information.

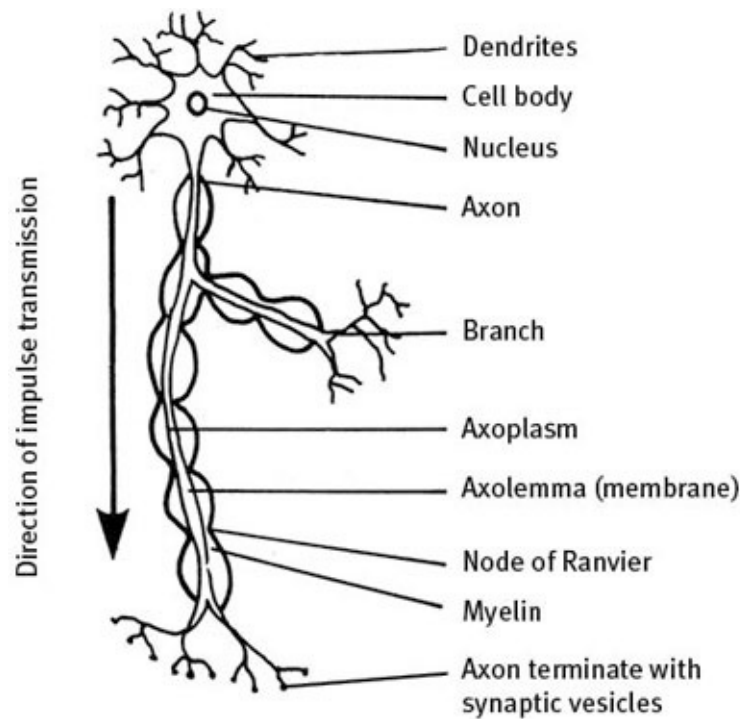
The *dendrites*, which resemble branches, receive information from other neurons, whilst the axon carries information away from the cell body via the ions.

The *ions* are chemicals with positive or negative charges which jump from one gap of the Nodes of Ranvier to another to relay information.

The *Nodes of Ranvier* are gaps in the myelin sheath, which is a fatty substance that protects the axon. Multiple sclerosis is caused by the degeneration of this myelin sheath, characterised by jerky, uncoordinated movements.

The *axon terminals* form the end part of the axon and contain the *axon terminal buttons*. These buttons contain chemicals called neurotransmitters which are responsible for sending messages to adjacent neurons.

The *synapse* area is the area between the dendrites of one neuron and the axon terminals of another neuron. This is also the space where information is released.

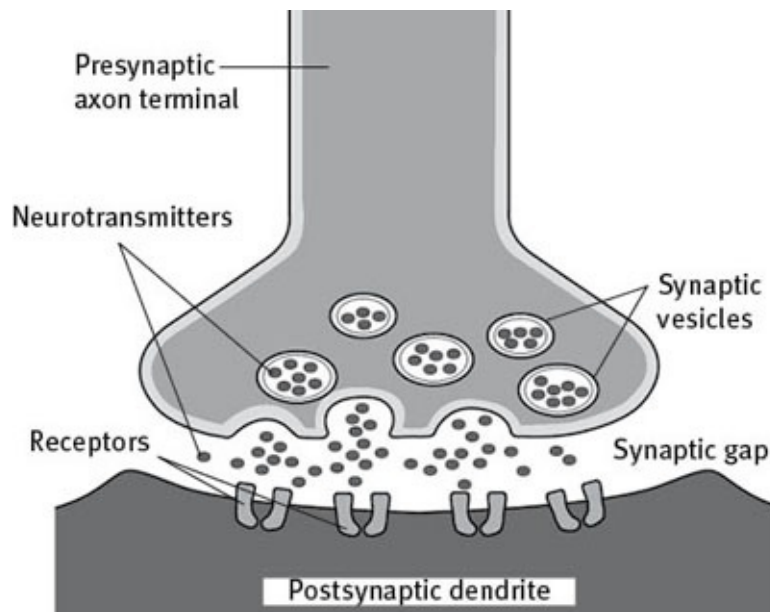


**Figure 3.5** The structure of the neuron.

### 3.3.1.1 Neurotransmitters

The chemicals released into the synaptic gap are called *neurotransmitters*. Some of these chemicals may have an *excitatory* effect on the next (post-synaptic) neuron, whilst others have an *inhibitory* effect, which arrests the impulse at that point. This is determined by their effects on the receptors in the dendrites of post-synaptic neurons. Both excitatory and inhibitory effects of neurotransmitters contribute to regulation of mental activity and different behaviours in different parts of the nervous system. Acetylcholine, for example, influences muscle contraction. Norepinephrine (noradrenaline) influences emotional arousal, such as anxiety (Bradshaw, 2003) and modulates memory (Tully and Bolshakov, 2010). Serotonin has the function of inhibiting aggression. If synaptic levels of serotonin are low, aggression becomes higher. As an individual reaches a higher dominant position in a group, the level of serotonin has been found to decline (Rosenzweig and Liang, 2000). Low serotonin levels (which can be caused by early childhood abuse or trauma), together with other chemicals, is associated with depression (Miller, Kinnally,

Odgen, Oquendo, Mann and Parsey, 2009). Serotonin also regulates various biological processes, like cardiovascular function, bowel motility and bladder control (Berger, Gray and Roth, 2009).



**Figure 3.6** A synapse.

Neurotransmitters are implicated in many, perhaps most, major *mental disorders*. Therapeutic drugs affect neurotransmitters in various ways and can, for example, have anti-depressant and anti-anxiety effects (Sher and Trull, 2000).

Inhibition of the nervous system is induced by alcohol intake, which affects the functions responsible for normal inhibiting behaviour. When the percentage of alcohol in the blood rises from 0,10% to 0,65%, the blood supply to the neurological centres causes confusion, loss of coordination and stupor owing to a lack of inhibition. Alcohol inhibits the normal effects of dopamine and glutamate, which normally have excitatory effects on brain functions. Dopamine affects the experience of pleasure. Chronic consumption of alcohol results in diminished receptivity to dopamine and seems to be related to the body developing a tolerance to alcohol (Gilpin and Rpberto, 2012). Glutamate affects rapid behavioural actions. Alcohol inhibits these effects, which could explain the sedative, anaesthetic effects that alcohol has on actions.

The reactions of individuals addicted to alcohol vary. Some become violent and others withdrawn. This could be ascribed to the influence of alcohol on

various receptors in post-synaptic neurons, which produce various effects (Gilpin and Rpberto, 2012) Alcohol addiction eventually causes serious impairment in various cells and systems, including the cells of the limbic system which controls emotion, those of the frontal cortex which controls goal-directed behaviour and the visual cortex (Huang and Huang, 2007). Impairment is, however, also influenced by individual vulnerability.

### 3.3.1.2 Summation

A single axon and its branches can transmit impulses to a number of neurons. Several neurons can also convey stimuli to one neuron. Should the chemicals released by one neuron to a synapse be inadequate to activate the next neuron, impulses from other neurons combine to provide a stimulus strong enough to exceed the threshold of the post-synaptic neuron. This is known as *spatial summation*. Successive impulses from one axon may, however, collectively activate the post-synaptic neuron, in which case one speaks of *temporal summation*.

Summation is important in explaining memory. Repeating a name or telephone number in order to remember it, may, for example be explained by temporal summation, whilst the organisation of complex memories could be explained by spatial summation, involving various neurons.

The axon of a single neuron may be in contact with as many as 100 post-synaptic neurons whilst the dendrites of a neuron may link with up to 1 000 pre-synaptic neurons. Multiple synaptic activity directly affects receptors in post-synaptic neurons, and therefore responses to stimuli. But this is modulated by various factors such as attention, arousal, emotion and motivation.

### 3.3.1.3 Classifying neurons

Neurons differ in shape, size and function. They are normally grouped according to their structure into, sensory neurons, motor neurons and association neurons.

*Sensory neurons* (afferent neurons) receives information via the senses, such as hearing, smell, vision and touch from the outside world, and communicates this information to the brain, making them afferent.

*Motor neurons* (efferent neurons) are in turn efferent, because they transmit information from the brain to the body and muscles.

*Association neurons or interneurons* communicate with other neurons, which aids thinking, memory and perception by way of linking all the information.

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## **The plasticity and modifiability of the nervous system**

Structurally and functionally the nervous system has specialised characteristics that all people have in common, but dynamically its effects vary between individuals. This is because it has plasticity and modifiability, which means it changes according to stimulation and experience. Older people, for example, can augment their cognitive efficiency by remaining mentally active after retirement. Plasticity also implies that the functions of damaged parts of the brain can be taken over by undamaged parts.

### **3.3.2 The central nervous system**

The central nervous system consists of the spinal cord and the brain.

#### **3.3.2.1 The spinal cord**

The *spinal cord* is situated in the spinal column and enclosed by 31 vertebrae. In an adult, the spinal cord is approximately 45cm long and weighs about 30g. The spinal cord connects many of the nerves that make up the peripheral nervous system to the brain. Although the spinal cord constitutes only about 2% of the central nervous system, its importance far outweighs its size. Through this connecting structure, sensory impulses from the body reach the brain, and motor impulses from the brain descend to control motor activities of the body (allowing the brain to link reflex behaviour and the higher mental processes it controls). For example, if you step on a thorn, it stimulates the pain receptors in your foot, which influence the sensory neurons. The association neurons in the spinal cord send a message to the motor neurons, which send the message to your leg muscles to pull up your foot. If the spinal cord is injured, loss of voluntary movement can be the result due to a disruption in communication with the brain.

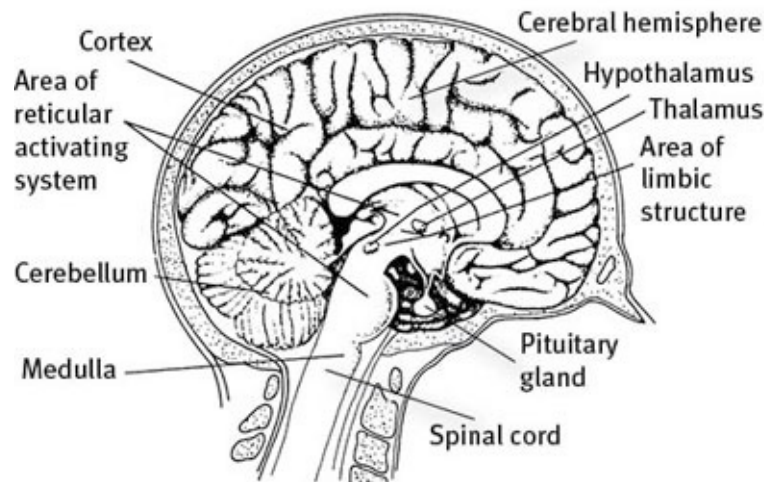
#### **3.3.2.2 The brain**

The adult human *brain* has a mass of approximately 1,5kg. This represents less than 3% of total body mass. Despite its small mass, the complexity of the human brain makes humans unique amongst all other living animals. It is the brain that allows humans to think, plan and process all the sensory information gained from the environment. The brain enables humans to monitor changes in both their internal and external environments and to produce the appropriate

responses to these changes.

The brain is composed of some ten billion nerve cells grouped in different structures. For example, there are clusters of the cell bodies of neurons called *nuclei*, and bundles of axons of groups of neurons constituting the nerves that link the various parts of the nervous system.

Cerebral activity is sustained by oxygen and nutrients. These are conveyed to the brain by the blood, in the same way that the blood conveys these substances to the rest of the body. Fainting is caused by a deficient supply of oxygen to the brain.



**Figure 3.7** Different sections of the brain.

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The electrical activity of the brain can be measured by an electroencephalograph (EEG), which was developed by Hans Berger, a psychiatrist, in the 1920s. This device registers brain waves graphically by means of electrodes linked to the scalp. The graphic report is known as an electroencephalogram (also referred to as an EEG). It indicates which parts of the brain process certain types of information, and it is used to diagnose cerebral damage or abnormalities such as epilepsy.

Epilepsy is caused by excessive discharges of stimuli by neurons. Depending on the type of epilepsy, these may be accompanied by abnormal muscular spasms or brief arrests of consciousness. Although epileptic attacks can be chemically controlled, some epileptics are limited in their choice of vocation. For example, they cannot operate machinery or drive vehicles that will endanger life when their nervous activity disturbs their control over bodily functions.

(Engel, Pedley and Aicardi, 2008).

We will discuss the subcortical areas, namely the brainstem, the pons, the medulla oblongata, the reticular activating system, the cerebellum, the thalamus, the hypothalamus, the limbic system and the medulla oblongata first and then move to a discussion of the main surrounding cortical areas.

The *brainstem* is located at the base part of the brain, close to where the spinal cord begins. It is made up of three parts, namely the midbrain (upper part), the pons (center) and the medulla oblongata (lower part) (Wolfe, 2010). The brainstem ensures the body's survival by regulating autonomic functions such as breathing, blood pressure and heartbeat. The reticular system also controls awareness levels. The brainstem also produces many of the chemical messengers of the brain. The brainstem's core consists of a network of fibres and neurons named the *reticular formation* (RF) and it receives information from the whole body. The midbrain is responsible for communicating sensory and motor impulses between the hindbrain and the forebrain. The midbrain also coordinates visual and auditory reflexes. The so-called reticular activation, or formation system, runs through the hindbrain and midbrain, and situated at the centre of the brainstem, is responsible for the modulation of muscles, reflexes, breathing, pain perception and especially sleep and wakefulness. The pons plays a role in respiration, sleep and arousal (Wolfe, 2012). The medulla oblongata, or myelencephalon, is the lowest portion of the brain stem, just above the spinal cord. It is responsible for breathing and heart rate and can be suppressed by substances, such as heroin or depressant drugs. The medulla contains nerve cells controlling *vital functions*, such as respiration and blood pressure. It also acts as a relay station for the transmission of actual information, such as a skin sensation caused by contact with a person or object.

### **The reticular activation system**

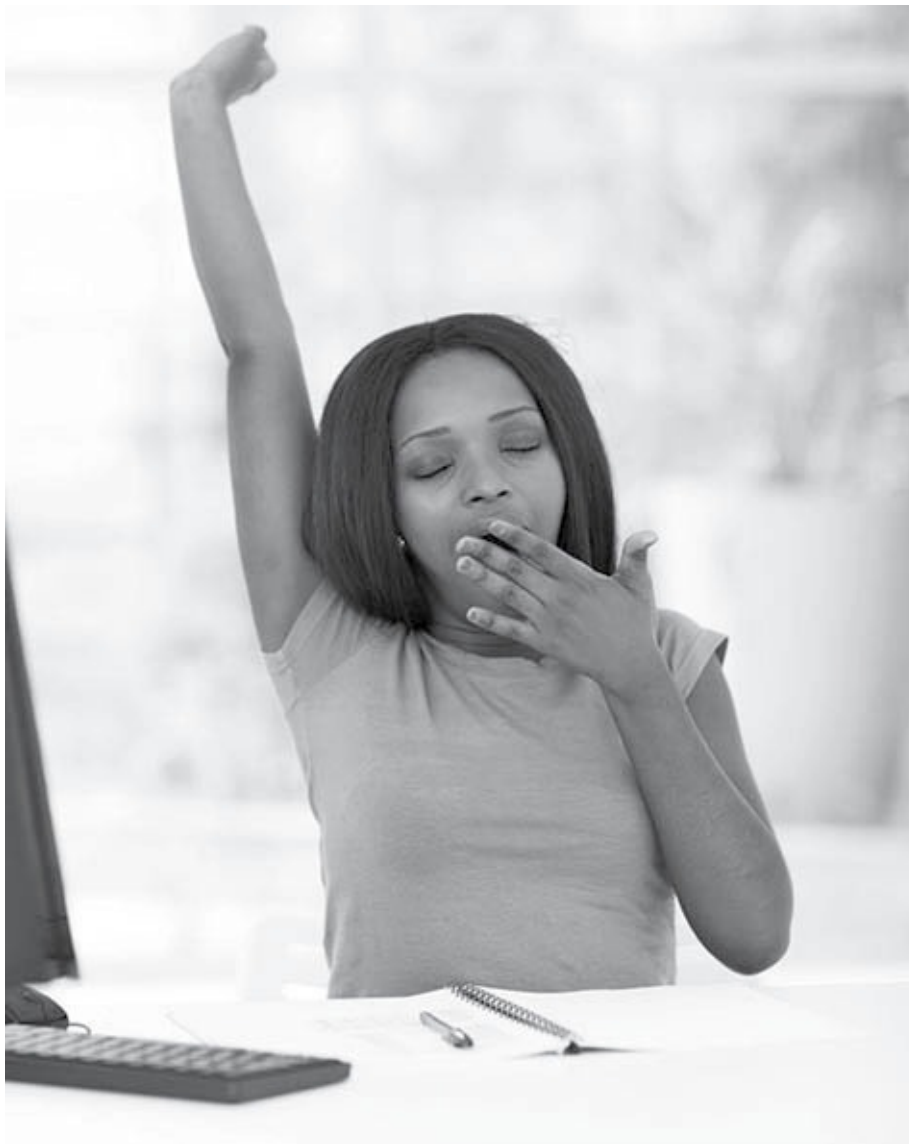
The RF, neurons in the thalamus and other neurons from various sensory systems of the brain, form the reticular activation system (RAS). It serves as a *coordinating centre* consisting of diffused cells with inhibitory or facilitating (excitatory) functions involving arousal, sleep and wakefulness. This mechanism brings the whole body to a state of alertness and readiness. The RAS also filters out irrelevant information from the environment to enable concentration and focus. Sensory stimuli from the receptors activate the RAS, which transmits impulses to the cerebral cortex, thereby enhancing its receptivity to sensory messages. The RAS sifts the impulses so that not every stimulus from the immediate environment is registered.

The cortex in turn transmits impulses to the RAS, inhibiting or facilitating its functioning. For example, an employee's attitude to a superior (information stored in the cortex) determines whether he/she will act on the instructions of the superior (activation of the RAS by the motor areas of the cortex) or conveniently fail to notice them (inhibition of the RAS by the sensory cortex). This may also explain why the recollection of stressful situations can cause increased anxiety levels.

The RAS consists of two parts. Electrical stimulation of the lower part appears to be inhibitory, inducing somnolence and fatigue. The degree of weariness depends on a balance between inhibitory and excitatory effects. When the inhibitory action predominates, motor readiness is reduced. Monotony, which plays a part in fatigue, is caused by insufficient or inadequate stimulation from the environment. This means that there is little stimulation of the excitatory part of the RAS. Increased activity of the inhibitory RAS results in fatigue and reduced alertness.

## The cerebellum

The *cerebellum* is situated at the back of the brain as is the key to balance and coordination. It is translated from the Latin and means “little brain”, as it resembles a smaller version of the brain. This part of the brain records and stores childhood movements and actions required for different movements for recall throughout life. Damage to the cerebellum results in uncoordinated movement, affecting actions such as walking, writing or making music (Schweizer, 2008). Rapid, alternating movements such as those used when playing a piano require an intact cerebellum.



**Figure 3.8** A student experiencing fatigue.

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**The thalamus**

The *thalamus* is situated deep inside the brain, just above the brainstem. The basic function of the thalamus is to act as a relay station from which impulses are routed to and from the cerebral cortex. Except for the sense of smell, all *sensory impulses* arriving at the brain must pass through the thalamus before being projected upward to specific areas of the cortex. The thalamus also helps to interpret simple sensations, such as pain, temperature, and crude touch and pressure sensations. As a relay station via which most inputs to the cerebral cortex pass, the thalamus also plays a part in sleep and wakefulness. Serotonin, which is involved in depression, and other chemical substances are implicated in these functions.

## **The hypothalamus**

The *hypothalamus* is situated below the thalamus and is one of the primary brain regions that control the involuntary activities of various organs of the body, such as the heart, lungs, digestive tract and excretory system. The hypothalamus controls body temperature, appetite and feeding behaviour, thirst, sleep and wakefulness, psychosomatic events and activities of the endocrine system (Saper, 2003). The hypothalamus also controls the pituitary gland, which in turn controls other glands affecting emotional and motivational aspects of behaviour.

The hypothalamus also controls what is known as the “fight or flight” response (Wolfe, 2010). For example, when you get a fright, you will experience increased heart rate, sweaty palms and increased respiration.

Research has shown that neurons in parts of the hypothalamus secrete hormones that play a part in social attachment and affection, and are also involved in reproductive and parental behaviour (Kalat, 2012).

## **Why do we sleep and dream?**

Everybody dreams but not all dreams are consciously remembered. Dreams occur during a type of sleep called REM (rapid eye movement) sleep, so called because it is characterised by rapid eye movements under closed eyelids. When REM sleep is interrupted or a person is deprived of it one night, there might be an increase in REM sleep the following night, which indicates that the person needs more dream sleep. The reasons why people need dream sleep are not clear, but research suggests it might have to do with consolidating memories and reorganising cognitive information accumulated during wakefulness (Gollwitzer, Delius and Oettingen, 2000).

The same neurons that conduct impulses during daytime (for example, when the individual is learning a specific task) are activated during REM sleep, as well as in rest periods during the day. Research also suggests that rather than consolidating neuron connections responsible for a specific task, sleep weakens the connections between neurons, thereby possibly clearing the mind to be ready to learn something new the next day.

Whatever its functions, sleep is a fixed biological necessity which

is part of pervasive cyclic changes in brain function. This might be related and adjusted to light/dark cycles. Consideration of sleep and rest periods is essential in shift work, such as nursing, security or police work. If the amount of sleep the individual needs is reduced, the urge to sleep becomes even stronger, with consequent lower performance. For example, a nurse may fail to do extra checkups on patients, or a security officer may fail to do another round of the place being guarded.

## **The limbic system**

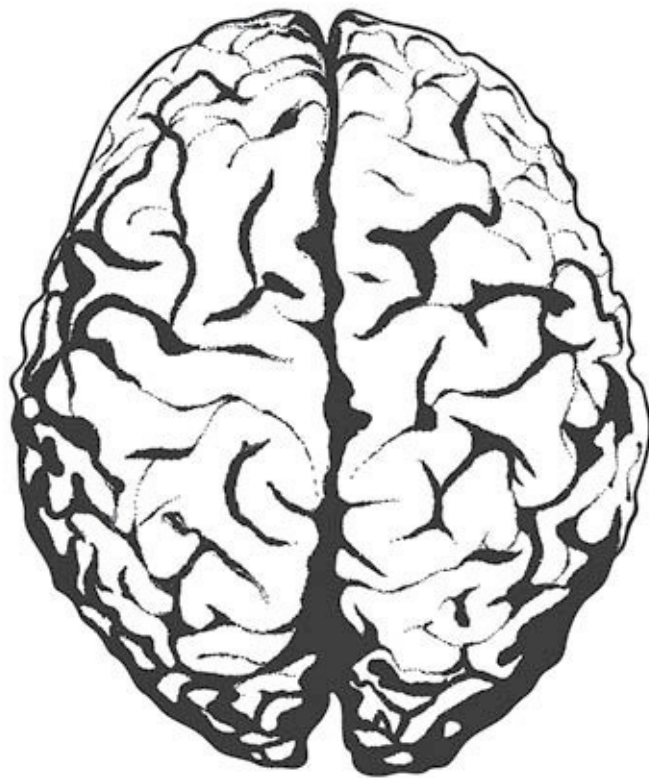
The *limbic system* consists of a number of structures linked to the thalamus and hypothalamus. Electric stimulation of different parts of the limbic system evokes *emotional responses* such as excitement, despondency, mobility, passivity and anger. The cerebral cortex also contains a limbic area that would appear to store past emotional experiences, such as experiences related to pain, smell or sexuality.

The hypothalamus, a major integration area for involuntary, visceral activity, is a central part of the limbic system. Thus, involuntary physiological activities of various organ systems are often associated with emotional states. For example, feelings of guilt or anxiety often cause elevations in blood pressure and heart rate, as well as changes in respiratory rhythm and the electrical conduction of the skin. It also plays a role in consolidating facts into memory (Wolfe, 2010).

## The cerebral cortex

The *cerebral cortex* is the outer layer of the brain, comprising approximately 80% of the total brain capacity of humans. The cerebral cortex (or just “cortex”) processes complex mental data and is referred to as the “grey matter” of the brain. It is accommodated in the relatively small cranium (skull) by means of folds that look like deep wrinkles.

The cortex surrounds the cerebrum, constituting its outer part. The cerebrum comprises the two cerebral hemispheres, referred to as the left and right hemispheres of the brain (see Figure 3.9). The cerebral *hemispheres* appear to be two structures, but they are functionally closely connected. They largely work together (Sternberg, 2006).

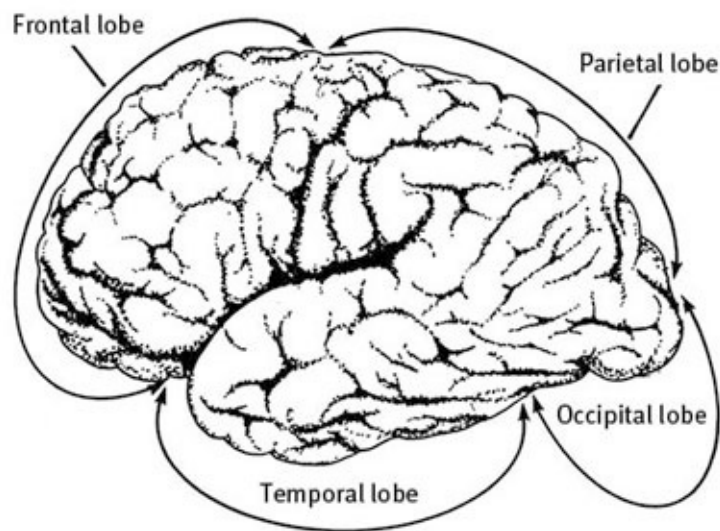


**Figure 3.9** The cerebrum comprising the two cerebral hemispheres, surrounded by the cerebral cortex.

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The many folds of the cerebral cortex make certain areas distinguishable, which are called *lobes*. There are four lobes called the parietal, occipital, temporal and frontal lobes. Each of these areas has certain specialised functions. In research on the brain the lobes are also referred to as the parietal, occipital, temporal and

frontal cortex. Each of the two hemispheres is surrounded by these four areas (see Figure 3.10).



**Figure 3.10** Cerebral hemisphere.

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## **Hemisphere lateralisation**

Besides their largely coordinated functioning, each of the two hemispheres also controls specialised functions. This is called hemisphere lateralisation, which means that the left hemisphere (the left side of the brain) and the right hemisphere (the right side of the brain) each also has specialised functions. The left hemisphere is more specialised for language functions, logical thinking, and analytical and mathematical tasks. The right hemisphere is more specialised for spatial visualisation, holistic processing, imagination, intuition and musical and artistic activities.

Some researchers believe that not only is a particular hemisphere more dominant than the other when the activities that it controls are being carried out, but also that in certain individuals one of the hemispheres is generally dominant, as would appear from typical behavioural activities. For instance, a person may be inclined to process information either analytically or intuitively.

Each hemisphere is neurologically connected to the opposite side of the body. The left hemisphere regulates the functions of the right-hand side of the body (for example, the right eye's vision and right-handedness). The right hemisphere controls the functions of the left-hand side of the body (for example, the left eye's vision and left-handedness). Hence where one hemisphere is dominant, the various specialised functions may also be associated with left-or right-handedness, depending on the degree of domination. Hemisphere dominance may be a preferred way of thinking influenced by learning, but it is not necessarily the individual's strongest characteristic (Viljoen, Panzer, Roos and Bodemer, 2003).

In the event of cerebral damage, the plasticity of the brain is significant. For example, impaired language functions owing to damage of the temporal lobe of the left hemisphere may be transferred to the right hemisphere, contributing to rehabilitation (Wilson, 2003).

The *parietal lobe* has as its primary function the receipt of sensory input from various parts of the body. The parietal cortex controls speech and tactual

perception (touch). Damage to this area may result in incapacity to distinguish the relative mass of objects and differences in texture one senses when touching them (Wolfe, 2010).

The *occipital lobe* controls visual perception, which is why it is also called the visual cortex. The finding that visual perception is controlled by different parts of the cerebral cortex shows that the nervous system functions according to a division of labour. Various visual representation areas, for example, are responsible for processing the perception of colour, form, motion and the positioning of visual stimuli (Rosenzweig and Liang, 2000). Damage to visual pathways on one side, impairs vision on the opposite side (Wolfe, 2010). Damage to this area may cause an inability to discern, for example, the significance of visually perceived objects (Guzette, D'acunto, Rose, Tinelli, Boyd and Cioni, 2010). Occipital damage has been related to the impaired ability of brain-damaged soldiers to pay visual attention to objects (Marshall and Gurd, 2003).

The *temporal lobe* controls auditory stimuli, such as hearing, language and auditory memory. It allows us to recognise certain sounds from our environment and to distinguish between familiar and unfamiliar sounds and to communicate with each other (Wolfe, 2010). Damage to this area may cause deafness or significant hearing loss.

The *frontal lobe* is responsible for cognitive control of information processing by sending information to other parts of the nervous system. Thereby it facilitates purposeful and goal-directed behaviour. It is called the executive part of the brain because it functions similarly to a company's chief executive officer (CEO), who, at the top of the corporate hierarchy, can exert influence anywhere in the company by distributing control to experts, solving problems that are beyond their expertise, handling conflict, evaluating and putting plans into effect, and giving instructions to others, who carry them out (Cohen, 2002). The frontal cortex's executive roles are the selection and interpretation of information, the modulation and transmission of information by meaningful organisation and the guiding of information flows in other parts of the system, through the influence of the correct response of a certain stimulus. It is also responsible for goal setting to activate relevant responses, but not for the carrying out of the responses themselves. Sustained effort is actively maintained by the frontal cortex, together with flexibility in terms of adapting new information, making new combinations and updating changes when relevant. Damage to the frontal cortex can lead to dysfunction of executive functioning,

such as poor decision-making, lack of insight, impulsivity, lack of concern, reduced intellectual functioning (including memory), variable motivation, unconcern for social rules, and perseveration, which means presenting the same response repeatedly without regard for the consequences, including ineffective problem-solving and reasoning (Buchsbaum, 2004).



**Figure 3.11** Rapid, alternating movements such as those used when playing a piano require an intact cerebellum.

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### **3.3.3 The peripheral nervous system**

Although the brain and spinal cord make up the central nervous system, information is fed into and out of the central nervous system by means of peripheral nerves. The peripheral nervous system consists of all the nerves which connect the spinal cord and the brain to the various organs and tissues. These peripheral nerves connect the sensory receptors and motor effectors of the body with the central nervous system. This peripheral network of nerves makes up the peripheral nervous system, which is subdivided into the autonomic and somatic nervous systems.

#### **3.3.3.1 The autonomic nervous system**

The *autonomic nervous system* consist of neurons situated in the head, neck, thorax, abdomen and pelvis and is responsible for the regulation of *visceral organ activities*, amongst which are heart rate, smooth muscle contraction, glandular secretion, gastrointestinal motility and secretion, and urinary bladder emptying. It is regulated by the *sympathetic* and *parasympathetic* nervous systems and can be considered as under involuntary control, as it supplies cardiac and smooth muscle, most exocrine and some endocrine glands (Furness, 2006; Sherwood, 2013). This system is controlled by the hypothalamus, which is, in turn, subject to the limbic system. The autonomic system functions chiefly by reflex, triggering processes of which one need not be aware. Under normal circumstances, the autonomic nervous system operates outside the realm of consciousness. For this reason, one does not have to think in order to control visceral functions as they are under “automatic” control by the autonomic nervous system.



**Figure 3.12** Dominance by the parasympathetic autonomic system, or is this man just bored by his work?

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The autonomic nervous system is subdivided into the *sympathetic* and the *parasympathetic* systems. Most organs are connected to the autonomic system through both these systems. The two systems affect such organs in opposite ways: the sympathetic system activating them and the parasympathetic system inhibiting them. This counteractive effect of the two systems serves to maintain a physiological balance. In emotional crises, such as when a person experiences fear, the sympathetic system triggers activity (for example, an accelerated heartbeat) which causes a physiological imbalance. The parasympathetic system then restores the balance by reducing cardiac activity. The parasympathetic system dominates in relaxed, peaceful situations, encouraging bodily functions required for maintenance, such as digesting and discouraging actions by the sympathetic system like increased heart rate or respiration (Sherwood, 2013).

Balance or equilibrium in bodily organs is maintained by fluctuations in the two subsystems of the autonomic system. This state of equilibrium is called *homeostasis*. Because homeostasis is arrived at reflexively without conscious cerebral intervention, the body automatically adjusts to emotional states. This

homeostatic control enables humans to do other things (such as think, work and play) without constantly having to be on guard to control their bodily processes.

In some people, one of the two autonomic systems is more active than the other. When the sympathetic system predominates, the individual is usually physically tense, and consequently he/she is prone to be easily excitable and emotional, and can have difficulty in concentrating on one subject. When the parasympathetic system dominates, the individual suffers from lassitude, lack of drive and motivation, and poor powers of concentration. However, most people have an autonomic balance with only sporadic bursts of dominance by one system or another. When balanced, such people have a moderate level of tension and therefore are tranquil, calm and able to concentrate.

### **3.3.3.2 The somatic nervous system**

The *somatic nervous system* consists of the axons of motor neurons, which begin in the spinal cord or brain stem and end on skeletal muscle (Sherwood, 2013). It is connected with receptors in the skin, inner tissue, joints and skeletal muscles to bring about movement. The latter are termed *voluntary muscles*, as they are controlled by volition through contact with the central nervous system, which thus controls the operation of the somatic nervous system (for example, to produce changes in posture). Motor neurons are the final common pathway because the only way other sections of the nervous system can have an impact on skeletal muscle activity, is by acting on these neurons (Sherwood, 2013).

Somatic reflexes do not involve the autonomic nervous system. However, even those reflexes that are primarily somatic have an autonomic component. For example, if the skin of an extremity is painfully stimulated, there is a somatic reflex withdrawal of the limb. This withdrawal reflex is accompanied by a rise in blood pressure and heart rate. These events result from autonomic reflexes activated along with somatic reflexes.

## **3.4 THE ENDOCRINE SYSTEM**

The *endocrine system* consists of glands that secrete hormones that are transmitted via the bloodstream to the brain and other parts of the nervous system. Interaction of these systems produces neuroendocrine functions that influence physiological, emotional and cooperative behaviour.

Endocrine glands are the ovaries, testes, adrenals, pancreas, pineal gland, parathyroid, thyroid and pituitary.

The pituitary is called the *master gland*, because it signals other glands to produce hormones. It also produces growth hormones, antidiuretic hormone, prolactin and oxytocin, which causes the uterus to contract during child birth. Physical injury or disease causing irregular functioning of both the pituitary and the hypothalamus, can result in cognitive dysfunction such as amnesia and impaired executive functions, as well as autonomic dysfunction with symptoms of fear, rage, sexual dysfunction, obesity and hypersomnia, that is excessive sleepiness (Erlanger, 2003; Melmed, 2011).

Neuroendocrine functions also affect and are affected by the immune system.

The influence of neuroendocrine functions on the immune system is seen in reactions to stress. Stress can benefit or suppress immunity to disease. This, however, depends on characteristics of the individual, such as genetic predisposition, and childhood experiences that have continued effects later in life. The child acquires styles of coping with stressful events such as family problems, social problems, abuse and rejection, as well as illness, and also learns whether to experience stressful situations positively or negatively (Marketon and Glaser, 2008).

Moderate stress benefits immunity if the individual uses effective coping styles such as optimism, humour and laughter, which result in positive emotions.

Stress suppresses immunity through ineffective coping styles in response to, for example, work stress, unemployment, social relations and imprisonment. If the individual reacts to such factors with negative emotions such as constant anger, hostility or depression, the body becomes more susceptible to disease with the possible development of arthritis, osteoporosis, cancer, diabetes, cardiovascular disease or periodontal diseases (Glaser and Kiecolt-Glaser, 2005).

The influence of the immune system on neuroendocrine functions is seen in the individual's reactions to physical factors such as damage to the brain and muscles, burns, pneumonia or any infections that are large enough to lead to inflammatory conditions in body cells (Marketon and Glaser, 2008). The immune system reacts to inflammation by producing cytokines, chemical substances that send messages to the brain, informing it about inflammatory conditions anywhere in the body. Cytokines thereby trigger neuroendocrine responses that constitute "sickness behaviour" (Chang, Szegedi, O'Connor, Dantzer and Kelley, 2009).

Symptoms of sickness behaviour include any combination of fever, chronic fatigue, decreased concentration, apathy, loss of interest in body care and in sexual and social interaction, irritability, feelings of hopelessness, worthlessness

and depression.

Sometimes sickness behaviour continues after the inflammatory conditions have healed. The person thus stays sick even if he/she is not sick any more. This illustrates the functional interactions of neuroendocrine functions and the immune system. It also shows that disease does not affect only one biological organ or system but the whole person (the mind-body interaction). These interactions have implications in work, such as affecting performance and absenteeism.

The main differences between the nervous system and the endocrine system, are indicated in Table 3.1.

---

**Table 3.1**      The main differences between the nervous system and the endocrine system.

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Property	Nervous system	Endocrine system
Anatomic arrangement	A “wired” system. Specific structural arrangements exists between the neurons and target cells, with a structurally continuous system	A “wireless” system. Endocrine glands are widely dispersed and not related to one another or target cells in terms of structure
Chemical messenger origin	Neurotransmitters released into the synaptic gap	Hormones released into the blood
Action distance of chemical messenger	Short distances (diffused across synaptic gap)	Long distances ( carried by blood)
Type of action on targeted cell	Depends on close anatomic relationship between neurons and target cells	Depends on the specificity of target cell binding and responsiveness to a particular hormone
Response speed	Generally fast (milliseconds)	Generally slow (minutes to hours)
Action duration	Brief (milliseconds)	Long (minutes, days or longer)
Main functions	Coordinates rapid, precise responses	Controls activities that require a long time span rather than speed

## 3.5 THE MUSCLE SYSTEM

The muscle system is also a complex system and in association with the nervous system responsible for most or all of the human physical and neurological functions.

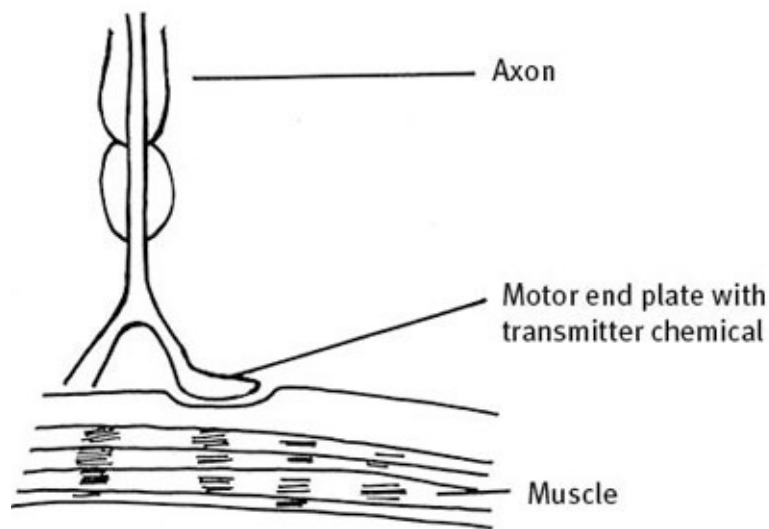
### 3.5.1 The structure and functioning of muscles

Human movement is made possible by a *muscle system* that extends over the whole body. Muscles can be categorised as striated (*skeletal and cardiac muscle*) or unstriated (*smooth muscle*), which is due to the visibility of the dark and light bands or striations (stripes) when viewed under a light microscope. Skeletal muscle is the muscular system itself, whilst cardiac muscle is found only in the heart. Smooth muscle is found in the walls of hollow organs and tubes, as well as blood vessels, airways, the bladder, stomach and intestines and certain reproductive components. Muscles can also be categorised in terms of action, namely *voluntary* (skeletal muscle) and *involuntary* (cardiac and smooth muscle). This categorisation is dependent on the nervous system which controls the muscles. Voluntary muscles are innervated by the somatic nervous system, whilst involuntary muscles are *innervated* by the autonomic nervous system. Skeletal muscle makes up about 40% of body weight in men and 32% in women, whilst smooth and cardiac muscle make up another 10% (Sherwood, 2013).

Each separate muscle consists of a large number of *muscle fibres* which vary between 0,5cm and 14 cm in length, whilst the average diameter of muscle fibre is 0,1mm. A single muscle may contain between 100 000 and 1 million fibres attached to bones by means of sinews. These consist of groups of specialised fibres known as collagen fibres (Karduna, 2012).

Muscles are connected to both motor and sensory nerves. Each muscle fibre is synaptically connected with a branch of a motor nerve axon by means of specialised terminal structures called *motor end plates* (see Figure 3.13). These plates release a chemical transmitter substance that causes the muscle fibres to contract. The number of muscle fibres stimulated (and hence the force and speed of movement) is related to the frequency of motor impulses, but the nature of the contraction is also determined by the type of muscle tissue, its location and its

arrangement. For example, some muscles can contract to half their length, so that the length of a muscle also determines its work potential.



**Figure 3.13** Nerve-muscle synapse.

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The frequency of motor impulses to a muscle depends on reflexes from the spinal cord on the one hand, and nerve activity generated in the brain on the other. Spinal-cord reflexes are also controlled by the RAS. Some of its neurons have long axons extending down the spinal cord to (amongst other things) activate muscles for the physical posture that initiates movement. The brain can grade the frequency of stimuli to muscles so that muscle strength is more or less proportionate to the action to be executed.

Brain centres such as the cerebellum and cortex are informed of the state of the muscle system by sensory nerves connected to the muscle. These nerves convey sensations of the position, force and tension of the muscles which are interpreted by the brain. The brain then transmits motor impulses for the appropriate action to the muscles. Functional connections between the brain and muscles are important in any activity, including talking, walking, running, or rhythmical movement involved in occupations in radio and television, in sport, in entertainment and in music professions that entail playing instruments, singing and dancing.

The energy necessary for muscle contraction comes from the chemical energy reserves stored in the muscle. Muscular work therefore depends on the

conversion of chemical energy into mechanical energy.

Chemical reactions release energy which changes the structure of the protein molecules in the muscle fibres, thereby shortening them. The immediate source of energy is phosphate compounds which, in the course of chemical action, are changed from a high-energy state to a low-energy state. For example, adenosine triphosphate (ATP) is changed to adenosine diphosphate (ADP).

By means of energy, obtained by breaking down and using glucose, the low-energy compounds are converted to high-energy compounds once more. *Glucose* is thus an essential and major source of energy for muscular activity. An important product of glucose oxidation is lactic acid, about four-fifths of which is converted back to glucose and the rest further oxidised to water and carbon dioxide. Oxygen is an essential requirement for the regeneration of glucose and high-energy phosphate compounds. It constitutes a second vital prerequisite for muscular activity.

Glucose and oxygen are stored in muscles in limited quantities only, necessitating constant supplies from the blood. Because of this, blood supply can place restrictions on muscular activity. During strenuous exertion the demand for blood increases ten to 20 times. The mechanisms by which this increased supply is secured are an accelerated heart rate, heightened blood pressure and the dilation of blood vessels.

### **3.5.2 Dynamic and static muscular activity**

A distinction is made between *dynamic* (rhythmic) and *static* (fixed position) muscular activity. Dynamic muscular activity comprises a rhythmic succession of muscular contractions followed by relaxation, whereas static activity requires prolonged spells of contraction.

In everyday life various parts of the body perform diverse static muscular activities. For instance, standing requires continuous contraction of whole groups of muscles in the legs, hips, back and neck to maintain different parts of the body in the desired position. Sending a text message to a friend requires static positioning of the thumb and hand which can cause pain and discomfort (Jonsson, Johnson, Hagberg and Forsman, 2011). Sitting requires no static activities from the legs and as a result imposes less overall muscular strain. A reclining position demands hardly any muscular contraction, which makes it most suitable for resting.

There are certain basic differences between static and dynamic muscular activity. Static exertion causes compression of blood vessels, owing to increased

muscular pressure and consequent decreased blood supply. Dynamic muscular activity, on the other hand, means an increased blood supply, the muscle receiving ten to 20 times more blood than during static muscular activity. Successive contraction and relaxation during dynamic activity ensures regular blood supply during this phase. In this way the muscle is adequately furnished with glucose and oxygen during dynamic activity whilst waste is effectively removed. Intense static contraction cuts off the supply of oxygen and sugar from the blood, with the result that waste products accumulate.

During static muscular activity the blood supply is reduced proportionately to the strength of the contraction. When the contraction reaches 60% of its maximum strength, the blood supply is cut off entirely. At lower intensities some measure of blood is supplied. During static exertion of between 15% and 20% of maximum strength the blood supply is said to be normal. Static effort exerting 50% or more of maximum strength can be maintained for one minute at the utmost, implying that, in job design, exacting static activity should be confined to a minimum.



**Figure 3.14**      Static or dynamic activity?

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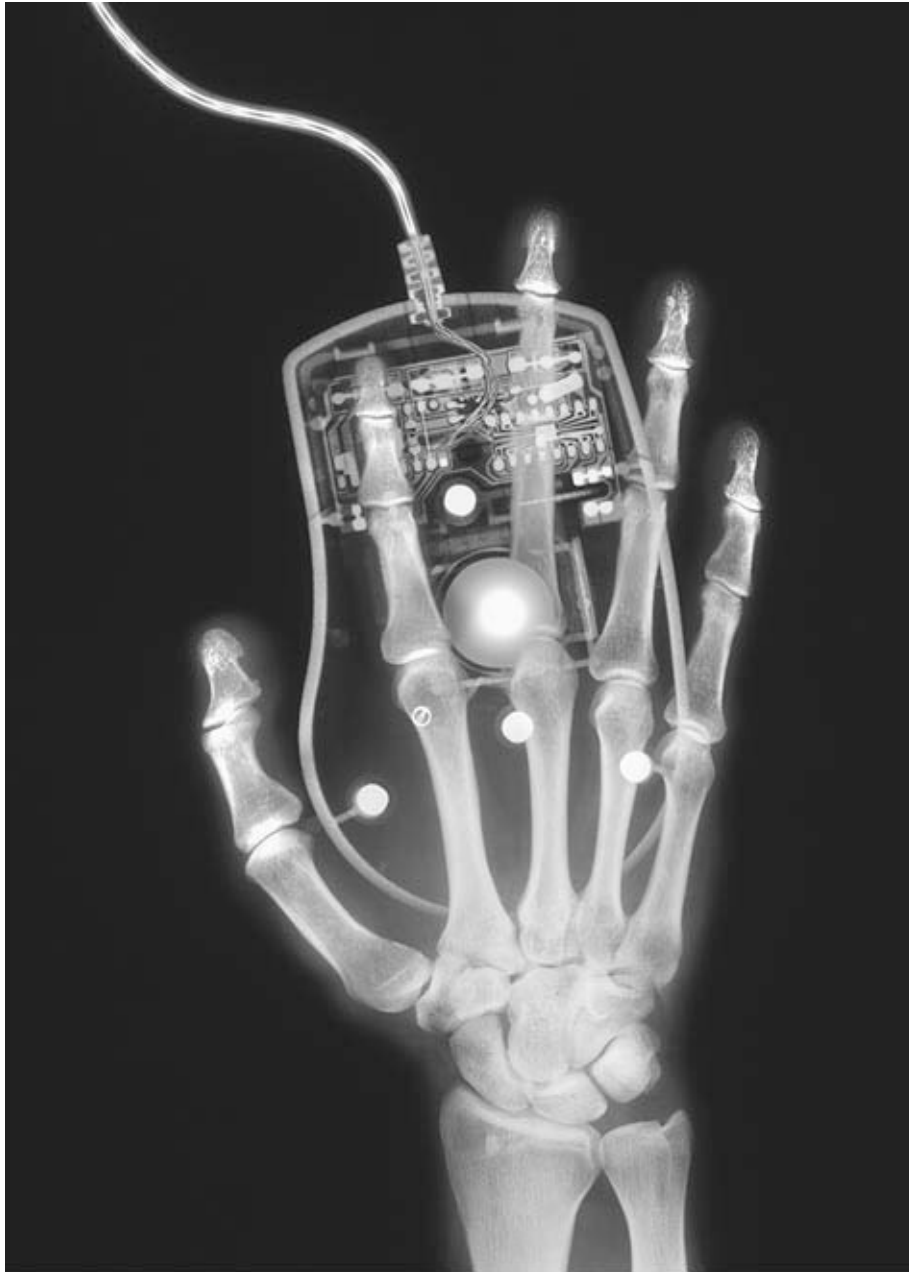
### 3.5.3 Repetitive strain

*Repetitive strain* refers to overuse of certain body elements. These factors play a part in lifting tasks such as when packing objects into containers or onto conveyor belts. Overuse is determined by the weight of the objects and the pace and length of time of repetitive actions, which, if they are excessive, can lead to insufficient oxygen and adenosine triphosphate to sustain a high-energy state (Burt, Crombie, Jin, Wurzelbacher, Ramsey and Deddens, 2011).

Overuse disorders or repetitive-strain injuries often occur in soft connective tissues, particularly to tendons and their sheaths. They may irritate or damage nerves and impede the blood flow through arteries and veins. They are frequent in the hand-wrist-forearm area and in the shoulder and neck. Repetitive loadings may also damage tissues of the spinal system, resulting in lower-back pain.

Amongst the best-known repetitive-strain injuries is the *carpal tunnel syndrome* (CTS). This is a frequently occurring, disabling condition of the hand that can be caused, precipitated or aggravated by light or forceful work activities in the office and on the shop floor, particularly those that include a flexed or hyperextended wrist (Burt, et al., 2011). Certain occupations have been linked to higher incidences of CTS, due to the activities required by the job, such as hand force, repetition, use of vibrating tools and wrist posture (Barcenilla, March, Chen and Sambrook, 2012).

An overuse disorder is the result of excessive use of a body element, often a joint, muscle or tendon. In contrast to a single-event injury, called *acute or traumatic*, the *overuse disorder* stems from sustained efforts, or from often-repeated actions that are not harmful when they occur once or infrequently, but where the time-related cumulative effects finally result in an injury. These effects are usually related to body posture, the motion, the force exerted, and the duration or repetitiveness of the action.



**Figure 3.15** Carpal tunnel syndrome affects people who use a computer mouse frequently.

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### 3.5.4 Working body posture

Standing and sitting are the most frequently adopted *working postures*, but other postures, such as lying down, are also used, for instance in repair work. There are many tasks that oblige people to remain sitting or standing in a fixed position for long periods. Activities such as machining, industrial inspection, dentistry,

driving or just sitting at a desk or computer work station are typical.

The posture adopted by a person is determined by the need to reach controls, to keep the feet on pedals, or to keep the eyes in positions from which the task can be seen. When the task is very dangerous or demanding, as it might be for a pilot or an astronaut, the consequences of making things too difficult for the operator are serious and may be life-threatening for a large number of people. In such cases, great efforts are made to minimise the discomfort and difficulty of reaching for controls and reading displays. In many tasks, however, when the consequences of error are neither as serious nor so obvious, people are often expected to adapt to an awkward working posture, even though this may cause discomfort and difficulty.

The ability of people to adapt to difficult situations, and their willingness to accept the challenge of tasks that are more difficult than they need be, should not blind one to the costs of adaptation. Amongst these costs are injuries and strains from bad working postures, less spare capacity to deal with emergencies, and a greater probability of accidents and errors.

*Musculoskeletal disorders* (MSD) are commonly found in jobs which require workers to remain in awkward positions for long hours, like for example, cleaning jobs, where the worker is either bending to pick up things or working with cleaning tools, which require unnatural positions (Bell and Steele, 2011). MSD can be costly in the workplace, as it often leads to absenteeism, extensive sick leave and early retirement (Samani, Holtermann, Sogaard, Holtermann and Madeleine, 2012).

The work space of the hands depends on body posture and task requirements. Vision requirements at work also determine the working volume. Operation of controls is usually done either with the hands or the feet. Foot operations are stronger but slower, and should be required from seated operators only. Hand operation of controls is faster and weaker but more versatile. Tools and equipment should be designed to properly fit the hand. This requires not only proper sizing of a handle, but also its arrangement, so that the wrist or arm is not brought into straining positions.

Poor body posture can cause permanent damage to body tissues and it should be taken into consideration that workers might not be aware of their own posture due to the fact that their work situation forces them to assume such positions (Helander and Helander, 2005). Employees can subjectively measure their own body posture through questionnaires and by using the body discomfort scale (Corlett and Bishop in Helander and Helander, 2005). However, objective

assessments by analysts, such as the Ovako Working posture Assessment System (OWAS) and Rapid upper limb assessment (RULA) methods, are recommended for proper analysis of the ergonomic implications of a specific job (Corlett in Helander and Helander, 2005).

### **3.5.5 Loss of muscle power**

Reduced or complete loss of muscle power is caused by physiological conditions, disease or injury. Muscle power is measured on a scale of zero (indicating no muscle contraction) to five (indicating full muscle power). Complete loss of muscle power is called *plegia* (paralysis), whilst muscle weakness affecting movement in the limbs is called *paresis* (Kischka, 2003). Depending on job demands, most people can work even with a loss of muscle power. An individual with plegia in the lower body and back, but with an amount of muscle power in the arms, can, for example, be highly effective in seated occupations (such as those involving computers or laboratory research).

Individuals with loss of muscle power owing to amputation can retain coordination of the whole body. Intact parts of partly severed limbs still coordinate with the movements of the rest of the body. Actions of missing parts can also be transferred to other, intact body parts.

However, individuals with amputated body parts may experience phantom sensations, such as a feeling of pain in the missing body part. Massage of the body may also be experienced as a massage of a missing limb. The intensity of the phantom sensations becomes more vivid if the individual imagines performing tasks with the missing part, but the phantoms may disappear over time (Semenza, 2003).

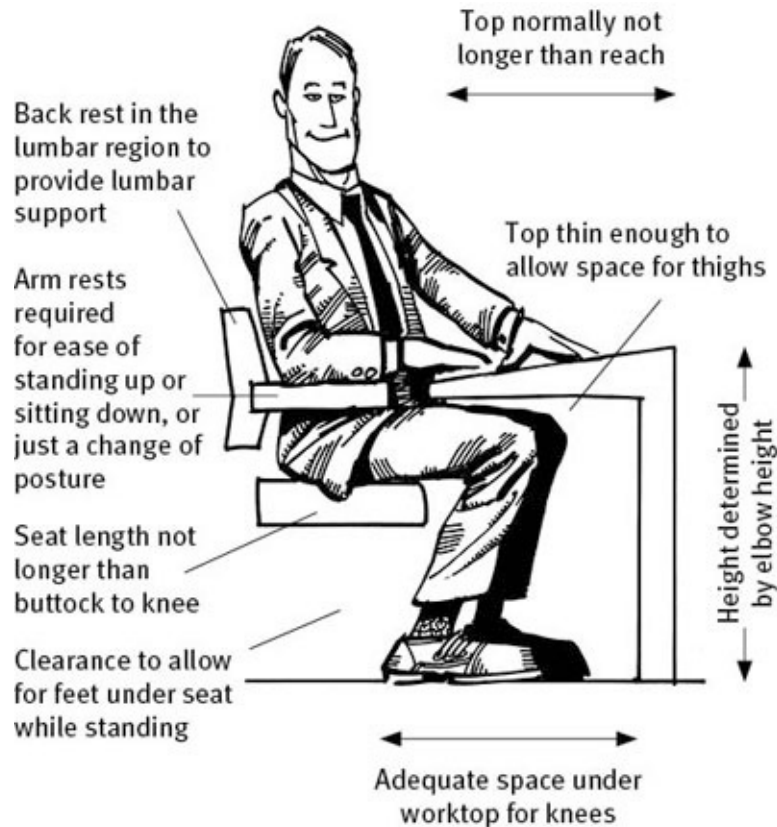
### **3.5.6 The design of work stations**

The various aspects of the muscle system are all implicated in work design. The following ergonomic recommendations should contribute to the proper design of work stations (see Figure 3.16).

The work area should be adapted to the user as follows:

- The height of the work surface should be adapted to the body dimensions of the user and the work performed.
- The seating arrangement should be adjusted to the individual.
- Adequate space should be provided for body movements and access to the work station.
- Controls should be within easy reach.

- Grips and handles should fit the hand of the user.



**Figure 3.16** Attributes of a work station.

The work should be adapted to the user as follows:

- Unnecessary strain should be avoided.
- Strength requirements should be within desirable limits.
- Body movements should follow natural rhythms.
- Posture, strength and movement should be harmonised.
- Particular attention should be paid to:
  - alternating sitting and standing postures
  - choosing sitting postures (if one position must be chosen)
  - keeping the chain of force vectors through the body short and simple
  - allowing suitable body posture and providing appropriate support
  - providing auxiliary energy if strength demands are excessive
  - avoiding immobility, preferring motions.

In job design it is essential to allow the worker to modify aspects of the work

station to fit his/her capacities. Recent research is moving towards investigating the role of gender in work design, in order to create interventions which cater specifically for the differences between male and female workers in terms of ergonomic requirements (Habib and Messing, 2012; Salerno, Livigni, Magrini and Talamanca, 2012).

### **3.6 SUMMARY AND CONCLUSION**

In this chapter the basic factors and processes that determine the biological foundations of human development and behaviour were explored. The complex biological interactions that enable one to understand human behaviour were also discussed. It is important to understand the relations between psychological, biological and environmental processes when designing tasks, jobs, equipment and work environments. This allows one to ensure the safety, comfort and effectiveness of individuals, groups and organisations.

### **3.7 ASSESSMENT ACTIVITIES**

#### **Multiple-choice questions**

1. Meiosis \_\_\_\_\_.
  - a) keeps nucleotide bonds constant
  - b) causes organisms to grow
  - c) contributes to the duplication of the number of chromosomes in daughter cells
  - d) occurs in all cells in the body
  - e) effects changes in DNA composition.
2. Which equivalent is correct for genotype: phenotype?
  - a) homozygotic: heterozygotic
  - b) recessive: dominant
  - c) genetic: appearance
  - d) prenatal: postnatal
  - e) sex-linked: temperament.
3. Which area of the brain controls unconscious activities of various organs like the heart, lungs, digestive tract and excretory system?
  - a) reticular activating system
  - b) hypothalamus
  - c) cerebral cortex

- d) frontal cortex
  - e) occipital cortex.
4. Individuals who readily become emotional and excited possibly have \_\_\_\_.
- a) a dominant parasympathetic system
  - b) a dominant sympathetic system
  - c) an underactive thyroid gland
  - d) an underactive pituitary gland
  - e) excess testosterone.
5. A gardener complains about constant back pain. The problem most probably lies with \_\_\_\_.
- a) the size of his work station
  - b) an accumulation of waste products in his blood
  - c) the type of tools he is using to remove weeds
  - d) the body posture he assumes whilst removing weeds
  - e) the loss of muscle power.

### **Answers to multiple-choice questions**

1 = e; 2 = c; 3 = b; 4 = b; 5 = d

## **Issues for discussion and practice**

1. Explain how the functions of the nervous system are interrelated.
2. Two managers have very different thinking styles – one is analytical, whilst the other prefers a more creative approach. Describe the role of the two hemispheres of the brain in terms of the differences in thinking styles.
3. The processing of information is a vital function in problem-solving. Discuss the role of the frontal cortex in this function.
4. From an ergonomics perspective, evaluate the workplace of a factory worker who stands all day and sorts fresh produce on a conveyor belt which is at knee level. Recommend improvements.
5. Observe at least three blood relatives, try to identify the reasons which can be attributed to the differences between them.

## CASE STUDY

### **The biology of thinking and problem-solving**

You are an I-O psychologist specialising in organisational behaviour. You have been approached by a furniture company to present a workshop to their managers on how to solve problems and make decisions. You know that for effective problem analysis managers should be able to think analytically, and that for problem-solving they should have a fair amount of creativity. A week before you start the workshop, you request the managers to complete a test (in the form of a questionnaire) that determines the extent to which each of them thinks analytically and creatively. The summative results of the test are shared with the managers. One of the managers whose results showed a very strong tendency towards creativity rather than analytical thinking remarks: "Blame it on my parents; my mother is an art teacher and my father designs web sites. I must have got it from them."

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1. Referring to the two hemispheres of the brain, explain the difference between the thinking styles (analytical versus creative) of the managers?
2. The processing of information is a vital function in problem-solving. How does the frontal cortex assist in this function?
3. Is the ability to think creatively and logically purely the result of biological processes and heredity as the one manager suggested?

## **CHAPTER 4**

# **Human development across the lifespan**

*Ziel Bergh*

## 4.1

## [Introduction](#)

## 4.2

## Some characteristics and controversies of human development

## 4.3

## Determinants of human development

## 4.4

## Domains of human development

**4.5**

## Stages of human development across the lifespan

## 4.6

## Career transitions and tasks

**4.7**

## Summary and conclusion

**4.8**

## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- describe the field of study in human development
- indicate the general characteristics of human development
- explain the domains of human development in the various stages
- demonstrate an understanding of how genetic and environmental factors influence human development
- indicate how critical periods influence human development during childhood and across the lifespan
- explain the consequences with regard to how developmental conflicts are solved
- explain career-development stages and related developmental tasks
- explain ways to evaluate the successes of lifespan development.

## 4.1 INTRODUCTION

Try to imagine the following social family gathering in a South African home: grandparents spoiling their grandchildren, giving adolescents and young adults advice on how to develop their lives, and talking about their own youth; parents worrying about the economy, crime, employment and politics, how hard they have to work to pay for their bonds and their children's study fees, and to prepare for retirement; a couple of university students wondering about the final examinations, career choices, problems in obtaining a job, and their planned engagement in six months' time; a married couple talking about their expected promotions in their jobs, whilst their three children (a baby boy, a daughter at primary school and a son of 14) are busy on their cell phones, watching DVDs and listening to noisy music, the latter to the dismay of most of the adults.

This scenario surely illustrates the many phases in human development and behaviour, and the related tasks, expectations, needs, differences and influencing factors. Broadly speaking, human development is about all the age-related changes (growth and decline) in various domains of personality, behaviour and life that happen from conception to old age and death (Weiten, 2011; Cavanaugh and Blanchard-Fields, 2006).

Knowledge of human development has many advantages of which the following are important:

- Development results in a repertoire of competencies (knowledge, abilities, skills, behaviours, attitudes and values) needed for life roles.
- Development studies enable people to determine schedules and norms showing what to expect of people, when and how certain types of physical, cognitive and psychological behaviours are supposed to occur, and how to act accordingly.
- Development provides continuity and identity in people's ways of life and behaviour (for example, with respect to family ties, cultural habits and values, interpersonal styles and attachment behaviours, types of jobs and socioeconomic standards.)
- The study of development provides descriptions of change and continuity in behaviour, and explanations of the causes and influences in human development.

Developmental psychology emphasises the importance of development on child and adult psychological adjustment and health. This is supported by a DSM classification of childhood disorders or developmental psychopathology and the inclusion of developmental problems as causes in adult psychopathology in diagnostic systems (American Psychological Association, 2000; Nevid et al., 2008). The causes and manifestation of psychological-adjustment and performance problems in the workplace can also be related to career development and unresolved issues in general (Lowman, 1993; Sperry, 1996; Cavanaugh and Blanchard-Fields, 2006; Schreuder and Coetzee, 2006).

New knowledge of human development encourages scientists and practitioners to critically rethink ideas about human development in general. For example: Human development in underdeveloped contexts and disadvantaged groups and the role of related influences on peoples' ability to develop their personalities, skills and life circumstances (Painter and Terre Blance, 2004; Hook, 2004). The relevance of existing development theory, concepts, assumptions and related methodologies in changing times must always be a continuous concern for psychologists, practitioners and researchers.

Parents, educators, therapists, career counsellors, HR specialists and other practitioners in the work context draw on developmental psychology to influence and facilitate people's lives, work values, work competencies and other productive orientations.

As far as the work context and general development are concerned, individual

employees need to develop and self-manage their own careers as best as they can in the midst of continuing changes, demands and requirements at work and in society. An understanding of career development is advantageous for both the individual and the organisation in order to manage and facilitate individual differences, the requirements of gender roles, and the possible conflicts between work and non-work roles (Greenhaus, Callanan and Godschalk, 2000).

Many psychologists perform some form of developmental counselling in organisations, and such competencies are mostly incorporated in academic and professional training programmes for psychologists.

The *aim* of this chapter is to introduce the reader to the nature of human development in general, and to the way it affects career development across the lifespan.

### **Milestones in developmental psychology in the twentieth century**

According to Weinert and Weinert (1998), four scientific studies are milestones in developmental psychology in the twentieth century, particularly in the way these concepts explain the influence of early childhood development on adult behaviour, and the influence they have had on research and theory in developmental psychology:

- Jean Piaget postulated the principle of self-regulation in human cognitive development. He stated that a child's cognitive development and knowledge structures adapt (through assimilation and accommodation) to the demands of the environment.
- Lev Vygotsky pioneered the concept of social learning in human development. He observed that children learn through interaction with other people, after which the behaviour is internalised.
- John Bowlby and Mary Ainsworth contributed greatly to the understanding of socio-emotional development in personality and self-concept through their emphasis on the early experiences of attachment behaviours (bonding) in the mother-child relationship.
- Many scientists emphasise lifespan development from birth to death. These approaches are mostly integrative and incorporate ideas from all the developmental models, such as Paul Baltes's (1987) three-factor model which describes many influences or

contextual factors on human development (see Section 4.3.2).

#### 4.1.1 The general nature of human development

The nature and characteristics of human development include assumptions from various theories and models, and also developmental research. From general psychology there are a number of perspectives and theories that can be used to understand human development, examples being the theory of evolution, psychosexual theory, cognitive-development theory, learning theory, cultural theory, social-role theory and systems theory.

In the Growth Model, genetically programmed and continuous changes and increases in motor, sensory and intellectual powers are emphasised. In the Stage Model, development in the same functions is emphasised, but particularly during specific life stages. In the Differentiation Model, the change from initial simple, holistic and diffuse behaviour patterns to more complex, integrated and organised behaviour patterns (for example, in language, thinking and motor skills) is stressed. According to the Funnel and Canalisation Developmental Models, people's behaviour changes from showing very broad patterns during infancy to more fixed and socially accepted patterns during the adult years. According to the humanistic models, it is assumed that from an early age people are active in and in control of directing their own development and are not controlled by unconscious urges and age or phase restrictions (Newman and Newman, 1999; Weinert and Weinert, 1998).

Contemporary developmental psychology includes aspects of many perspectives, which culminate in the lifespan approach and which emphasise the complexity of human development. *Lifespan development* involves both growth and decline, human capacities may change and improve, even in late life, human development is influenced by historical events and the opportunities which people are afforded in their lifetimes, and many factors, biological, environmental, sociocultural and life cycles, influence human development (Cavanaugh and Blanchard-Fields, 2006; Morris and Maisto, 2010).

The study of human development incorporates *age-related stages*, but also the *continuous changes*, that is, *progression or growth and decline* from a person's conception to death, influenced by many genetic and psychosocial factors (Baltes, Lindenberger and Staudinger, 1998; Cavanaugh and Blanchard-Fields, 2006; Weiten, 2011). Human development is about maturation, growth and decline in a person's physical and biological characteristics, their thought

processes, and their social, emotional, moral and productive behaviours. It also involves transitions during the total lifespan in which the individual, at every stage, must reach a certain level of maturity in order to socialise and fulfil various life roles, such as in childhood, education, love and marriage, friendships, work, parenting, religion, recreation and society.

In the work context, progressive development and change in various types of behaviours and competencies are at the heart of processes such as academic study and work-related training and learning, selection and promotion of employees, as well as career choices and transitions during different life stages (Greenhaus, Callanan and Godschalk, 2000; Schreuder and Coetzee, 2011). In contemporary societies, human development should also include acquiring the attitudes, values and behaviours that individuals need in order to cope effectively with and to adjust to fast and continuous changes in their social and work life (for example, to help improve employment relations and to be more self-efficient and entrepreneurial in career choices).

Though scientific research has established many general or shared patterns in human development, each person's development is also a unique and distinctive story of life and living, influenced by predetermined biological factors, but also by psychosocial factors of which culture and ethnicity are very important influences. Lifespan development should also be concerned with differences and regularities in and between individuals and groups with regard to certain influences and adaptive processes (Hook et al., 2004. Morris and Maisto, 2010). Development of people also takes place within the opportunities and constraints of the historical context and culture in which people exist.

A number of terms or concepts qualify the broader concept of human development, the following being a few of these. Changes resulting from genetic or biologically based factors are termed *maturation*. These biologically-based changes are inborn and "pre-planned", and occur more or less in sequence (for example, communicate in single words before talking in sentences or crawl before walk) at certain stages and ages, but can be hindered by factors such as poor nutrition, illness and other forms of deprivation.

*Ageing* refers to a chronological increase in years and biological and physical change. Ageing may result in a decline of functions, but may also relate to improvement in some functions. *Growth* may refer to increases in the physical size of biological structures, but also to improvement in mental and psychosocial competencies.

*Maturity* refers to the integration of physical, cognitive, social and

psychological (emotional) tasks at a level where a person can function or live as a fully functioning person at every stage. People may be defined as mature if they show “physical and social independence and autonomy, independent decision-making and some degree of stability, wisdom, reliability, integrity and compassion” (Craig, 1996:474). Maturity may apply to various stages of life or to specific aspects of human functioning. For example, it is said that sexual maturity occurs during puberty or early adolescence, school readiness occurs at a stage when children are sufficiently developed to attend school (at about seven years), and career maturity occurs when a person is ready to behave independently and responsibly in the work context and to execute responsible occupational choices. However, maturity may be defined in many ways and has many cultural nuances. A clear demarcation in time is not a simple matter, but maturity is often coupled to being an adult (about 18 to 21 years and older).

“*Readiness*” may refer to a point in development where the individual has matured sufficiently to benefit from learning or experiences so as to, for example, be ready to enter school or a profession, be promoted and so on.

## **4.2 SOME CHARACTERISTICS AND CONTROVERSIES OF HUMAN DEVELOPMENT**

The processes of development can be explained by identifying some of the characteristics of development, which incorporate elements of both maturation (genetics) and learning (environment). Some of these characteristics also represent continuous controversies in developmental psychology (Cavanaugh and Blanchard-Fields, 2006), some of which will be dealt with in this chapter.

### **4.2.1 The hierarchical evolution of phases or stages**

On the question of how development takes place across time, theorists can primarily be divided into three types – development as a continuous, steady and gradual process; or characterised by sequential stages; or a combination of both continuous development and sequential stages. We believe that human development is a progressive process across the life cycle characterised by certain more or less age-related, but interdependent phases. The progressive phases of development may occur similarly in all people with regard to certain aspects, but much variation with regard to the quantity and quality of development will be evident amongst and between people.

Many developmental theories agree on certain life and career stages, each

marked by qualitative differences in behaviour (Newman and Newman, 1999; Greenhaus, Callanan and Godschalk, 2000; Cavanaugh and Blanchard-Fields, 2006; Weiten, 2011). Although more specific stages can be distinguished, the following overlapping main stages are usually distinguished:

- the *early-life stage*, from infancy through childhood to adolescence, also involving occupational choice and preparation (from birth to about 22 years)
- the *young-adult stage*, also involving entry into and establishment in a career (from about 22 to 45 years)
- the *middle-adulthood stage* also involving career consolidation, maintenance and change (from about 45 to 60 years)
- the *late-adulthood stage* (from 60 years until death), also involving career decline and retirement.

Adult occupational life concerns the last three stages, but the importance of the formative early-life stage cannot be ignored as many events and behaviours during these stages will influence adult behaviour.

The progression or evolution of phases is predetermined by the maturation of biological systems, such as the central nervous system. Gesell (in Craig, 1996) asserts that under normal conditions behaviours evolve in orderly and predictable sequences. In other words, certain physical, cognitive and psychological behaviours emerge at certain ages and stages. In contrast to the new-born baby, whose behaviour is largely reflexive, the developing child acquires greater control over his/her behaviour and becomes increasingly susceptible to the host of environmental influences as the higher cortical brain centres develop.

Skeletal growth also produces changes in shape, size and weight. An imbalance between physical and emotional maturation causes problems of adjustment. Thus adolescents may suffer mental stress because they are sexually mature, yet emotionally still children, unable to handle the demands of socio-sexual adaptation. Amongst many teenagers and women, physical appearance or body image constitutes a major norm for acceptance by the group (Newman and Newman, 1999). Youngsters and women who are retarded in their physical development and differ conspicuously from their peers may give vent to antisocial behaviour, avoid group activities (appearance anxiety) as a defence against possible rejection, or behave aggressively to compensate for feelings of inferiority. A child whose relatively early physical maturity is accompanied by healthy emotional maturation may develop qualities of self-control and responsibility that could culminate in leadership attributes during adult life.

Phases or stages of development are, however, not discrete, separable entities. Each phase emanates from preceding ones and is inextricably linked with the next. In later phases certain elements of early behaviour are either eliminated as ineffectual or transformed into higher patterns of adaptation. Hence psychologists speak of evolution from elementary to higher behaviour, which is accompanied by an evolution of various behavioural elements.

There are different orders or rates of development for different types of behaviours. The development of structure, for example, primarily precipitates function. An infant is unable to talk until the relevant neurological speech centres have matured, yet is able to understand language before it has mastered it as a means of communication. Speech development progresses relatively slowly compared with control over body movements such as walking. Once the infant has learned to speak, its orientation is more cognitive, and motor development slows down.

The same may hold for evolution of career-decision tasks; people may experience career indecision because certain tasks have not developed in earlier phases. In recent times, owing to changes in labour markets and work ethics, strict adherence to the stage idea has been questioned. For instance, people now have to create their own vocations, more so than in the past, or youths are forced both to study and to be dependent on parents for longer periods.

The years up to puberty constitute a relatively long period of parental dependence, which continues to influence the individual's adjustment after reaching adulthood. Thus some adults fail to develop healthy, self-managing independence, remaining relatively dependent on real or symbolic authority figures to control their actions. The impact of negative youthful experience is evident from research on many personality disorders, such as sociopath (sociopaths' behaviour deviates from social and moral norms) and certain anxiety and childhood disorders. Research shows, for example, that, despite attempts to eradicate antisocial behaviour through psychotherapy, these trends still surface under stress, because the roots of such behaviour in early childhood cannot be entirely removed (Nevid, Rathus and Greene, 2008). It is also generally accepted that the differences in work ethic between people, for example attitudes about work and working, will result from how such work values and attitudes have been learned from parents and other important models.



**Figure 4.1** The cycles of life.

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### 4.2.2 Differentiation from the general to the particular

At birth the cortex is still poorly developed and behaviour follows mainly reflexive, motor-sensory patterns. Babies respond to diverse physical and emotional stimuli in rather general ways, such as with undirected and diffuse physical movement with the whole body, and general excitement. Gradually a baby's responses become recognisable as particular gestures or emotions. By three or four months any human action will occasion a smile, but by six months the baby is able to discriminate and its smiles are reserved mainly for its mother or caregiver. Initially any unfamiliar stimulus or stranger provokes fear, but eventually, when the baby has increased powers of discrimination, fear is prompted only by particular people, objects or situations.

Cortical maturation gives rise to greater selectivity with regard to effective behaviour in situations demanding choice. Problem-solving skills develop from being able to deal with very concrete problems to being able to deal with more abstract problems. Problem-solving skills also become evaluative, allowing diverse thinking and the recognition of relationships between things.

### 4.2.3 Increased complexity

At birth motor neurons are mainly small, with long axons transmitting impulses at low speed, evoking only diffuse general responses. With age, the development of an insulating myelin layer around the axons of some neurons causes speedier and more continuous transmission of impulses, and hence more complex behaviour.

The complexity and quality of motor development is also reflected in more intelligent behaviour. The progressive development of abilities for association, complex thought, reasoning and language enables people to learn and internalise knowledge from their culture. Through learning and maturation a baby's cooing communication with his *her mother becomes linguistic communication with the world, just as his* primitive biting and sucking reflexes change to the traditional eating habits of his/her culture.

Infants' first emotional bonds with their mothers form the basis of their subsequent emotional ties (attachment behaviours) with other children and other adults, as in friendship and love, relationships with co-workers and superiors, and with cultural groups. The variety of behaviour codes with regard to marriage, for example, indicates the complexity of socialisation in modern human beings. More and more, babies' largely physiological needs are supplemented and changed by social needs of ego and self-actualisation until, by the time they become adults, all these needs are integrated and expressed in balanced ways.

Increased complexity and sophistication are also evident in other physical and psychosocial functions as a result of maturation and learning. For example, the secretion of certain hormones, as well as social norms, allow for sexual interest, stimulation and ways to express these urges. Deficiencies in certain hormones, for example thyroxine (which is secreted by the thyroid gland), result in hypothyroidism, a condition of general underdevelopment in physical, cognitive and emotional attributes.



**Figure 4.2** Adults mostly think more abstract and complex than young children.

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#### **4.2.4 Predictability**

As a rule, most individuals follow a recognisable, similar pattern of

development. This is one of the advantages of the stage theories, which allow one to more or less determine norms or time schedules and what to expect from people at different ages and transitions. Such predictability applies not merely to simple responses to a single stimulus, but also to successive patterns of diverse behaviours. Behaviour is to some extent predictable, because its development is partly automatic, irrespective of the limitations of learning. In this regard automatic physiological functions are important for the survival of the individual and the species. As far as the individual is concerned, it is necessary to know when the person is ready for both formal and informal learning and for emotional experience.

General forms of behaviour provide criteria for normality whereby individuals can be assessed. The average infant starts walking at 14 months, and “retarded” ones between 30 and 80 months. Bright infants start talking at 11 months, average ones at 16 months and retarded children at between 30 and 80 months. Here development is seen mainly as a function of maturation, but environment is always a consideration (Craig, 1996; Demetriou, Doise and Van Lieshout, 1998; Weiten, 2011).

Motor development can be retarded by both physical factors (such as illness and disability) and emotional factors (such as emotional overprotection and deprivation). In a study of children in institutions and in dysfunctional families, it was found that although their motor development at two months was normal, by the end of the first year they became progressively retarded. However, between the ages of four and six their motor behaviour once more corresponded to the norm. Early motor retardation was attributable to restricted stimulation and experience, but with maturation they eventually improved. In another study it was found that twin girls, who at the age of 2 months were placed in a restricted environment without social interaction or maternal nurture but with good physical care, at 13 months differed in no way, either emotionally or cognitively, compared to children who had received all the necessary positive stimulation. It seems as if maturation was an automatic process (Kennedy, 1971; Craig, 1996).

Research suggests that the correlation of physical traits with mental and intellectual traits is also predictable. Cognitive development primarily occurs between birth and the age of 18 years whilst the body is growing. Contemporary research cited in Demetriou, Doise and Van Lieshout (1998) also indicates that with regard to perceptual and motor development, infants and children are much more competent in observing their environments than had been assumed

previously, because they are able to store and recall information from an early age.

#### **4.2.5 Early experience and development: Sensitive periods**

Various theories emphasise the positive or negative forming influence of early childhood experiences for human development in later stages, and especially during certain periods of special sensitivity (Erikson and Erikson, 1997; Capps, 2008; Morris and Maisto, 2010).

A *critical period* refers to a certain critical or sensitive point in time when particular factors or types of learning will or can have positive or negative effects which may influence or shape future development. Periods of sensitivity to environmental change which occur early in life are of limited duration, and are therefore very important. Various sensitive periods may also not necessarily influence each other, or events in an early period may not affect the individual until much later. For instance, the mother-infant relationship may not impact on learning behaviour, but only impact on emotional relationships at a later stage.

Some research indicate that certain influences, for example, a lack of parental love, abuse and deprivation in the early (for example, first five) years of life may negatively effect a person's development. In contrast, other research, indicates that improved influences and opportunities after periods of deprivation in the early years may well correct possible problems in development ((in Kowalski and Westen, 2011). For this reason in contemporary psychology, some authors prefer the concept of *sensitive periods*, which refer to periods of greater susceptibility to possible influences, however, influences during sensitive periods may not necessarily be decisive (Bateson and Hinde, 1987; Pervin, 1997; Keller, 2000).

In contrast to critical or sensitive events, *optimal periods* refer to experiences when maturation and learning are responsible for successful development, or the points at which people will be sufficiently mature to benefit from certain experiences. In this regard it is very important how certain psychological crises during early development are resolved.

The meaning of sensitive periods is to indicate that if an individual fails to encounter certain experiences that are part of normal development for his/her group, or undergoes an unusual experience, this may give rise to problems at a later stage and appropriate behaviours may not develop as expected. Problems during critical or sensitive periods in childhood do not mean that early experience is irrevocably embedded in the personality. Later experiences may be

equally influential, or even more so, and a harmful early experience may be neutralised by a subsequent positive experience.

#### **4.2.6 Stability versus change in development**

Some aspects of psychological and biological growth are fairly stable as regards environmental influence, being little affected by external variation, whilst others may be more sensitive to environmental factors. Biological or genetic factors cause a predisposition that makes the organism receptive to particular types of stimulation at a specific age. Given this stimulation, new forms of behaviour arise, but without it the organism will only acquire such behaviour with great difficulty, if at all.

Huxley's concept of *psychosocial evolution* (in Newman and Newman, 1999), as well as research findings, suggest that patterns of behaviour may be transferred across generations within a family through the various processes of social learning (Derlega, Winstead and Jones, 1991). With regard to lifelong development and the consistency of personality development, Cervone and Pervin (2008) and Mayer (2007) summarise research findings that indicate sufficient evidence of consistency and coherence. However, owing to many influencing and moderating factors on human development and developmental research, difficulties exist in the ability of scientific psychology to accurately predict how people's lives will develop.

This question, whether genetic or native factors (nature) or environmental learning (nurture) influences human development most, is arguably the most controversial issues amongst developmental psychologists (Hook, Watts and Cockcroft, 2002; Morris and Maisto, 2010; Weiten, 2011). This issue is discussed in more detail in the following sections.

### **4.3 DETERMINANTS OF HUMAN DEVELOPMENT**

In previous sections, developmental influences are mentioned, and are mostly classified as genetic or inherited influences (nature), and learning or experience as a result of various environmental influences (nurture), two issues that are still at the heart of much controversy and debate (Keller, 2000; Pulkkinen, 2000; Cervone and Pervin, 2008). However, in contemporary psychology it is widely accepted that, though each factor may have a dominant influence in certain areas, human development is the product of the interaction between genetic potential and social learning. The quality of social learning and environmental

circumstances might determine how the genetic potential and characteristics will manifest themselves.

#### **4.3.1 Hereditary and evolutionary determination**

Many human similarities and unique behaviours are influenced by our inborn or genetic inheritance. Bio-psychological, sociobiological, ecological and evolutionary psychological approaches in psychology emphasise the role of biology or genetics in human development (Corballis and Lea, 2000; Weiten, 2011).

Maturation owing to genetic potential is a predetermined series of biological and related processes that occur as the individual grows physically and increases in age, without environmental and even illness and nutrition factors having a marked influence on the natural course of events. Absolute favourable environmental factors, such as physical health, nutrition and psychosocial conditions, do not necessarily increase the tempo of maturation, but problems in these factors may hamper maturation. Genetic determination has a more dominant influence on the physical domains of behaviour, such as the rate of physical growth and ageing, muscles, glands, the brain and brain activity, the nervous system and sense organs, the development of motor skills and even the manifestation or potential manifestation of physical diseases and development of psychological disorders (in Demetriou, Doise and Van Lieshout, 1998; Newman and Newman, 1999; Nevid et al., 2008).

Although some put the extent of genetic dominance in, for example, intelligence higher or lower, a consensus estimate of authorities in this field is about 60% (Snyderman and Rothman, 1987). Some also believe that the level of intelligence and specific talents, such as music, are the result of genetics. Behaviour patterns in humans, such as language acquisition, mating, affiliation and nurturing, dominance, aggression and territoriality, have biological elements, in addition to learning or cultural influences. Personality factors and psychological and physical disease patterns are also increasingly connected (Friedman and Booth-Kewley, 1987; Eysenck, 1991a; Nevid, et al., 2008).

Biological perspectives are also related to ethnology, where studies on animal behaviour often finds commonalities with human behaviour. The idea of human behaviour being instinctive like that of animals found much opposition, however some research by evolutionary psychologists indicate that at least some physical, cognitive and psychosocial behaviours in people are structured by natural selection as a result of adaptation to environments and situations throughout

human history. Early researchers in pioneering studies, such as Konrad Lorenz and Harry Harlow (cited in Craig, 1996; Kowalski and Westen, 2011), found similar types of attachment behaviours in humans and monkeys. Genetic and biological evolutionary influences on psychological and social behaviour are connected to attachment behaviours, aspects of perception, female subordination, polygamy, homosexuality and altruistic behaviours, mostly because of natural selection or “survival of the fittest” and traditional roles adjusting to changing environmental demands (Gray, 1994; Newman and Newman, 1999).

Related to biological factors are various physical factors in the environment, which include nutrition, toxic chemical substances in the air, medicine, radiation, sound and pollution. These factors may influence people’s growth and health directly, and may even influence body cells and, in serious cases, the genetic make-up of a person, causing mutations and severe immune deficiencies similar to those found in people suffering from Aids.

#### **4.3.2 The interaction between person and environment**

The interaction between genetics and environmental learning has already been suggested in this chapter and is supported by many theoretical approaches and extensive family, twin and adoption studies (Newman and Newman, 1999; Weiten, 2011). The impact of genetic or *biological factors* or environmental influences may in some instances have a dominant influence in human development. However, an accepted opinion now is that both determinants separately and jointly have important roles (Plomin, 2004; Rutter, 2007). Environmental influences will influence how the genetic potential is realised, whilst genetic attributes have a definite impact on the maturation and manifestation of certain behaviours and how people behave and cope in their environments (Hook et al., 2002; Morris and Maisto, 2010). With regard to the latter, it has been shown that evolutionary changes across time in biological, cognitive, psychological and social behaviours also contribute to peoples development and adaptation to their environments (Weiten, 2011)

*Psychosocial determinants* refer to all psychological, social and cultural factors that influence human learning and behaviour throughout life. These acquired behaviours contribute to a person’s social adjustment and his/her self-concept as a member of society. All domains of human development are heavily influenced by social and cultural experiences. People develop and acquire certain behaviours because they practise or experience such behaviours

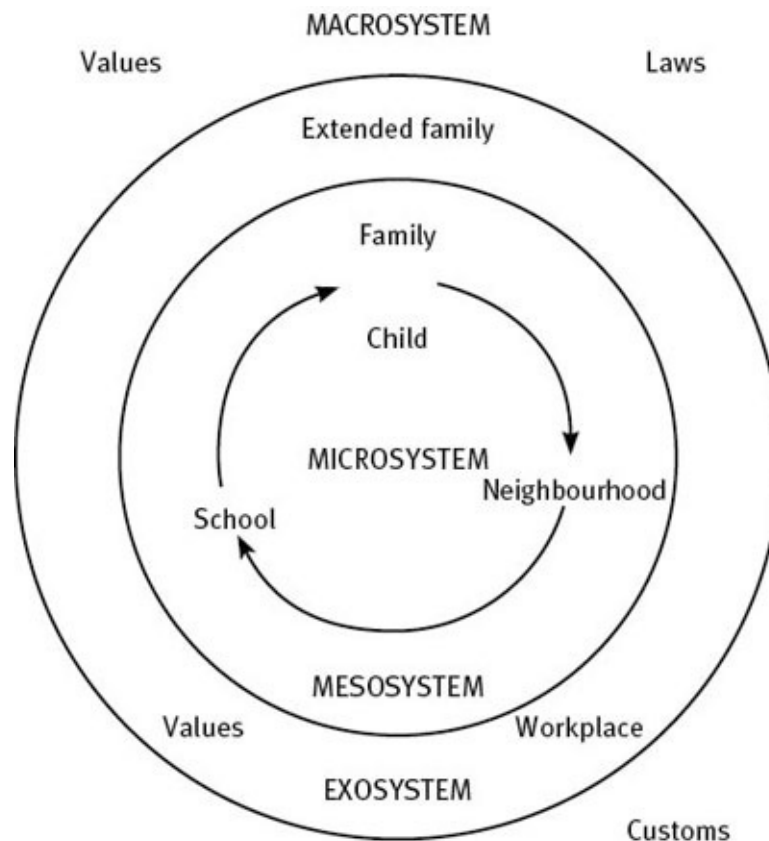
repeatedly. Such behaviours are moulded into lasting behaviour patterns by various methods of learning and by way of imitation and modelling of exemplary or poor behaviours, and the learning and development of cognitive competencies, expectancies and values that direct adaptive behaviours.

Strong influences come from culture and ethnicity, and these are exerted in family context, at school and with peer groups, in occupational experiences, and in the broader social environment. Culture and ethnicity are prominent influences because they provide social settings, living conditions, status and personal experiences for people over the lifespan (Cavanaugh and Blanchard-Field, 2006; Hook et al., 2004). Culture and ethnicity are linked to biological forces through family lineage, and they shape people's identities, worldviews, core beliefs, attitudes, values and even false perceptions and prejudices about life and others. Understanding developments with regard to people's culture and ethnicity is to have insight into the *context of personality or development*, rather than simply to describe the traits or attributes or various developmental stages (Shoda, Cervone and Downey, 2007). People's capacities and personal concerns will change as a result of transitions within a certain sociocultural context. (Hooker, 2002; Hooker and McAdams, 2003).

All these determinants are the building blocks for an individual's behaviours, feelings, attitudes, values, thoughts and actions in different life roles. In a South African study on heterosexual behaviours, utilising discourse analysis, Shefer, Strebel and Foster (2000) found a strong relationship between heterosexual relationships and violence, power and inequality. It is clear that social learning creates the cognitive and behavioural patterns for violence and inequalities that often occur in heterosexual relationships. Similar studies in South Africa were executed by Duncan (1996) and Lea (1996) on public violence and racism.

Environmental learning also influences the way individuals develop concepts and values about work, career maturity and a productive or unproductive work orientation. Faulty learning of the productive role results in various types and degrees of work dysfunctions (Neff, 1977, 1985; Lowman, 1993).

The interaction between person and environment is perhaps best explained by Urie Bronfenbrenner's Ecological-Systems Model of Human Development (Craig, 1996). This model views development as a dynamic process in which the individual and the environment mutually and reciprocally influence development. Figure 4.3 shows an adapted presentation of Bronfenbrenner's model and indicates the multiple environmental and external influences, as well as the circular influence between person and environment.



**Figure 4.3** Systemic environmental influences in human development.  
Source: Craig (1996)

According to this model, there are four levels of systemic environmental influences in human development:

- The microsystem is the person in his/her living environment, consisting of those persons and organisations with whom the most intimate and frequent contact occurs. The individual, in terms of personality and frame of reference, influences and restructures this immediate environment to an important degree and creates new sources of influence for him-/herself and others.
- The second level of influence or mesosystem is created by the interactions between elements of the microsystem. For example, if the schools, churches, employers and neighbours exclude certain people because of their language or ethnic group, such interactions will have serious consequences in more than one domain of development.
- The exosystem involves aspects outside the individual's immediate contacts that may still influence him/her. These may be the family member's workplace, institutions in the community (such as health facilities), extended

family members, friends, social clubs and professional organisations. For example, a person could work from home for a company, which could influence not only that person's career development, but also the organisation's method of personnel management, whilst his/her presence at home may influence children's development as well as the way his/her partner approaches work and parenting.

- The fourth system, the macrosystem, represents a fluid type of influence in that it focuses on specific cultural and societal values, habits, laws and socioeconomic and political systems. These influences may be the most powerful in human development, as they often regulate how the individual or groups can, must or may live. In the world there are many examples of the dire consequences for individuals and groups, for instance in education, finance, housing and careers, when actions exclude certain people from sharing fairly in society's resources.

A further indication of how lifespan development is influenced by multiple determinants is given in the work of Hernandez, Stoller and Gibson, as well as Baltes (in Craig, 1996). They emphasise the extreme influence of historical events and cultural aspects on personality, ageing, development and ways of coping with problems. In this respect the time that people live in, and the type of opportunities people of different groups have, will influence their lives and their abilities to cope. For example, many authors illustrate the serious and cyclical effects of poor socioeconomic factors, such as poverty on people's psychosocial and career development (Hernandez, 1993; Demo and Ganong, cited in Newman and Newman, 1999; Hook et al., 2002; Hook et al., 2004).

Quite a number of South African studies, such as Kelly and Duckitt (1995), Lea, Bokhorst and Colenso (1995) and Gilbert, Van Vlaenderen and Nkwinti (1995), emphasise the role of historical, social-political and other factors on aspects such as self-esteem, racism and local knowledge. Studies on racism and cultural alienation indicate that people under these conditions, apart from any effects they may experience through poverty, will find it difficult to develop the necessary life skills and developmental tasks associated with each developmental stage (Corcoran and Chaudry, cited in Newman and Newman, 1999). Watkins and Mauer (1994), in a study in South Africa on the meaning of work, found that black managers experience a stronger sense of entitlement than white managers, which is ascribed to previous inequalities and prejudiced management systems.

Baltes (1987) stated that lifespan development is influenced by more factors

than only the interaction between development and history, and identified three broad factors that interactionally influenced development:

- *Normative age-graded influences* concern the usual biological and social changes that take place at certain ages. These include aspects such as going to school, puberty, marrying, menopause, and certain physical changes that are due to ageing.
- *Normative history-graded influences* concern historical events and traumas, such as war, natural disasters and other events that influence all or many people at the same time, to more or less the same degree.
- *Non-normative influences* refer to events that happen to certain people only, or to people in different ways, such as first loves, first employment, job loss, divorce, illnesses, promotions, moving house, and death in the family. Personal circumstances and demographic variables, such as age, gender, race and social class, determine how these factors affect each individual.

## 4.4 DOMAINS OF HUMAN DEVELOPMENT

Human development involves changes in three broad interdependent domains of human functioning: the physical or biological, the cognitive and the psychosocial domains. Development, changes and integration in all domains are important for the progressive development of the individual over his/her lifespan, but also for effective functioning in each stage and with respect to specific roles, such as scholar, worker, parent and member of society. A child in grade one will be ready for school and cope with the school situation only if the necessary mental, physical and emotional developments are in place and complement one another. The child must not only think, understand and remember, but also speak and perform practical tasks, as well as adjust to the pressures and responsibilities of a new situation and the emotional demands of peers and groups. This principle also applies in other situations, for example, for a person to be ready to start university or enter a specific job. An effective occupational fit is not only about intellect, but also about the competencies of problem-solving, logical reasoning, judgement, emotional control, social skills and adaptation to the physical demands of a job.

We assert that career development is a fourth domain of human functioning that builds on the progression and in the physical, cognitive and psychosocial domains.

### 4.4.1 The physical or biological domain

The physical or biological domain entails processes such as sensory capacities, motor responses and the functioning of respiratory, endocrine and circulatory systems (Butterworth, 1998; Weiten, 2011). Maturation, growth and ageing in biological processes primarily refer to changes in the person's body and related functions as a result of genetically guided processes, the influence of possible genetic diseases and harmful environmental factors (so-called teratogens), for example, nutrition, exposure to toxins, occurrence of accidents and diseases, and the impact of parental lifestyles (for example, excessive consumption of alcohol, drugs, lack of exercise and unhealthy eating). Healthy and age-related physical development is often necessary before healthy related developments in the other domains will take place. With regard to age-related genetic diseases, the Hutchinson-Gilford progeria syndrome (HGPS, meaning to become prematurely old) is a very rare disease with such children having all the capabilities and interests of other children, the only difference being their physical appearance and health problems because of the quick ageing processes.

Maturation processes are quite similar for most people, but exceptions and differences are evident. Motor and physical attributes such as walking, talking, reproductive capacities, ageing, contracting certain diseases, aspects of perception, and even certain intellectual and psychological processes may develop quite similarly or universally in all people and are not influenced only by environmental and social learning. In contemporary psychological research it is suggested that even prenatal influences and learning may impact on the unborn baby and may have important psychological, and behavioural effects (in Kowalski and Westen, 2011).

#### **4.4.2 Cognitive development**

Cognitive development refers to the progressive development of thought processes, mental abilities and the capacities to obtain, process, interpret, retrieve and use information (Demetriou, 1998). It seems as if intelligence, as measured by intelligence tests, reaches its peak somewhere in a person's 20s or 30s, and declines after the age of 45, though many different ideas about this phenomenon still exist. Other examples of cognitive processes are motivation, emotion, perception, learning, memory, judgement, reasoning, problem-solving, language skills, symbolic abilities and reality testing, which will change as influenced by genetic determination, life experiences, education and a person's own drive and insight.

Cognitive attributes change over time, from being simplistic, concrete and

self-centred to being more complex, organised, integrated and holistic. Cognitive development is also integrated with the psychosocial development of people because of the relationship between intellectual and non-intellectual characteristics or social-cognitive processes (Newman and Newman, 1999; Fiedler and Bless, 2001; Morris and Maisto, 2010). Recognised theories on cognitive development are Jean Piaget's theory on cognitive development, K. Warner Schaie's theory on adult thinking, information-processing theories such as Robert Sternberg's, and Lawrence Kohlberg's notions on moral development (Craig, 1996; Haste, Markoulis and Helkama, 1998; Hook et al., 2002; Weiten, 2011).

Cognitive development is based on growth and maturation of genetically determined processes (such as in the brain and other neurological structures) and the development of cognitive competencies at certain age-related transitions. As the person grows and matures, it is expected that certain intellectual and other cognitive abilities will develop and become available to the individual, and the person is thus expected to be able to perform certain tasks. Progression in a specific job or career also depends on development of cognitive skills, which become more advanced with higher job levels. In this respect, it is generally assumed that a manager should be able to show more initiative and think in a more creative and integrated manner than subordinates.

The characteristics of development discussed up to this point are reflected in many ways in Piaget's much-recognised and -researched theory on the development of cognition (Newman and Newman, 1999; Weiten, 2011).

Piaget indicated how cognition in all children develops in predictable hierarchic phases through interaction between maturation and learning experiences, and also emphasised the social context in which people develop. During these phases the cognitive processes, together with the emotional and social experiences, form cognitive structures or schemes which are categories of how information is processed. *Mental schemes* develop and are organised into operations or mental actions, which are reversible ways of understanding reality at various ages and which can change in quantity and quality (Hook et al., 2002). Each person use information differently which explain why each person may also have different constructions of reality or ways of understanding things. As thought processes become more complex, individuals' ability to adapt to the environment and to organise information also progresses through the mechanisms of assimilation and accommodation.

Through *assimilation*, quantitative development takes place, and new

information and experiences are interpreted and integrated with the existing mental schemes or understanding, without the mental structures changing. *Accommodation* promotes qualitative development, in that cognitive processes are changed to handle new experiences. In school or work situations accommodation contributes to adaptation through the learning of new concepts, or being able to solve more complex problems from separate sources of information. It is also relevant when moving from school to university or when starting a job when more advanced understanding is needed.

According to Piaget *adaptation* to the environment is effected through the *organisation* of various schemes or understanding and through balancing assimilation and accommodation. This is achieved through a process of *equilibration*, which involves seeking equilibrium or balance between assimilation and accommodation, which relates to finding a balance between mental schemes and the environment. An important contribution of Piaget's theory is the implications for adult thinking, specifically the finding that thinking patterns progressively develop from very concrete patterns to complex and abstract patterns, in fact adult thinking may be more complex than abstract. It may include patterns of post-formal or *relativistic thinking* such as handling contradictions; uncertainty, compromise and inconsistency, aspects which still need further research (Hook et al., 2002). *Metacognition and metamemory* in adult life means that the adult can reflect on his own thinking, and memory, that is, to understand why problems have been solved in certain ways and why information has been used in certain ways. We also know that adult cognitive development may start to show changes as from the mid 20s, such as slowing of certain motor functions and decreases with regard to certain memory functions (in Kowalski and Westen, 2011).

The phases through which cognitive development progresses, according to Piaget, are given in Table 4.1.

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**Table 4.1** Piaget's stages of cognitive development

Stages and ages	Characteristics
Sensory (birth to 2 years)	<ul style="list-style-type: none"> <li>• egocentric in thinking, gains knowledge by looking at, touching, holding and manipulating objects</li> <li>• develops coordination, and sensory-motor perception becomes more complex, for example, perception of weight, texture, taste and sound</li> <li>• can distinguish between self and environment</li> <li>• has little ability to understand symbols</li> </ul>

Pre-operational (2 to 7 years)	<ul style="list-style-type: none"> <li>• learns through actions</li> <li>• is increasingly able to remember and anticipate</li> <li>• internalises the concrete world through language and visual images</li> <li>• has concepts of mass and the constancy of objects</li> <li>• symbolic thinking starts to develop, but still has many problems with relationships, as things still seem irreversible, and not all elements are considered</li> <li>• is still egocentric in thinking</li> </ul>
Concrete-operational (7 to 11 years)	<ul style="list-style-type: none"> <li>• makes more progress in concrete thinking</li> <li>• can handle problems more logically and in various ways, considering more aspects</li> <li>• achieves insight into the views of others</li> <li>• develops the concepts of number, relationships and reversibility</li> <li>• makes steady progress in understanding language and towards adult ways of thinking</li> </ul>
Formal-operational (from 11 years onwards and throughout adulthood)	<ul style="list-style-type: none"> <li>• adolescents and adults makes use of abstract thoughts in addition to concrete thoughts, imagines things, uses metaphors, and formulates and tests hypotheses</li> <li>• uses logical thinking (inductive and deductive), and uses systematic and diverse approaches to problem-solving</li> <li>• able to use metacognition or thinking about one's own mental processes</li> </ul>

Piaget's ideas stimulated immense research and with regard to assessment methodologies. Whilst many of his ideas enjoy research support, other authors, also indicate shortcomings of, and suggest improvements to Piaget's theory and findings (Demetriou, 1998; Hook et al., 2002).

Schaie (in Craig, 1986) asserted that adult thinking develops in different progressive stages:

- In the *acquisition stage* during childhood and adolescence, the individual acquires progressively more complex ways of thinking, of which the formal-operational stage represents the highest level.
- The *achieving stage* during young adulthood involves problem-solving and decision-making, through which, for example, the individual uses intellectual competencies to prepare for a career (studying and choosing a career).
- *Responsibility* involves the stage of growing into an independent thinker, able to use his/her own solutions not only for personal and career problems, but also to help family, employers and the broader community.
- The *executive stage* during middle adulthood, also involves responsibility, and enables people, through an increase of knowledge (such as knowledge of how organisations function) to serve in responsible positions.
- In the *reintegration stage* the individual at an old age must use his/her accumulated repertoire of intellectual skills to assess life and to give meaning to what has passed.

In terms of integrating cognitive competencies, Kegan (1982) asserted that

cognitive development in every stage and throughout the lifespan has to do with ways of giving meaning to things and experiences (an assumption that is also the essence of cognitive development and personality theories). These *meaning systems* determine how people think and feel about things and how they behave, the latter for example, through core self-evaluations which can be either positive or negative (Judge and Hurst, 2007). Every individual has a unique way of solving problems, though some aspects will be similar for some people at certain stages. As the adult matures, these meaning systems become progressively more complex and sophisticated, as well as unique to each individual, although similarities with those of other people also occur.

Moral development is an important aspect of cognitive development which is also emphasised by Piaget and Kohlberg's cognitive theories (in Kowalski and Westen, 2011). A person's progressive acquisition of moral maturity involves the perception of right and wrong, having a conscience and feeling a sense of guilt when appropriate (Weiten, 2011). People with moral maturity can judge their own and others' behaviour according to principles and rules that they understand. In this regard they also demonstrate appropriate moral behaviours with regard to cultural demands, and they have attitudes that show concern for other people. The information-processing theories rather explain moral development during the various phases of development as progressive judgements on issues which are right or wrong. An example in adult life is a judge in court deliberations where a person may be judged to be punishable or not after answering the questions on the causes of behaviour, whether a person is responsible and whether he/she is guilty or to be blamed. Emotional approaches use aspects such as guilt feelings and empathy to explain how people deal with moral issues (Kowalski and Westen, 2011).

The culmination of morality can be envisaged as *wisdom*, which denotes an integration of understanding and action with regard to social-moral issues, emotions, cognition, reasoning, expertise and the use of knowledge. Research summarised by Haste, Markoulis and Helkama (1998) indicates extraordinary or exemplary moral responsibility in some people. Examples are the many wise people of the world, such as Nelson Mandela, F.W. de Klerk, Desmond Tutu and Mother Theresa, who are prepared to show realistic humility and risk their own self-interests by consistently, and through continuous commitment to moral values, inspiring others to moral action. Many other leaders manifest what is more or less the opposite of morality in their personal behaviour and governance.

*Morality* usually develops in stages. Firstly the young child thinks about right and wrong in terms of rewards and punishment from external sources such as parents, and the older child uses rules to create his/her own perception of morality, which Kohlberg referred to as preconvention morality. In contrast the adult has an internalised or personal set of rules and ethics from other people and institutions which are used to judge his/her own and others' behaviours and events, referred to as conventional morality (Haste, Markoulis and Helkama, 1998 Kohlberg, in Kowalski and Westen, 2011). According to Kohlberg postconventional morality may involve principles beyond dominant morals of the time. In the latter case a person may not agree to the death penalty, but will argue for it in special circumstances.

Morality shows cultural differences and will be influenced by individual cognitive learning, internal reflection, feelings, experiences, people's efforts to adapt to situations, and the meanings coupled to social processes in and between groups and societies. Morality in work places is emphasised by the emphasis placed on ethics in work and in business practices (Coetzee and Schreuder, 2010).

#### **4.4.3 Psychosocial development**

Psychosocial development involves the progressive development of psychological or emotional and social or interpersonal behaviours and thought (socialisation) in humans during the lifespan as a result of the diverse social interactions in which people become involved. According to Newman and Newman (1999) progressive psychosocial development involves the learning of social skills and behaviour with regard to own needs, culture and social relationships. This is necessary to master the environment, solve social conflicts and be able to face stress and challenges during the progressive development process.

Research summarised in Durkin (2001) and according to evolutionary theory, people are social beings at and from birth. In this regard, developmental social psychology has its roots in the many psycho-dynamic, social-psychological and learning theories on personality, such as those of Sigmund Freud, Alfred Adler, Erich Fromm, Harry Stack Sullivan, Erik Erikson, Karen Horney, Ainsworth and Bowlby, John B. Watson, Robert Havighurst, Joseph White, and many other theorists who also emphasised the role of social influences on personality and self-development (in Newman and Newman, 1999; Cervone and Pervin, 2008; Schultz and Schultz, 2009; Kowalski and Westen, 2011). According to related

research, children are not passive acceptors only; they are cognitively, perceptually and emotionally actively involved and even in conflict with their parents and caregivers in a mutual process of influencing to shape and understand their own social development.

*Socialisation* involves how people progressively learn to adapt and behave socially. It entails the acquisition of the rules, beliefs, attitudes and values that enable a person to function effectively in society (Durkin, 2001). Socialisation influences many social behaviours, such as attachment, self-concept and self-identity, relationships, language development, the development of social knowledge and social-conflict resolution. All areas of personality development are also involved (for example, the self as a private person, a worker, a family person and a member of society). Harter (2003) explains how much of psychological characteristics, adjustment and maladjustment, and individual differences with regard to these issues, develop as a result of the various types of *self-representations* (self-descriptions or self-perceptions) that children and adolescents accumulate about themselves and the world. Such self-representations can include senses of self-regard, the development of cognitive abilities, as carried in family and cultural narratives, and with regard to relationships experienced in early interactions with others, especially with important caregivers.



**Figure 4.4** Parent identification is important for a person's later adult behaviour.

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According to Van Lieshout and Doise (1998), social development is strongly influenced by the many relationships in a person's life, especially as marked by continuity and discontinuity over the lifespan. Sources of continuity in

relationships, which can be complemented by discontinuity influences, are the quality of secure parent-child relationships, constructive friendships throughout life, types of attachment behaviours (such as antisocial, pro-social or socially withdrawn behaviours) and the social support people are able to provide to others.

Sources of *discontinuity* in relationships that may negatively impact on lifespan development are changes in situational circumstances, relationships and group affiliations. Changes in important and close relationships can be disruptive in younger children. It may go hand-in-hand with separation anxiety which may often manifest in modern societies when children are often for shorter and longer durations separated from parents for work and social reasons. Similarly, if changes in the importance of group affiliations (such as school, university, work organisation, family or marriage) occur, they may disrupt social development. Some form of discontinuity also occurs because at certain ages young people are required to disengage, withdraw or separate from close parental relationships to cope with adult requirements, for example visiting school or entering a first job, which may influence developmental relationships.

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### **ETHICAL READER: Prejudice**

Attitudes related to prejudices and people's tendencies to classify others in groups have their roots in the social constructions of childhood because of social learning, especially from parents, and other social experiences (Hoover and Fishbein, 1999). Adorno, Frenkel-Brunswick and Levinson, as well as Sanford (cited in Brown, 2001) postulated a hypothesis that prejudice could be a personality problem, because prejudice expresses deep-seated social attitudes, possibly because of repression of social instincts and harsh parental discipline during childhood development. In later life these repressed social attitudes and aggression towards the parents may find expression in aggressive and prejudiced behaviours towards other people, through a personality type referred to as the *authoritarian personality*. However, some studies (for example, Aboud, 1988; Brown, 1995) conclude that because of the social cognitive development and distinct perception of young children, their attitudes and beliefs need not be the same as their parents. The maintenance or increase of a child's prejudiced views into adult life could also be

a function of many social influences, such as group affiliations, societal norms and values, education, social stratification and political-ideological structures and influences.

With regard to the importance of close relationships in socialisation, the studies on attachment behaviours in children and adults are specially important. *Attachment* refers to a person's desire to be close to an attachment figure, and to feel secure in their presence. They experience feelings of discomfort when this figure is absent. Research with infants (Ainsworth, Waters and Wall, 1978; Ainsworth, Blehar, Waters and Wall, 1979; Bowlby, 1988) and adults (Hazan and Shaver, 1994; Sperling and Berman, 1994; reported in Kowalski and Westen, 2011) found various types of intimate behavioural styles which though may differ amongst groups and cultures. These types are referred to as secure and insecure patterns of attachment behaviour.

*Insecure attachment* is presented as three types:

- The *ambivalent attachment type* shows mixed feelings of acceptance and rejection, and in relationships may demand extra attention.
- The *avoidant attachment type* is characterised by fear and rejection of close relationships, and may avoid commitment in relationships.
- In the *disorganised or disoriented attachment type* the person is confused and contradictory, and may feel secure with one person but show insecurity with another.

Research on child and adult attachment behaviours make it possible to predict many aspects of later child and adult behaviours, especially with regard to the type of relationships which people will have (Kowalski and Westen, 2011).

Insecure attachment experiences in infancy are also related to overdependence, fewer social skills, emotional sensitivity and less competence in older children (Cloninger, 1996). In contrast, higher levels of empathy were found in adults who reported higher involvement with parents at a very young age (Koestner, Franz and Weinberger, 1990). Psychological maladjustment and depression in adults and some disorders of children, like attachment disorder, are associated with insecure attachment behaviours in early childhood (Acklin, Sauer, Alexander and Dugoni, 1989; Acklin, Bibb, Boyer and Jain, 1991; Wilson, 2001).

People fitting the *secure attachment type* have positive, unthreatened relationships with others. Secure relationships are important in all stages of life,

therefore consistency of such experiences in a family's lifetime may be as important, or even more so, than secure attachment experiences at a certain stage only. Secure attachment experiences during childhood will most probably lead to well-adjusted adults, for instance with regard to mental health and intimate adult relationships. Ainsworth, Blehar, Waters and Wall (1979), for instance, believed that secure infant bonding behaviour will characterise affectionate adult bonds. This means that the adult will be able to be loyal to a chosen person, but also feel safe to share such relationships. This would be the case when the young adult enters a career and also marries. Both parties in such a marriage have to feel and know that they are in a loving, respected and enduring relationship, but they must also trust each other when working away from each other, and relate to other people of the same and opposite sexes in the workplace.

With reference to performance behaviour and career efficacy, secure attachment in childhood will probably produce higher intellectual achievements in older children and adults (Jacobsen, Edelstein and Hofmann, 1994). Better achievements are also related to first-born children, because parents often spend more time with their first-born or only child. The development of self-esteem in all people, but especially the young, is likely to be severely hampered in less-developed countries, which are often plagued by high unemployment, labour unrest and ethnic and racial disputes, and with high rates of crime, divorce, rape and child abuse. In such situations many young people go through life without effective bonding and exemplary role models in their family or work life.

Part of socialisation, and especially under the influence of culture, is the development of values, whether personal or collective, that will influence people in all their life roles. In this regard work values are an important determinant in the meaning people attach to work, work motivation and work performance, and in career development and career choice (Elizur and Sagie, 1999; Roe and Ester, 1999; Ros, Schwartz and Surkiss, 1999; Schwartz, 1999; S-verko, 1999; Schreuder and Coetzee, 2011).

#### **4.4.4 The development of career-related tasks**

The physical, cognitive and psychosocial domains all help an individual to develop appropriate career and job competencies and to make appropriate *career-related decisions* at certain stages. Choices may relate to the choice of school subjects, a study direction, a first job, maintaining relationships at work, staying in or changing a job, or retiring. Developing a work ethic, attitudes and values about productivity and performance, and values as to what issues in work

life to emphasise should also be facilitated in human development. In this regard Neff (1977, 1985) postulated the concept of the so-called work personality, which develops because the individual acquires positive work behaviours and the competency to be productive. Work dysfunctions may occur if there are deficiencies in this productive role or work personality. An important aspect of socialisation influences is the progressive development of motivation (Fontaine, 1998). This is especially important if one considers that work activity, together with family life and religion, is one of the most important central life interests. Work gives meaning to life in many respects, and it is most important that people find meaning in work and provide economically for themselves and their dependants.

Development and changes in the physical, cognitive, psychosocial and work domains seldom occur separately, but rather occur interdependently and holistically, and cause human growth and behaviour changes in people. Development in one area or during one phase will influence, and can often be critical for, development in another. Following is discussions on general human development phases, followed by career development stages across the lifespan.

## **4.5 STAGES OF HUMAN DEVELOPMENT ACROSS THE LIFESPAN**

As indicated, in contemporary psychology explanations of human development happens according to either a stage development perspective or a lifelong continuous change concept or a combination of the two approaches. We support the latter, that is, continuous development across many domains during various stages across the life cycle. Stage explanations may fit child development best, however in adult life stages may be less discernible.

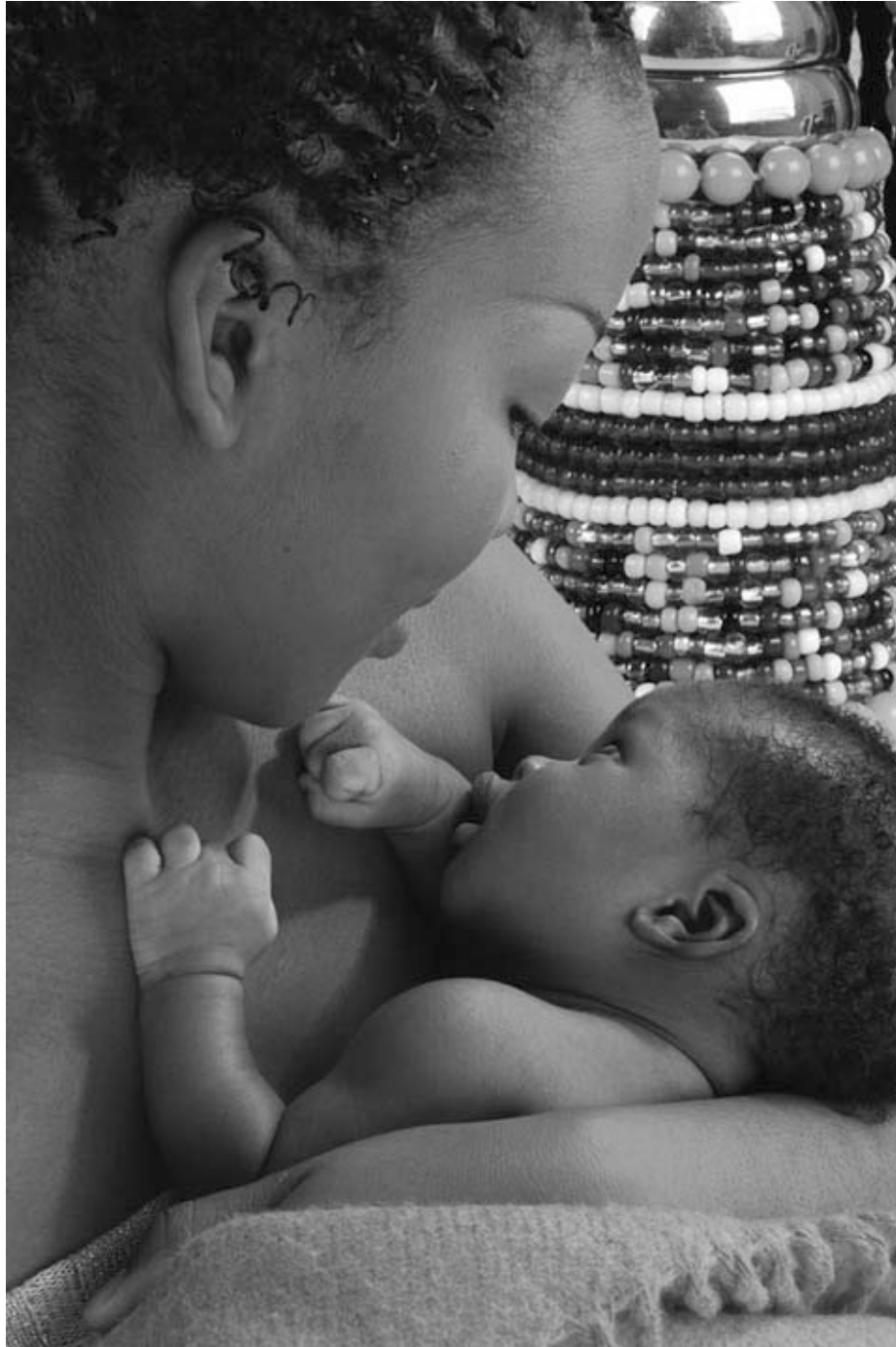
### **4.5.1 The first five or six years**

Though life in humans begins at conception and many factors before and during pregnancy may influence development, we believe the onset and progression of human life is really only understood with regard to the various domains of development once a baby is influenced culturally and socially in broader environments.

Several writers, such as Bowlby, Ainsworth and Freud (in Weiten, 2011; Cervone and Pervin, 2008), considered the first *five or six years* to be the most critical for development, on the grounds that at this stage the relatively immature

neurological or physiological and emotional systems are not yet able to respond effectively to the complexities of the environment. Mental development occurs predominantly whilst the individual is still immature and is thus vulnerable to harmful environmental factors, which may impair healthy development.

For a child between one and six, the critical identity-development areas are: small and gross physical skills; thinking patterns (from understanding concreteness only to understanding time, order and symbols); learning and remembering; language formation; and the identification with and modelling of behaviour on that of parents, other family members and media influences, so as to express feelings and act in a disciplined and socially appropriate way. Children's natural curiosity, fantasy, games and identification with parents are ways in which information, attitudes and interest in occupations are established.



**Figure 4.5** Early attachment or bonding is important behaviour for later stages.

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A critical development task of infants during the first and second years of dependence on parents, especially the mother, is to form healthy *attachment behaviours* (feelings of interdependence, mutual feelings of devotion and

emotional ties, see section 4.4.3). Bowlby and Ainsworth (in Craig, 1996; Weiten, 2011) believe that it is critical for babies to form emotional ties with a single mother figure. Initially babies become involved with only one person at a time, but by the time they learn to discriminate more, usually after the first year, they form attachments to others as well.

The role of a working mother often necessitates a number of substitute mothers, such as nursemaids and crèche staff, and this may mean the lack of a continuous, consistent, qualitative relationship (in other words, the onset of separation anxiety or a breach of the one-to-one relationship with an adult). However, it is as important to have a number of qualitative relationships which broaden a person's social skills for later and adult roles.

The quality of early attachment behaviours may be transferred to adult attachment behaviours, types of interpersonal communication, falling in love and marriage, attachments to own children, friendships and relationships at work.

Freud (Schultz and Schultz, 2009; Maltby et al., 2007; Larsen and Buss, 2008) differentiates between five so-called “psychosexual stages” of personality development (see Chapter 14, [Table 14.3](#)):

- the oral stage (first year)
- the anal stage (from one to three years)
- the phallic stage (from around four to five years)
- the latent stage (from around 5 to 12 years)
- the genital stage (from around 12 to 18 years and beyond).

Each stage (but especially the first three) is related to a specific area of the body or erogenous zone (for example, mouth, anus or genitals) through which sexual energy is set free. Although these stages make sense to many people, research is needed to verify their assumptions.

According to Freud, how and whether needs are gratified or frustrated in each stage by parents and others may cause fixations that will be manifested in later personality traits and behaviours. *Fixations* occur when some libido or sexual energy get stuck in one of the stages (are either excessively gratified or frustrated) and do not develop adequately beyond that stage. This will result in certain experiences being threatening and provoke anxiety, and these may stay unresolved. This causes the child or adult to keep on seeking satisfaction for unresolved conflicts by using inappropriate, immature behaviours from previous stages, which is referred to as *regression*.

Freud believed that anxiety-based disorders (previously referred to as neuroses) originate in early childhood when the ego is not mature enough to

resist stress. Adult behaviours, including work behaviours, are also related to the type of development during the early psychosexual development phases, although little research exists. The development of independence, self-control, a healthy sexual identification and a moral conscience, healthy heterosexual relationships, and the ability to love unselfishly are some important consequences resulting from the first six years for general adult and occupational behaviour.

Some of the problematic behaviours of employees could possibly be explained by Freudian theory. For example, jealousy, passiveness, impatience, narcissism, verbal aggressiveness and manipulative behaviours may convert from the oral stage's early behaviours of sucking and biting; rebelliousness and untidiness from the anal stage's expulsion of faeces; whilst men who are competitive, ambitious exhibitionists, always trying to be superior and prove their masculinity, might be thought of as having phallic fixations.

#### **4.5.2 Lifespan development**

In contrast to Bowlby and Freud, who emphasised the first five years, Erikson regarded human development as a process of psychosocial development spanning *eight stages of life* (described in Sections 4.5.2.1 to 4.5.2.8). Erikson viewed these stages as occurring according to a genetic or biological plan (the epigenetic principle) over a lifespan towards the acquisition of ego-identity (Erikson, 1963; Mayer, 2007; Cervone and Pervin, 2008). Ego-identity is obtained by resolving conflicts in the eight consecutive phases, from birth to maturity. Each phase constitutes a critical period, during which certain ego attributes are developed that determine the individual's self-concept and may influence behaviour for the rest of the person's life. Each phase incorporates a psychosocial crisis, such as trust versus mistrust. All people experience both ends of the continuum, but the satisfactory resolution of each psychosocial crisis depends on a balanced integration of the opposing forces and the quality of a person's social-learning experiences. In a later addition to his theory Erikson added a so-called "virtue" to each of the eight stages, as well as a correlation between the psychosocial conflicts in every stage and peoples' every day habits and routines. Erikson considered the eight virtues to be internal dispositions or strengths which people can develop and achieve during the resolution of the psychosocial development crises in order to be alive and healthy and to reach a coherent or composite self, consisting of body, personality and social roles, and to be "alive and well" (Capps, 2008). Capps (2008), in a relocation of the Erikson

stages to decades of life, suggested that the various virtues really represent various selves which make up the composite self. The virtues suggested by Erikson, and following from infancy to old age, are hope, will, purpose, competence, fidelity, love, care and wisdom.

According to Erikson early phases do influence later phases, however, possible wrong developments can be rectified if an individual in a later stage receives what he/she was deprived of in an earlier stage.

Parental, social and cultural factors are important influences in Erikson's theory, and this theory incorporates many of the critical aspects of human development.

Together with Piaget's theory on cognitive development, Erikson's theory may be the most influential theory in the literature on human development, and also contributes greatly to career-development concepts. The five later stages are especially relevant for adult occupational behaviours. However, many criticisms are also levelled at shortcomings in and the inability of Erikson's theory to explain the many differences between people's development (Hook et al., 2002; Kowalski and Westen, 2011). Following is a discussion of each stage as suggested by Erikson, and Freud's comparative descriptions for the first five stages are also included (Hook et al., 2002; Capps, 2008; Larsen and Buss, 2008).

#### **4.5.2.1 Trust versus mistrust (first year of life, oral, sensory): Virtue – hope**

During infancy, trust, a sense of inner security and feelings of mutuality develop as a result of satisfactory care (for example, maternal care). Trust is the infant's first social achievement, in that the mother is trusted, even if she is occasionally absent.

Mistrust is manifested in a sense of rejection, with concomitant scepticism towards people. These attitudes, either mistrust (with pessimism) or trust (with optimism), remain with the individual throughout life.

This stage is similar to attachment as described by Bowlby, Ainsworth and Freud. A core pathology that may develop is withdrawal.

#### **4.5.2.2 Autonomy versus shame and doubt (two to three years, muscular, anal): Virtue – will**

Maturation of physical functions (for example, control over excretory functions) teaches the child self-control and adequacy, which fosters a sense of self-esteem,

pride and autonomy. The imitation of parents' behaviours is an important mechanism to resolve possible psychosocial crises.

Frustrations in these areas may, in the adult, foster feelings of inadequacy, self-doubt, a lack of assertiveness and a lack of self-control. A core pathology may develop as a compulsion or manifest in repetitive behaviours.

#### **4.5.2.3 Initiative versus guilt (four to five years, locomotor, genital): Virtue – purpose**

The young child learns initiative by sharing responsibilities, such as the care of younger children, and by manipulating toys and exploring the environment. He/she identifies or internalises the qualities of the provider (for example, the parent), whom the child will in due course become. Identification is an important mechanism to resolve possible developmental crises.

If the child fails to develop initiative and is criticised too frequently, he/she may grow into an adult whose core pathology consists of inhibition of potential, or he/she may develop psychosomatic ailments to evade responsibility or to overcompensate for a lack of initiative (for instance, by boasting).

#### **4.5.2.4 Industry versus inferiority (6 to 11 years, through to puberty, latency): Virtue – competence**

At school-going age a child is ready to acquire qualities of productivity, such as perseverance and task completion, and to develop a sense of learning, accomplishment and competency. He/she is introduced to the concepts of division of labour and specialisation, and learns the significance of status and roles through the opinions of peers. In non-literate societies, children learn industry through getting to know the basics of their society's technology and economy (for example, how to use tools for hunting and fishing). In either type of society, education is a central process in resolving possible psychosocial crises.

A core pathology may develop if the child is unable to do what is expected of him/her (inertia) or if a negative assessment by others gives rise to feelings of inferiority (as in the case of people who are not even willing to try because they think they are not worthy). This may be the breeding ground for what is known as the "fear of success" and "learned helplessness", found in people who out of fear cannot be self-sufficient.

#### **4.5.2.5 Identity versus role diffusion (12 to 18 years, puberty**

### **or early adolescence): Virtue – fidelity**

During adolescence all the qualities and roles developed during the previous phases find expression in a broader social context. Teenagers test their ego identity by belonging to groups and by falling in love.

If individuals feel that they do not have the same identity in others' eyes as they have in their own, they become confused regarding their roles in life, and regarding who and what they really are. A core pathology that may develop is an inability to connect meaningfully with others.

### **4.5.2.6 Intimacy versus isolation (late adolescence, early adulthood): Virtue – love**

Young adults share their identity with others through affiliation and friendship. This is accompanied by a strong ethical awareness and the ability to commit themselves in intimate relationships, and to experiment with various life roles. Role experimentation is an important mechanism in solving psychosocial crises. The ideal form of intimacy is a relationship based on mutual trust, the sharing of the work and recreation spheres, and mutual, simultaneous sexual satisfaction.

A lack of intimacy creates a sense of isolation and produces people who are self-absorbed. A core pathology that may develop is an inability to assume other roles. Successful resolution of intimacy conflicts is based on the development tasks during the previous phases.



**Figure 4.6** A lack of intimacy may create a sense of isolation.

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#### **4.5.2.7 Generativity versus stagnation (adulthood): Virtue – care**

As individuals proceed into adult life, they need to feel needed, especially in relationships with peers and family, as well as needing meaningful interaction in the social environment. They may satisfy this need by, for example, caring for

children or by societal involvement. This desire to give is not the same as the mere desire to have children. Generativity and creativity may also find expression in spiritual work, in the sense of caring for God's creatures, charitable work and even in career efforts. However, in Erikson's view, this can never compensate for genuine involvement with offspring.

Lack of such self-fulfilment leads to a preoccupation with the self, as, for example, in someone who sees him *herself as only a child, as a helpless invalid, or who becomes so wrapped up in a marriage partner that he she* regards the other person as his/her only child. A core pathology may be expressed as an inability to include others in generative activities.

#### **4.5.2.8 Ego-integrity versus despair/disgust (ageing, maturity): Virtue – wisdom**

If all the conflicts of the previous phases have been resolved and healthy ego characteristics have developed, the aged individual accepts his/her life cycle with a spiritual sense of order, meaning and wisdom which provides emotional integration and softens the fear of death. Important mechanisms at this stage to resolve possible psychosocial crises are introspection and nostalgic remembering.

Despair in people is manifested by a feeling that life is too short. Such people are inclined to regard others with disapproval, which is merely a form of self-reproach. This may be the case in many older people or even in younger ones, when people experience their life, relationships and activities as meaningless. Core pathologies can be recognised in bitterness, self-doubt and disdain at one's own and others' weaknesses.

## **4.6 CAREER TRANSITIONS AND TASKS**

Occupational development, and its various stages and related tasks, are intertwined with general human development, particularly in later childhood, early adulthood and later adulthood. Occupational development are explained by some psychological developmental theories, however, many more specific stage and lifespan theories relating to career development, career choice, other career concepts, and career counselling exist (Craig, 1996; Sharf, 1997; Greenhaus, Callanan and Godschalk, 2000; Schreuder and Coetzee, 2011). Some of the well-known theories in this regard are Holland's theory of personality and occupational types, Dawis and Lofquist's theory of person-environmental

correspondence and Super's career development theory. Similar to general development, in career development too, it is accepted that certain changes and progression happens during certain stages. Each of these require somewhat different development tasks. In contrast and in combination the lifespan theories emphasise that people can change throughout their life cycles and changes can occur at any time across the lifespan.

As the case with childhood development, adult development is heavily influenced by environmental factors, especially cultural and historical determinants. The latter include what has happened during the early developmental stages, and the socioeconomic and political influences. During early and later adulthood, many changes and increasing competencies (and, in some cases, decreasing competencies) continue to occur in the physical, social, emotional, cognitive, self-reflective and moral domains of behaviours. All these influences and developments accumulate and manifest themselves in roles and tasks such as work, relationships and child-rearing, which will also impact on the state of people's physical and psychological well-being (Pulkkinen, 2000).

Work behaviour and career adjustment should also be understood in the light of:

- how work ethics differ in different cultures
- the socioeconomic differences between various societies and groups
- the effects of affluence compared to the effects of poverty or economic instability
- the effects of being pleasantly employed, compared to the effects of being employed doing unpleasant work or working in poor circumstances, or being unemployed.

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### **Questions illustrating typical problems in career development**

Typical career-development problems are illustrated in the following questions:

- Why does an engineer, after years of study and work, suddenly leave his job to become a preacher in a remote area?
- Why can't a young graduate or a single, divorced mother, after a 10-year absence from formal employment, find a job in her field?
- Why does a 50-year-old man leave his teaching job, and possibly also make other life changes, to start a business – and in the

process lose all his savings in this unsuccessful effort?

- Why does an architect become unemployed after the closure of a bank?
- Why are all these people frustrated and uncertain about their competencies as people, workers and providers?
- Why do so many people just go to work every day and stay in the same job all their lives?

*Career maturity* is the progressive maturation and growth in physical, cognitive and psychosocial domains that enables people to cope with developmental tasks during their career development, and in related work and non-work roles. In this regard Schreuder and Coetzee (2011) report that a high level of career maturity is achieved if an individual's career decisions are characterised by decisiveness, involvement, independence, task orientation and the willingness to balance personal needs and the realities and requirements of the work situation. Career maturity is influenced by every life stage and differences are related to people's different attributes and circumstances.

A related concept is *career self-efficacy* (Hackett and Betz, 1981; Bandura, 1986; Lent and Hackett, 1987), which refers to people's belief in their abilities and sense of self-control, and the expectations of being successful in jobs and being competent in specific career-related tasks.

Gender differences may exist with regard to the development of self-efficacy, because of past inequalities, conditioning effects and prejudiced social constructions about traditional male and female roles. Women were, and sometimes still are, subjected to lower-status jobs, fewer success and encouragement experiences, and fewer opportunities for skills development, which may have created higher levels of anxiety in jobs. All these experiences may lower self-efficacy in women, because of feelings of inadequacy, uncertainty and underdeveloped competencies, which in turn foster low self-efficacy beliefs.

Much of what transpires positively or negatively in adult personal and vocational behaviours may be related to the formative early years and physical, cognitive, social and emotional behaviours. For example, research cited in Kowalski and Westen (2011) indicates the importance and predictive value that various types of attachment behaviours (see section 4.5.1) during critical periods may have to predict various aspects of child and adult behaviour. During

lifespan development and integration in the domains of physical, cognitive, moral and psychosocial development, people need to acquire certain development tasks or competencies related to learning, work and career choice. Havighurst (in Herr and Cramer, 1972) describes a *development task* as a task that arises at or about a certain period in the life of the individual, successful achievement of which leads to happiness and success with later tasks, whilst failure leads to unhappiness in the individual, disapproval by society, and difficulty with later tasks.

Such competencies could include making choices between liked and disliked tasks, accepting responsibility for doing tasks and for completing tasks within certain time limits, making initial career choices in selecting certain subjects or study directions, and being able to enter a first job.

The many theories that explain career development are in agreement with regard to the different career stages and the relevant developmental tasks. For example, for Super, career development, career adjustment and career maturity are related to expressions of self-concept, whilst Havighurst emphasises the development of skills and attitudes. Table 4.2 integrates the views of Super and Havighurst on stages and necessary development tasks.

**Table 4.2** Career stages and tasks

Ages and phases	Tasks and transitions
<b>0–14 Growth phase</b> 0–3 Pre-vocational 4–10 Fantasy 11–12 Interest 13–14 Capacity	<b>General physical and mental growth</b> <ul style="list-style-type: none"> <li>• no or little career interest</li> <li>• fantasy or games about work, based on identification with parents</li> <li>• likes and dislikes form the basis for job and career interest</li> <li>• abilities as the basis for thinking about jobs and careers</li> <li>• through schoolwork, learning priorities, organising time and completing tasks</li> </ul>
<b>15–24 Exploration phase</b> 15–17 Tentative 18–21 Transition 22–24 Trial	<b>Broad exploration of work</b> <ul style="list-style-type: none"> <li>• various attributes (such as abilities and values) become the basis for occupational choices</li> <li>• more specific and realistic about career choices, study and job entry</li> <li>• study and entry into first job, identity as a worker</li> </ul>
<b>25–44 Establishment phase</b> 25–30 Trial 31–44 Stabilisation	<b>More permanent job or career, creative years</b> <ul style="list-style-type: none"> <li>• possible changes of jobs and career</li> <li>• productive, stable work in a given job and career</li> <li>• moving ahead, and maintaining income, lifestyle and societal roles</li> </ul>
<b>45–65 Maintenance phase</b>	<b>Progress and continuation in a given career line</b> <ul style="list-style-type: none"> <li>• holding job, updating and innovating</li> <li>• maintaining societal roles and possibly planning for retirement</li> </ul>

**65+ Decline phase**  
65–70 Deceleration  
71+ Retirement

**Preparation to retire**

- if working, deceleration and decline in capabilities, planning to retire
- ceasing work, contemplating life

Sources: Super and Havighurst (in Weiten, 2011; Craig, 1996; Sharf, 1997)

The following is an integrated discussion of development tasks in adult career transitions, as reflected in Table 4.2.

#### **4.6.1 Early life – occupational choice and preparation**

Early life can be considered as spanning the years from birth to around 22 years of age. The critical issue of early-life development towards adult career adjustment is whether the adolescent or the young adult has achieved integration of *self-identity with a career identity*, and is prepared to fulfil various roles. Much of job skills, job interests and work values start to be shaped during very young ages, when the child through play, curiosity, exploration and interaction with important others form certain ideas about the world of work. According to Gottfredson (1981) a vocational concept and career aspirations in early childhood is shaped by four orientations about work. These orientations are:

- size and power (3 to 5) when the child through gender roles start to be interested in gender-based jobs which may be related to the use of physical and social power
- sex roles (6 to 8) when children use sex roles to identify with jobs and start to avoid interest and activities with regard to jobs traditionally executed by members of the opposite sex
- social valuation (9 to 13) during which time children become aware of levels of work and social class, prestige and professional status in certain jobs
- the internal, unique self (14 to early adolescence) when the young person becomes more self-aware and evaluates own interests, abilities and other attributes in relation to various jobs and in context of sex roles and social status.

As the child matures in all domains of development and obtain more self-and job knowledge and advanced education, he/she is able to find closer correspondence between his/her self-concept and related attributes and the requirements and decisions with regard to study and job directions (Schreuder and Coetzee, 2011).

Career maturity, the responsibility to choose a career identity and career entry, might be very important. This involves becoming independent and

autonomous from parents, but keeping supportive relationships. Identity formation at the adolescent level may also be different for men and women. Whilst young men and women are busy with career issues, other young women at this stage may be more involved in relationship issues, because some women may still believe that marriage is more important to their identity than occupational choices only.

Important career-development tasks for career maturity at this stage, just before career entry or tertiary studies, are given by Super and Crites (summarised by Sharf, 1992; Craig 1996; Zunker, 2006). These tasks include the competencies to make choices, and the development of certain attitudes:

- *Career orientation* is the person's active involvement and commitment in the process of career choice (that is, knowing what is expected, and using information and abilities to solve career-choice problems).
- *Career information and planning* requires the ability to explore careers and gather the necessary information to plan for and decide on a certain career.
- *Consistency of career preferences* relates to consistency of choice over time, but also to choices within career directions.
- *Certainty or crystallisation of concepts* relates to attitudes about work and careers.
- *Wisdom of vocational choices* relates to a realistic choice, based on an assessment of abilities and interests compared with the demands of possible jobs or careers. This is especially important during the transition stage (18 to 21 years) when the young adult must decide on a study and career direction and even start in a job.

According to Marcia (in Craig, 1996; Cervone and Pervin, 2008), who expanded on Erikson's identity-versus-identity-diffusion stage, adolescents may experience four types of ego identity states in career-choice issues, as explained in the box below.

### **Marcia's four types of ego-identity states that adolescents may experience in career-choice issues**

If adolescents are able to explore many possibilities and seek information about themselves before making choices on study and career issues, they may be said to have obtained occupational identity with no identity confusion.

If an adolescent cannot make a choice as yet, he/she may be said to be in a moratorium, an ongoing state of uncertainty.

An adolescent who cannot make or avoids making any career decision, such as what subjects to major in or what type of job to enter, may be experiencing vocational identity diffusion, which in turn may lead to trying a number of jobs without success. Such individuals may become failures in society, with all the accompanying problems.

Identity diffusion may even exist in an adolescent who thinks he/she has made the right career choice, for example to be a pilot just because he/she always wanted to be a pilot or because others wanted him/her to be a pilot. Such an individual's vocational identity is foreclosed or rigid, because he/she cannot consider other options and may make an incorrect choice, although such decisions may not cause a crisis or anxiety.

The development of these career-related tasks must be considered in terms of the physical, cognitive and emotional changes during this youthful stage.

Adolescents' primary characteristics are physical and body-image awareness, sexual maturity and experimentation, a search for self-identity and adult levels of thinking. However, owing to long periods of study and financial and emotional dependence on parents, as well as the pressures to make the first "real" career choices, adolescents often experience emotional turmoil and identity confusion. Unresolved conflicts from previous stages and events such as intimate relationships, unwanted pregnancies, substance abuse and law-enforcement problems may intensify the difficulties in personal and career adjustment.

Adolescents' rebellious behaviour, self-criticism, and criticism of parents and other norms can also be interpreted as quests to behave, feel and think more independently. However, emotional insecurity may result in overreaction, impulsiveness or poor choices. Greater analytical powers would enable the adolescent to make early career decisions and to assess the overload of information on careers that he/she encounters at this stage. By the time they enter a career, youths must have learned to accept authority, be able to work in groups, and value cooperation.

Adolescents' sense of self-identity is not only increased by experimenting sexually and emotionally in new attachments and critically using adult cognitive

powers, but also in the process of separating from their families. Hoffman (1984) stated that the adolescent or young adult who is separating from his/her family must acquire the following four types of independence:

- emotional independence (being less dependent on acceptance and affect from others)
- attitudinal independence (developing own attitudes and values)
- functional independence (solving own problems and being financially more independent)
- conflictual independence (separating without feelings of guilt or remorse).

Craig (1996) asserts that part of adolescents' adjustment lies in the type of agreement and mutual support that exist between them and their parents as they search for an own identity and greater freedom.

### **Classifying adulthood into stages**

Adulthood is often regarded as the period beyond 20 years of age. Avery and Baker (1990) classify adulthood into five stages:

- building a workable life (from 22 to 28 years)
- crisis of questions (from 29 to 34 years)
- crisis of urgency (from 35 to 43 years)
- attaining stability (from 44 to 50 years)
- mellowing (50 years and older).

Adulthood is also commonly divided into early, middle and late adulthood.

#### **4.6.2 Young adulthood – entry into and establishment in the workplace**

Young adulthood can be considered as spanning the years between 22 and 45. Many of early adulthood's development tasks are about adjusting to the *realities of adult roles* and to establish and achieve in a career. Consolidation or stability implies ongoing identity formation as a person, and involves tasks such as getting married, finding a stable occupation, establishing a family and a home, friendships, relationships, participating in recreation activities and assuming societal roles. A partner for marriage or intimacy, and the responsibilities of parenthood, seem to be crucial parts of adulthood in all stages and in many roles.

In this respect Freud saw success as an adult as being successful in love and work, whilst Erikson and others proposed ideas such as intimacy and generativity, which means that the adult found self-identity in personal goals such as marriage, children, family, work and community. The adult's quality of relationships is important in many spheres, such as nurturing one's own children, managing one's romantic affiliations, and influencing other people in the work context (either as a manager or mentor, or when working in a team with colleagues). The focus of this involvement differs for every individual. Unresolved attachment crises from childhood may be powerful determinants of unsuccessful relationships in adulthood.

Levinson's theory on career development emphasises four development tasks for the young adult or "novice" (between 17 and 33 years) to grow into adulthood (between 40 and 60 years). The novice phase include sub-phases of novice adult and a transition phase, followed by a settling down phase. The four broad themes or development tasks are:

- define a dream (set life goals)
- find a mentor (an adult of stature to facilitate growth towards independence and away from parents and family)
- develop a career (all activities to find a stable career pattern)
- establish intimacy (find a supportive intimate relationship, such as a spouse).



**Figure 4.7** Mentor, executive and novice.

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The career development efforts during the early adulthood years are supported by people still being physically strong and their cognitive competencies are also very active. Usually they also have a strong sense of morality in which universal

laws and moral principles such as human rights, justice, equality and diversity amongst people are supported (Levinson, 1978; Schreuder and Coetzee, 2011).

Levinson (1978) also refers to the transition phase of novice stage as the “age thirty” transition, which may last for about three to five years (in current times it may last even longer). Jowell (2003) asserts that in the current times of continuous change, this period, now also referred to as the “quarter life quandary”, is a most difficult time for young adults because of the many changes to which they must answer and adapt in order to define themselves and realise their dreams. These development tasks could include valuing the self in comparison to others, earning a place in society and making a living, finding the right job and career, improving qualifications and work experience, and being able to cope with change and disappointments. The quarter-life quandary is mostly followed by a phase referred to as “settling down” during which people are more sure of themselves, having found their specific place in society and are en route to fulfil their career aspirations. During these times it is important for the young adult to be competent and be self-assured in order to be promoted and advance in jobs and a career.

Feldman (2002) asserted that in the current work environment with its frequent job changes, possible periods of unemployment, and the common necessity of taking low-skilled, unchallenging jobs with little chance for advancement, young adults have to be more flexible with regard to their competencies in order to adapt to a variety of people and situations. Much of young adults’ challenges in the modern world of work and change centres around the issues of being settled and established in a job or career (in Coetzee and Schreuder, 2011).

Levinson (1978, 1986) and Craig (1996) referred to research indicating that women experience more difficulty than men in realising their dreams and career aspirations, the biggest being to adjust to their husband’s aspirations, and to split themselves and their dreams between marriage, having children and a career.

Many unusual influences, adaptations and changes may mark this stage, such as starting late or very early with a career, family, the addition and loss of family members, divorce and the problems of being a single parent, children separating from home, possible unemployment and the family having to move for work purposes, which in itself can influence family stability in many respects. A redefinition of many issues will often be necessary, as in marriage, arrival of children, divorce and career changes.

Cognitively, the adult’s study, work and general life experience results in a

more mature, committed, responsible and integrated approach to problem-solving. In the assessment of managerial cognitive skills, the aspect of strategic thinking, that is the ability to do future planning whilst considering many factors and having a total view of things, is considered to be of crucial importance. Riegel (in Craig, 1996), for one, asserted that, in addition to the formal operations quoted by Piaget, the adult also develops a mode of *dialectical thinking*: The ability to consider and integrate opposing ideas and to be more realistic about issues than the adolescent or very young adult. According to Schaie, adult intelligence develops in a few stages, which evolve so that the adult becomes able to use all acquired skills in a flexible and responsible manner, in order to solve problems over the lifespan. Work roles in early adulthood may be recognised by growth in loyalty and commitment, but may require a mentor to give direction.

The nature of work in families also demands career adjustment. This is needed, for instance, in the case of many dual-career couples, and often demands a redefinition of family roles. However, the possibility of role conflicts within families, and between work roles and family roles, exists (Greenhaus and Parasurman, 1989). The mere fact that children of all ages are left at home whilst parents work has implications for family well-being and the development of children. The changing nature of work and the labour market also influence interactional patterns at home and in the family. For instance, many individuals and families use their homes as workplaces.

#### **4.6.3 Middle adulthood – consolidation, maintenance and change**

Middle adulthood can be considered as spanning the years from 45 to about 60. These are the stages of stability (from 45 to 50 years) and mellowing (50 years and older).

The main development tasks of middle age are the *maintenance and refinement of self-identity*, maintaining career standards and a standard of living, the maintenance of marriage and family relationships, the assistance of children into adulthood, the upholding of societal roles and the development of leisure activities. In occupational activities specifically, the employee is engaged in holding a job or position, updating knowledge and skills, and innovating work methods to be more efficient. Having consolidated, and still being creative, people can now direct their energies to the service of others, such as friends, family, and as a mentor to junior employees. The person still wants to be

generative and make contributions, but starts to look for other forms of recognition outside job and career activities. The emphasis shifts:

- from physical powers to mental powers or wisdom
- from sexuality in human relationships to socialising (which is an important aspect in marriage but could be a source of conflict, especially for unevenly aged married couples)
- from a very strong emphasis on work to the person him-/herself and his/her involvement in family life (Craig, 1996).

During middle adulthood physical changes and problems of age become more evident. More physical ailments may occur, decreases in energy and visual acuity, hearing, motor skills and reaction time, as well as internal physiological and hormonal changes, start to show in the mid-40s and early 50s, though these changes should not influence work performance in a critical sense

In general, cognitive abilities show a steady decline with an increase in age (especially after 50), notably in the more basic (inherited) aspects of intelligence, such as memory, inductive reasoning, the quick and accurate performance of tasks, speed of learning, and the ability to learn new contents and new relationships. However, the decline in old age of, for instance, memory, is often not as extreme as many people would have one believe. In some instances at ages around the 60s some individuals may be at their peak with regard to certain cognitive competencies, wisdom and integrated knowledge and the ability to manage people and processes. In this regard it is an unfortunate policy and practice in many work places to take such people out of organised and productive work and management roles (for example, retirement).

Older people's cognitive styles are often associated with wisdom and expertise based on much work and life experience, a larger variety of, and more integrated and practical knowledge of things, insight, judgement, reasoning, and practical problem-solving skills. In many cultures the wisdom of older people is highlighted in folktales. With regard to cultural differences, findings suggest that in Western cultures wisdom is often associated with cognitive aspects (for example, being experienced and knowledgeable), whilst in Eastern cultures wisdom is related to affective or emotional dimensions, such as empathy and emotional control (Takahashi and Overton, 2002; Baltes and Kunzman, 2003).

In general older people are often considered to be more suited to adjusting to quick changes in the work environment, because of their integrated ways of thinking, varied knowledge and flexibility in problem-solving and reasoning. For example, Schaie (in Craig, 1996) indicated that people who in general have

many opportunities, ongoing environmental and cultural stimulation, and a satisfying social and emotional life may well experience a high level of maintenance and growth in cognitive skills. It is not surprising that most management and executive jobs are filled by people in the middle-adulthood group, and also that in many fields such as writing and research such people have their most productive years after 40 or 50, and sometimes even as late as their 70s.

An interesting idea during the mid-life stage of life and careers, is the so-called “mid-life crisis” (see box on this topic). For many reasons, adults, especially men, in their late 30s and 40s and even 50s, experience a so-called “mid-life crisis”. This is often characterised by being dissatisfied with the self, life and work, own ethics and morality, questioning what has been achieved and a longing for the earlier younger years when all were possible. Strange and unusual behaviours may occur, for example, in clothing, life style, habits and attitudes. The concept of mid-life crisis has its supporters, but much research also do not support this idea and its assumptions (Levinson and Levinson, 1996; Cavanaugh and Blanchard-Fiels, 2006)

Psychosocial development in middle adulthood (from 45 to 60 years) will, in many respects, overlap with the developmental tasks of early adulthood (from 20 to 45 years) and with old age (over 60 years of age). This may happen, for example, in the level of financial independence, the amount of social support from friends, family and work colleagues, and health. This means that some middle-aged people are still establishing a career in order to have a good standard of living, to facilitate marriage and spouse relationships, help older and younger children grow, contribute in societal life, develop a pattern of recreation, adjust to growing physical and health concerns, and become more involved with ageing parental systems, as well as with making provision for their own old-age needs.

An important aspect of adults’ greater involvement in family and other social relationships is helping their adolescent children and family to find a place in the adult world. Some adults find this separation process and living with their children as equals easy, others experience some conflicts, often resulting in family stress. When all the children have left the home to make their own way, some parents may have the so-called “empty nest” experience. This is a time when parents must find new ways to relate to each other, and find other interests to give meaning to their lives and to fill their time. Reassessment of careers is an important aspect of the mid-life development stage, especially if there are

unresolved conflicts or changed values and circumstances. In South Africa, where major socio-political transformation is taking place, many people elect to or are forced to reassess their careers. Others, owing to job loss, have to set out on a new career direction, such as starting their own business. Many black South Africans have also started totally new careers, including taking on managerial positions that were previously unavailable.

### **The mid-life crisis: a creation of American culture and education?**

Both men and women aged between 45 and 50, and in some cases even during the early 40s and late 30s, may experience so-called “mid-life crises”. These can have a very disturbing influence, including menopause in women, with its related hormonal and health changes, and being sexually less active. A mid-life crisis may also relate to an identity crisis in the mid-life stages, for example a possible decline in career prospects, physical-health problems and self-doubt with regard to past and future achievements and contributions.

The concept of a mid-life crisis is viewed by some as a creation of American culture and education, popularised by the mass media (Hong, Ip, Chiu, Morris and Menon, 2001; Sterns and Huyck, 2001, cited in Cavanaugh and Blanchard-Fields, 2006). In other cultures, behaviours of such major transitions are explained according to changes and adjustments in social-role relations.

The so-called “mid-life crisis” may only be an age-related or normative development that occurs at about age 40, and which can be as painful an experience as adolescence, but not necessarily more critical than other life transitions.

Barnett and Pleack (1992) proposed that the mid-career stage manifests differently in four types of man:

- The transcendent-generative man experiences no mid-life crisis. Such individuals find accomplishment and happiness in life.
- The pseudo-developed man is not really in control, has a lot of unsolved problems and is confused, but will often role play as if everything is in order.
- The typical mid-life crisis man is really confused and cannot cope

with life's problems. This could be a temporary or a permanent way of life.

- The punitive-disenchanted man is totally unhappy for the largest part of his life, feels alienated and can seldom cope with life's demands.

In women these conflicts differ for reasons such as childbirth, late or later career entry, and role conflicts in the family, owing to the assumption of multiple roles as employee, spouse and mother, as well as factors such as being widowed or divorced and the socioeconomic pressures caused by these events.

#### **4.6.4 Late adulthood – disengagement**

This stage may vary from 60 and above, and because there are so many variations, people in this life stage, and in some instances career stage, should rather be studied as individuals. For the aged, the main development tasks are the upholding of some form of personal identity and dignity, the *finding of new meaning in life*, dealing with socio-emotional losses, the evaluation of spent lives, adjusting to physical and cognitive changes, dealing with increasing health problems, preparing for retirement, and establishing satisfactory living conditions. The aged must attempt all these amongst many changes and forced adjustments. Elderly people's main concerns are about health care, being financially independent, having social support and not being lonely. Maintaining a sense of identity must coexist with changing attitudes, yielding control to others, and being more dependent on family and other people. The negative scenario for older adults could be stagnation and despair if they are unable to develop and be content with an identity that helps them cope with crises (Craig, 1996; Schreuder and Coetzee, 2011).



**Figure 4.8** Social support for the elderly.

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The elderly are often misunderstood. For many reasons this stage is generally characterised by a steady decline in all domains; physically, cognitively, socially and emotionally, especially in the late 60s and beyond. Many of the aged do not experience physical and cognitive losses as being serious, because they adjust to changes by “working clever” or applying “selective optimisation with compensation” (Baltes, 1993), which means to do less better in more time.

For many older people retirement from work presents big adjustment problems, especially if retirement is not planned and prepared for (for example, in terms of income, social relationships and leisure activities). For others, their assessment of a life well spent may provide feelings of satisfaction and completeness. When people have stability, they may apply their wisdom as mentors of others and spend more quality time with their families and friends, a state which Erikson refers to as *ego-integrity*. Many “young” elderly (between 60 and 69 years old) and “middle-aged” elderly (between 70 and 79 years old) stay active in some way, still practising their physical, cognitive and social abilities. A serious problem for elderly people is being too focused on themselves, too busy complaining about the ills of old age and having a

preoccupation with retirement and death, which could render them unable to continue to enjoy life and to adapt to younger generations.

## **4.7 SUMMARY AND CONCLUSION**

This chapter is an introduction to concepts, theories and principles regarding general human development and career-development issues. Human development is seen as a continuous process through the lifespan in which people progressively, and during identifiable stages, develop certain physical, cognitive, moral and psychosocial competencies to be able to function in evolving life roles. Progressive human development is characterised by the hierarchical evolution of phases, differentiation from the general to the particular, and increased complexity and predictability. Human development progressively evolves through the physical, cognitive and psychosocial areas of human functioning, which are all integrated in career development. Genetic determination and environmental influences both have a telling impact on human development, whilst evolutionary theory tends to combine both genetics and social learning to explain the transfer of behaviours across time and generations.

Developmental stages of human life are characterised by a certain organisation in which certain developmental tasks happen at certain times. According to developmental theory, it is especially the early developmental stages that are critical or sensitive periods. Each developmental period is, however, characterised by psychosocial crises, which must be solved constructively for healthy development, maturity and ego-integration to evolve. Human development also evolves with regard to the development of work orientations, career tasks and transitions, of which the ultimate goal is to achieve a self-identity which transfers to realistic career aspirations, career maturity, successful career decisions, job and career satisfaction, career wisdom, and feelings of a life well spent.

The level of successful life development, including career development, can be assessed from different approaches. However, all evaluations should consider the influencing factors in the context of each person's lifespan development, which include biological-determined changes and cultural and social influences. In general, according to Pulkkinen, Ohranen and Tolvanen (1999) successful childhood development with regard to emotional and behavioural control, school success and a positive family environment correlate positively with good psychosocial functioning in adulthood, including aspects such as a stable career,

controlled drinking, socialisation, self-esteem, well-being, good financial standing and general satisfaction with life. In contrast, poor emotional and behavioural control, a poor school academic record and an unfavourable family environment in childhood prove to be risk factors for effective adult socioeconomic behaviours, such as career success and employment. Related to these findings, other criteria to assess successful development revolve around aspects such as successful resolution of psychological crises, which will lead to outcomes that relate to adjustment in society, and will also lead to the perception of having a meaningful life and being integrated with the universe (Pulkkinen, 2000).

The biggest challenge for future generations is not only to understand and recognise natural differences and similarities between people and groups, but also to create the social conditions in which all individuals have a fair chance to realise their potential. Much research is necessary to further understand the interactions between maturation and social-learning processes. In the midst of changing work opportunities, changing attitudes about work, and the changing nature of the working environment, careers and jobs, it is a huge task to redefine career concepts and career development (Howard, 1995; Furnham, 2000). Do the assumptions of progressive life and career stages or transitions still apply, if for many a meaningful life and a secure job may always be only a dream? And what are the cultural implications of existing career development and career-choice concepts? In this regard in the modern fast-changing age of work, traditional career-development theories and the ideas with regard to career-development may not adequately make provision for career-development issues, especially if applied in the previous and current social and disadvantaged contexts in countries such as South Africa. (Hook et al., 2002; Hook et al., 2004).

A reassessment of development concepts is also necessary in the light of the increasingly prominent role in working life of women and disadvantaged groups, and the new generation of youth, employees and business entrepreneurs for whom existing career-development concepts may not be appropriate. Moreover, many people will retire earlier, even if they can still be very productive, others will be forced to work into old age. Millions of people will earn a living in “informal labour markets”, outside the formal structures of established positions and organisations. It seems as if career psychologists and other “educators” have a role to play in establishing new mindsets in people, to enable them to be creatively and entrepreneurially oriented, and to be more responsible for their own career training and development.

## 4.8 ASSESSMENT ACTIVITIES

### Multiple-choice questions

1. Choose the correct option. Human development ...
  - a) only entails certain life and career stages
  - b) is characterised by distinguishable hierarchical critical events
  - c) must only be understood by a lifespan approach
  - d) primarily refers to predetermined biological changes
  - e) refers to the progressive age-related changes and stages across the lifespan.
2. To which statement does maturation refer?
  - a) such behaviour at about the age of 18 to 21
  - b) the solution of developmental conflicts and wisdom
  - c) the integration of all domains of development
  - d) changes that are due to genetic or biological determination
  - e) the development of exemplary morality and independence.
3. Which statement is **not true** about Piaget's theory of cognitive development?
  - a) Cognitive development is based on normative-age graded influences.
  - b) The main characteristics of development and learning experiences apply.
  - c) Training an employee to use a new computer-programming language is an example of accommodation.
  - d) Understanding relationships is best achieved during the concrete and formal operational stages.
  - e) Cognitive adaptation involves assimilation and accommodation.
4. A young adult experienced many uncertainties and problems to decide what to study or what job to select to start a working life. Once he was in a job he soon was criticised for not performing according to expectations, which make him feels quite incompetent. According to psychosocial theory the employee may have developed a core pathology related to:
  - a) trust and mistrust
  - b) identity and ego or role diffusion
  - c) ego-integrity and despair
  - d) industry and inferiority

- e) intimacy and isolation.
5. A 30-year-old employee is unhappy in her job. However, despite professional advice, she never made an informed choice during her initial career choice. She now has tried various jobs without happiness and success. This is an example of:
- a) a diffused career choice
  - b) a foreclosed vocational identity
  - c) a normative history graded influence
  - d) a punitive-disenchanted career choice
  - e) a critical career development event.

### **Answers to multiple-choice questions**

1 = e; 2 = c; 3 = a; 4 = d; 5 = a

### **Issues for discussion and practice**

1. Describe developmental domains and refer to important developmental influences.
2. Explain why you find Erikson's psychosocial developmental theory or any other theory or concept valuable or not, if you consider your own behaviour or that of a child or adult whom you know well. Give reasons for your answer.
3. With examples, explain how the various human development stages are important for adult and career development.
4. Using various theories, explain the value of cognitive and moral development for adult career development.
5. By considering the various career stages, analyse your own career-development transitions and describe the critical constraints and facilitating factors.

### **CASE STUDY**

Peter's parents are wealthy and drive their own prosperous marketing business in a city area. Before starting a business, Peter's parents worked as salaried employees in various firms. Peter is an only child, obtained a BCom-degree with a view to assist in the family business, which was his parents' wishes and expectations. His

parents supported him in a lot of things, also financially, and in general Peter always got what he wanted. However, up to now, Peter did not have much success in the firm and the various jobs he tried, even if he dreams of also becoming a successful person like his father and mother. According to Peter, affirmative action and government's actions which favours disadvantaged groups are keeping him back in his career and business plans. He once or twice unsuccessfully tried to obtain a loan to start his own used car sales enterprise. However, two small business loans organisations and various banks rejected his applications, and his father also did not want to support him, his father asserting that the used car sales enterprise in South Africa are saturated and risky and not a good venue to be successful or making a good income.

Peter always expected that he will follow his parents in the business and his parents have mentioned this many times. Peter nurtures a notion that being the only heir he does not see the necessity to start all over again. He worked in the family business a few times, but left again, because his and his father's ideas in and about business are quite different, and they often had heated arguments – also in the presence of other employees. Nowadays, his father do not often mention the possibility of Peter succeeding him in the family business enterprise. Both his parents are of the opinion that Peter is not a “businessman” or entrepreneur. His father would rather have the business managed by two of his nephews with business acumen, whilst Peter will enjoy certain financial advantages by being a non-working director in the business.

Peter, who is now 35 years old, feels frustrated and angry at not making the expected progress in his career. As a matter of fact, Peter now regrets his past actions not accepting invitations to attend workshops or using other opportunities and processes which would have helped him exploring his future career and work life. He now wonders whether he is in the wrong career direction and should have followed a career counsellor's advice to study law and establishing his own legal firm. What also frustrates him is that most of his friends from school are now settled in their careers, marriages or other intimate relationships. He was married once, got divorced and has a 10-year-old child, who he sees every other weekend and holiday.

Peter is now a used car salesman, experiencing difficulty to make ends meet, even if he still receives a small allowance from his father. Peter is also worried about the example he sets for his son. He is now living alone in a flat and has tried quite a few romantic relationships without success. He, though, is quite a social person and often enjoys parties and social gatherings with his male and female friends. His father is of the opinion that his fears and uncertainties in his career also caused his uncertainties in life and relationships. His mother asserts that he often left relationships, because other parties experience him as uncertain, dependent and irresponsible and not being able to offer much to a possible spouse.

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1. What life stage/s can you identify and describe in Peter's development?
2. What types of problems does Peter experience? How do you think he will or must resolve the psychosocial and career crises which he experience?
3. Describe the developmental influences in Peter's life and development.

## **CHAPTER 5**

# **Learning**

*Dirk Geldenhuys and Gugu Ngokha*



## [Introduction](#)



What is learning?



## The learning process



## The adult learner



The training process in the work context



[The learning organisation](#)



## Summary and conclusion



## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- demonstrate an understanding of the learning concept
- explain, compare and apply the principles of classical and instrumental conditioning
- describe and evaluate the effectiveness of different reinforcement schedules and provide examples
- describe the effectiveness of punishment
- explain cognitive learning
- describe social-learning theory as a combination of the behaviourist and cognitive approaches
- explain how learning through reorganisation and reconstruction of experience takes place
- demonstrate an understanding of the concept of an adult learner
- describe the application of the different learning principles
- distinguish between the application of different training techniques
- demonstrate an understanding of the transfer of learning
- describe the evaluation of training as the last phase of the training process
- discuss the importance of training and development in the workplace
- explain the essentials involved in a “learning organisation”.

## 5.1 INTRODUCTION

Some of the most common complaints of learners are that they experience study material as not having any practical value, that they are compelled to attend a course at work that they consider as irrelevant, and that the quality of the course material, presentation or training techniques is so poor that attending seems a waste of money.

In the past, training was done for the sake of training. People who were appointed in training positions were often not well equipped and qualified for their tasks. Fortunately the training scene in South Africa has changed. The implementation of legislation, a qualifications framework, recognition for prior

learning and the emphasis on outcomes-based learning provide evidence for this new dispensation. Companies know that they depend on competent people to be competitive in the global market. Skills-development plans are set up and facilitators are appointed to ensure that learning in organisations is effective and efficient. Leading companies change their cultures into “learning organisations” in order to provide their employees with opportunities for lifelong learning.

If learning is to make a meaningful contribution to industry, it is important that people facilitating learning are well equipped for the task. They have to know what learning is all about, how people learn, how to accommodate adults in the learning process, and how to apply learning principles in the development of training programmes. The facilitation of learning is an important function of I-O psychologists. They are involved not only in the training and development of employees, but also in the training of trainers.

The *aim* of this chapter is to provide a basic knowledge of learning concepts and principles on which training theories and models, and the practice of training, are built.

## 5.2 WHAT IS LEARNING?

One might hear a person say, “I saw them learning.” Can one really see somebody learning? What if the person “seen learning” is tested afterwards and it turns out that no learning seems to have taken place, for example if the person fails the test so badly that he/she would probably have attained the same results in a test before the “learning”? It is clear that the learning process cannot be observed or studied. All that can be measured is performance in the execution of some task, the solving of a problem or some other activity in which the individual draws on what has been learned. Hence the activities derived from learning, rather than the learning process itself, are visible. Learning refers to the *potential change* in behaviour, whereas performance refers to the translation of this potential into behaviour (Hergenhahn and Olson, 2005; Weiten, Dunn, and Hammer, 2012).

From a psychological perspective, one studies behaviour so that one can make inferences concerning the process (learning) believed to be the cause of the behaviour. If one wants to know if learning has taken place, one determines if behaviour has changed as a result of an experience. It is, however, important that the behavioural changes observed are not attributed to temporary body states such as those caused by illness or fatigue. Although such factors may modify

behaviour, their effects do not last long, whereas what is learned is only forgotten over time, or until new learning displaces old learning (Hergenhahn and Olson, 2005). Thus with learning, the change is relatively permanent.

Another question that needs to be answered is whether what is learned results in changed behaviour immediately. To answer this question one can consider the example of paramedics. They learn how to save lives at the scene of a collision by watching videos and listening to lectures, but do not translate that learning into behaviour until they are involved in a real emergency. One can say that the potential to save lives resulted from learning, although behaviour was not immediately affected. This form of learning is called latent learning.

It is important to distinguish between learning and performance. Whilst behaviour is necessary to determine whether learning has occurred, its absence does not imply that learning has not occurred. Even when trainees have demonstrated learning by means of performance in the training environment, the learning will not necessarily transfer to the work situation. In a training course, for example, individuals acquire the knowledge of purchasing and consumption that they may still need to recall and apply in future related behaviour. Since learning is seen as the acquisition of relatively permanent behaviour, the learning acquired in a training course provides the potential for effective performance in later actual work situations. (Robbins, 2004; Hergenhahn and Olson, 2005; Coetzee and Schreuder, 2010).

## **5.3 THE LEARNING PROCESS**

The learning process is described from different viewpoints, based on the different schools of thought in psychology. From a behaviourist point of view, the learning process is described in terms of conditioning (classical or operant). Other approaches to the learning process are the cognitive approach, the social-learning approach and the approach that views learning as reorganisation and reconstruction of experience.

### **5.3.1 Classical conditioning**

The term classical conditioning is commonly associated with Ivan Pavlov, whose experiments with dogs illustrated the importance in learning of the association of stimuli and a resulting response (Kowalski and Westen, 2011).

In humans, trauma or shock can also cause extinction of learned behaviour. A temporary loss of conditioned responses may result in inhibition of behaviour,

for instance in cases of extreme stress and temporary amnesia. After a while (for example, after a period of rest) there may be spontaneous recovery. In other words, the conditioned response may recur after having been extinguished. This shows that the extinction of conditioned reflexes is not necessarily permanent. The conditioned response can be facilitated by a fresh stimulus similar to the unconditioned stimulus.

Various stimuli and types of situation can evoke the same response through stimulus generalisation. For example, an emotional response learned through contact with one person can be generalised to include all members of the community or country to which that person belongs. The closer the resemblance between stimuli, the greater the generalisation.

Discrimination between stimuli is learned through differential reinforcement of the response. This is achieved through alternating stages where, firstly, the unconditioned stimulus (for example, food) follows the conditioned stimulus (for example, a bell with a certain pitch), and secondly, the unconditioned stimulus (for example, food) does not follow another, though similar, stimulus (for example, a bell with a different pitch). After the repetition of this procedure, the response follows only the stimulus that was reinforced.

### **Classical conditioning: the basics of Pavlov's experiments with dogs**

A hungry dog was shown food, which was termed the unconditioned stimulus (US). The dog's saliva began to flow. This was called the unconditioned reflex (UR), as it happened automatically, independent of prior learning processes. In the second part of the experiment, a bell was rung just before, or whilst the food was shown to the dog. The dog's saliva flowed again. The process was repeated several times. In the third stage the bell was rung without any food being given. Salivation still occurred. The bell was called the conditioned stimulus (CS) and the flow of saliva a conditioned reflex (CR).

An association had been established between stimuli in which the conditioned stimulus, initially unrelated to salivation, triggered the same response as the unconditioned reflex. The bell evoked an anticipation of food. Thus the conditioned stimulus served to reinforce the conditioned reflex. However, when the food was

repeatedly withheld, the ringing of the bell in the absence of food ceased to cause salivation. Extinction of the association between the two stimuli, as well as the conditioned reflex, had occurred either because of insufficient repetition or excessively long intervals in the process of conditioning.

During a storm, some of Pavlov's dogs ended up in flood water and this traumatic experience also caused the extinction of conditioned reflexes.

A form of classical conditioning in which a third stimulus produces the same response as the conditioned response is known as higher-order conditioning. The conditioned stimulus (for example, a bell) serves as the conditioned stimulus for a new stimulus (for example, a light). By pairing the two stimuli, the light also becomes a conditioned stimulus producing the response.

Classical conditioning can be used to explain emotional behaviour, for example the acquisition and elimination of fear, or our attraction and aversion to many stimuli. Many behaviours are shaped by the pairing of stimuli. A person may find that certain stimuli, such as the smell of a cologne or perfume, a certain song or, a specific day of the year, results in fairly intense emotions. Yet it is not the smell, the song or the date that are the cause of the emotion, but rather that it has been paired with something – perhaps a mean ex-boss or a first love. One makes these associations all the time and often does not even notice the power that these connections or pairings have on one.

### **5.3.2 Operant conditioning**

Classical conditioning paved the way for the operant approach to learning. The term is chiefly associated with B.F. Skinner, whose experiments with rats and pigeons demonstrated how behaviour can be changed by controlling the learning process. Operant conditioning (also called “instrumental conditioning”) differs from classical conditioning in that the latter merely consists of an association of stimuli that elicits a particular response without necessarily achieving anything, whereas instrumental learning implies the acquisition of a reaction to obtain meaningful results. For instance, a young child may express frustration by throwing a tantrum, but through parental rebukes learns that this behaviour is not profitable and solves no problems. Through the reward of “correct” behaviour the child acquires acceptable modes of social conduct and learns how to utilise

his/her environment effectively. In essence, instrumental learning means that individuals gain control over their environment.

*Reinforcement* in the form of reward or punishment is of cardinal importance in this method of learning. The first stimulus triggers a particular response, because this response is consistently reinforced by rewards during the conditioning process. A reward is a second stimulus that is pleasurable or positive. Conversely, a first stimulus may result in inhibition or avoidance of a specific response, because the response was repeatedly negatively reinforced by a second stimulus that was unpleasant.

In addition to the positive or negative reinforcement of the response through a second stimulus (primary reinforcement), a third stimulus, associated with the reinforcing stimulus, can strengthen the response further. This is known as secondary reinforcement. For instance, a person learns to fulfil a work role (first stimulus) effectively (response), as it is primarily reinforced by constructive guidance and praise from the supervisor. The supervisor's attitude towards the person and his/her performance has a secondary effect, namely the respect of colleagues, which gives him/her more status in the work group. On the one hand secondary reinforcement results from the response, which may cause the response to recur, and on the other hand it enhances the value of primary reinforcement. Higher status in the work group gives even more weight to the praise of the supervisor.

Discrimination learning is a form of operant learning that involves learning to discriminate between settings in which a particular behaviour will or will not be reinforced. Thus, an organism becomes conditioned to respond to a specific stimulus and not to other stimuli (Ormrod, 1999; Hergenhahn and Olson, 2005; Kowalski and Westen, 2011). For example, a new hairdresser may initially approach all the customers who enter the business, but over time he/she learns to respond to a few customers who are allocated to him/her.

#### **5.3.2.1 Reinforcement schedules**

The role of reinforcement in learning was formulated primarily by E.L. Thorndike in his *Law of Effect*, which posits that behavioural reactions are acquired when the consequences are agreeable, but are not learned when the consequences are disagreeable.

The relationship between an operant response and the probability of reinforcement is known as a *schedule of reinforcement*. Schedules of reinforcement are the accepted rules that are used to present (or to remove)

reinforcers (or punishers) following a stipulated operant behaviour.

Different *schedules of reinforcement* produce distinctive effects on operant behaviour. There are two major types of reinforcement schedules, namely continuous and partial reinforcement schedules (Lieberman, 1990; Walker, 1995; Weiten, 2011):

- A continuous reinforcement schedule is one that provides reinforcement after every correct response. Continuous schedules are useful in the learning of new behaviour, especially when the goal is to accentuate the relationship between a discriminative stimulus and the response associated with it.
- In a partial reinforcement schedule (or intermittent reinforcement schedule) only some aspects of the desired response are reinforced. Partial schedules have the advantage of often producing more responses at a much higher frequency than continuous schedules. Behaviours that are reinforced through partial schedules also have greater resistance to extinction. For example, an employee may have become used to periods of time when he/she is not being reinforced for a behaviour. Partial reinforcement schedules are useful for the maintenance of learned behaviours and for increasing the exhibition of those behaviours once they have been learned (Walker, 1995).

The acquisition of various responses in partial reinforcement can be affected by scheduling reinforcement according to a fixed-ratio schedule, where a reward is offered only after a certain number of responses (such as the payment of a bonus on completion of a task), or according to a fixed-interval schedule, where a reward comes after a specific time has elapsed, irrespective of the number of responses (such as the payment of annual salary increases, whether merited or not).

The two schedules may be combined or varied through variable ratio and interval schedules, in which case the number of responses rewarded or the periods of reinforcement fluctuate. The four different schedules are presented in Table 5.1.

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**Table 5.1**

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## Reinforcement schedules

Schedule		Description
Fixed	Ratio	Rewards after constant number of actions
	Interval	Rewards after constant amount of times
Variable	Ratio	Rewards after variable number of action
	Interval	Rewards after variable amount of times

The schedules have different effects on the learning process or work situation to which they are applied, as the box below explains.



## Applying the schedules

The four schedules have different effects on the learning process or work situation:

- A fixed-ratio schedule generally gives rise to relatively high performance – the sooner a task is completed, the sooner the reward is received, and the more tasks are done, the more rewards there are. Consider, for example, the work of a farm labourer paid for piecework.
- A fixed-interval schedule tends to result in behaviour that offers a measure of resistance to extinction and shows fluctuations during the interval. Performance tapers off directly after reinforcement, whilst it peaks just before reinforcement is offered again. Consider the office worker who has the habit of allowing files to pile up until just before a report on them has to be compiled at the end of the week or month.
- A variable-ratio schedule usually gives rise to high, consistent performance over long periods, as the worker is uncertain when a reward will be given and therefore perseveres with the task. A salesperson will persevere with efforts at door-to-door selling in spite of the fact that he/she is not successful with every client.
- As a rule a variable-interval schedule results in relatively high uniform performance with high resistance to extinction. For example, a person who does not know when merit assessments are going to be conducted may therefore continue to produce work of a high quality.

In the application of all four schedules a tapering off of performance may occur, as they encourage evasion or withdrawal from the situation. It occurs in the case of both fixed-and variable-ratio schedules if tasks are overloaded (that is if too many responses are expected too quickly with too few breaks in between, as for example in the case of a secretary who is overloaded with work). Fixed-and variable-interval schedules reveal this tapering off when overlong periods pass between reinforcements, such as the number of years between promotions. Behaviour learned through scheduled reinforcement is usually more resistant to extinction than behaviour

that is continuously reinforced by means of a reward after every correct response. Behaviour learned in childhood through various reinforcement schedules will continue to occur in adulthood, although it is no longer rewarded.

Skinner believed that the causes of behaviour are to be found in the environment and not in the individual. He rejected concepts such as self and autonomy as behavioural determinants. He described an imaginary utopian society where human behaviour is regulated in accordance with the principles of instrumental learning (Hergenhahn and Olson, 2005). The implication is that people can be wholly manipulated by those who have the power to do so. Instrumental learning has been criticised on the grounds that it generalises a method of learning that is not necessarily applicable to all individuals, and it underestimates the role of cognitive factors in the learning process.

#### **5.3.2.2 The effectiveness of punishment**

In instrumental learning, punishment refers to a stimulus that diminishes the probability or strength of a response preceding it (Kowalski and Westen, 2011). Not only does it comprise the administering of unpleasant stimuli, but the withholding of stimuli may also be experienced as punishment (for example, the retraction of fringe benefits or emotional support, and the disapproval of people whose approval is desired).

The effectiveness of punishment is often questioned because it may cause emotional reactions that harm the learning process. Intense punishment stimuli that are painful or terrifying may also be queried from a moral point of view because they conflict with humanistic principles. Individuals also differ in their reactions to and interpretation of punishment. The following findings with regard to punishment are generally valid:

- The more intense the punishment, the more effective it is. This may sometimes be true to the extent that the effect is irreversible. The danger of intense punishment is that it could cause associated conditioned emotional reactions, which in the long term may have more far-reaching implications than the behaviour that was originally punished (for example, a child's negative feelings towards the parent meting out the punishment).
- Light punishment may suppress undesirable behaviour temporarily, but it will occur again later.

- The more consistent the punishment, even though it may be light, the more effective it appears to be.
- The closer the punishment is in time and place to the undesirable behaviour, the more effective it is.
- The deeper a pattern of behaviour is entrenched as a habit, the less effective the punishment will be.
- People can adapt to punishment and this lessens its impact.
- Punishment for an undesired response may be effective if it is followed by positive reinforcement (a reward) for an alternative response. In this way behaviour is shaped so that not only does one learn what not to do, but also what should be done in a given situation.

With regard to reinforcement, it is better to employ strategies that result in the withholding of rewards than those that result in punishment (Swanepoel, Erasmus, Van Wyk and Schenk, 2003; Weiten, 2011). Skinner used this reinforcement strategy to alter the already existing Law of Effect in order to downplay the role of punishment in changing behaviour.

He was convinced that behaviour could be altered by simply using positive and negative types of reinforcement. Negative reinforcement is not equated with punishment. When either positive or negative reinforcement is used, a desired behaviour tends to increase. When punishment is used, a behaviour is generally more likely to decrease.

### **ETHICAL READER: Corporal punishment of school children**

In many countries, corporal punishment of school children as a way of modifying behaviour has been either officially or unofficially identified as a sanctioned form of institutional child abuse. Some authors believe that, in an atmosphere free of abusing and demeaning acts, and in a classroom characterised by positive mutual regard, teachers can maximise their effectiveness as teachers and students can maximise their effectiveness as learners (Dubanoski, Inaba and Gerkewicz, 1983; Youssef, Attia and Kamel, 1998).

### 5.3.3 Cognitive learning

The cognitive approach to learning is primarily based on the learning model of E.C. Tolman. Between the perception of a stimulus and the acting out of a response, a series of cognitive activities takes place. The response to the stimuli depends on the perception of whether such a response will lead to the achievement of the desired goal or not, and towards solving problems in decision-making.

This implies that, according to the cognitive approach, learning involves more than the acquisition of new associations of stimuli and responses (as is the case with classical conditioning), and more than gaining control over the association of stimuli, responses and rewards (as is the case with operant conditioning). It is the acquisition of new knowledge about the world and an ability to perceive objects in the environment as means towards gaining desired goals. People learn what is in their environment and gradually develop a picture of it. This picture is called a cognitive map. The cognitive map thus represents past relationships between stimuli, behaviour and goal accomplishments (Hergenhahn and Olson, 2005). Consumers, for example, are viewed as information seekers who use logical and perceptual relations amongst events, along with their own preconceptions, to form a sophisticated representation of the world.

The cognitive approach relates closely to contemporary theories of motivation, such as the expectancy theory of V.H. Vroom (Camp, Blanchard and Huszycz, 1986; Kowalski and Westen, 2011). Vroom's theory implies that people are able to store the relationships between past behaviour and its consequences in combination with current information to make inferences about the consequences of future behaviour. Cognitive theories are thus concerned with how and why people decide to do things, and psychologists attempt to determine this by studying the way people view various activities as perceived opportunities to pursue desired goals.

To differentiate between the operant approach and the cognitive approach, it can be said that the operant approach describes the physical events surrounding behaviour and its modification, whilst the cognitive approach attempts to describe the mental processes through which learning and behaviour are connected (Camp, Blanchard and Huszycz, 1986). The difference can be illustrated by the example in the box below.

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**Differentiating between the operant approach and the**

### **cognitive approach: an example**

A bus driver helps an elderly person to get onto the bus and is complimented by the passengers on the bus. Thereafter he makes an effort to help all elderly persons. From a behaviourist approach, the helping of the elderly person was positively reinforced by the compliments of the passengers. Having been positively reinforced, the behaviour is repeated whenever the bus driver sees an elderly person getting on the bus. From a cognitive perspective, however, one could conclude that the bus driver helps elderly people in order to be complimented by the passengers, because being complimented is highly valued.

#### **5.3.4 Social learning**

Social learning is primarily based on the work of Albert Bandura and his associates (Weiten, 2011). Their perspective can be considered a bridge or a transition between behaviourist learning theories and cognitive learning theories. On a behavioural level, their perspective shares with operant conditioning the notion that behaviour is affected by its external antecedents.

On a cognitive level, it stresses the importance of the learner's ability to symbolise: to reason, imagine, and understand cause-and-effect relationships. Social-learning theory, focuses on the learning that occurs within a social context, which is described by the terms "observational learning", "vicarious learning" and "modelling". According to this theory, behaviour is learned simply through observation of other people's behaviour and the outcomes of those behaviours. Learning can occur without a change in behaviour. Behaviourists argue that learning has to be represented by a permanent change in behaviour. In contrast, social-learning theorists say that because people can learn through observation alone, their learning may not necessarily be shown in their performance. Thus, according to the social-learning theory, learning may or may not result in behaviour change. What has been learnt is remembered or stored through visual images and through verbal codes and later appears in applicable situations.

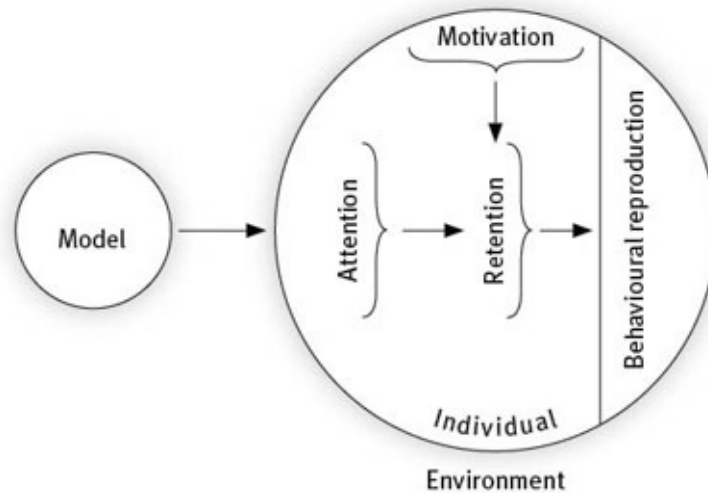
Social-learning theory has been applied extensively to the understanding of aggression and psychological disorders, particularly in the context of behaviour modification. Bandura (1969) believed aggression reinforced by family members was the most prominent source of behaviour modelling. He reported that

children use the same aggressive tactics that their parents illustrate when dealing with others. Affection or aggression that is evident when parents communicate with each other serves as a model for a teenager's communication with the opposite sex. In the work situation, the model might be a manager or colleague who demonstrates desired behaviour. Mentors or senior workers may also act as important models, especially for new employees.

Through observational learning, employees watch models executing some skillful behaviour. From such observation the employees watching may learn some part of the skill. However, by simply observing a task, only some of its functional components may be learnt and others missed. Only through practice accompanied by constructive feedback can people learn to perfect their skills. Bandura developed the concept of reciprocal determinism or triad reciprocity to explain how interactions between the person, the environment and the person's behaviour influence each other, and are in turn influenced. (Robbins, 2001; Swanepoel, Erasmus, Van Wyk and Schenk, 2003; Schiffman and Kanuk, 2004; Hergenbahn and Olson, 2005).

The person, the environment and behaviour all interact to influence the individual and his/her behaviour (Bandura, 1977a, 1986, 1989). This concept implies that personal factors in the form of environmental influences, behaviour, and cognitive, affective and biological events, work together as determinants that impact each other bidirectionally. The outcome implies that individuals are both "products and producers of their own environment and of their social systems" (Bandura, 1986, 1997).

Social-learning theory explains human behaviour in terms of continuous reciprocal interaction between cognitive, behavioural and environmental influences. Bandura mentions four processes underlying observational learning that are necessary before an individual can successfully model the behaviour of someone else (Camp, Blanchard and Huszczo, 1986; Greenberg and Baron, 2000; Robbins, Odendaal and Roodt, 2003; Kowalski and Westen, 2011). These are attentional processes, retentional processes, behavioural-reproduction processes and motivational processes (see Figure 5.1).



**Figure 5.1** The processes of social learning.  
Source: Adapted from Camp, Blanchard and Huszczo (1986)

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#### 5.3.4.1 Attentional processes

Learners have to pay attention to the model. Models who are more likely to get the learner's attention will be imitated more frequently and more precisely than other models. Models can also purposefully call attention to themselves or to key learning points to facilitate learning.

#### 5.3.4.2 Retentional processes

The information being observed is then processed for retention. The initial phase of retention is the coding of information into cognitive symbols that can be stored, retained and retrieved. It can then be manifested behaviourally in a language. This provides the learner with a model that specifies how relationships between behaviour and its consequences can be retained and recalled to influence future behaviour, even if the behaviour was not reinforced or performed by the learner (Camp, Blanchard and Huszczo, 1986).

After the learner has symbolically coded the observed behaviour, he/she can visualise or imagine him-/herself actually engaging in the behaviour. The learner thus develops a verbal description or mental image of the model's actions in order to remember them. This process is called symbolic rehearsal. It is akin to practising something in the mind. Although symbolic rehearsal may not always occur, the transfer of learning will be improved if it is practised by learners, and if they are assisted to develop their own symbolic codes.

#### **5.3.4.3 Behavioural-reproduction processes**

After the learner has observed the behaviour of the model and imagined him-/herself doing the same, the behaviour has to then be practised.

This practising proves that the learner can perform the modelled behaviour. Whilst the final manifestation is affected by the environment in which it occurs, part of the behavioural reproduction is also internal to the learner, because the reproduction of the learned behaviour sequence improves its retention (Camp, Blanchard and Huszycz, 1986).

#### **5.3.4.4 Motivational processes**

Learners have to have some motivation to learn from the model. Learning thus finally depends on the feedback from the environment in response to the behaviour.

Whether the environment produces positive, negative or no consequences in response to the behaviour, that feedback will influence that behaviour in the future.

Social learning plays an important part in the formal training programmes of many organisations. It also occurs in an informal manner, as when the traditions, culture and norms of organisations are learned and integrated into the behaviour of employees, especially during the socialising process of new employees (Greenberg and Baron, 2007). Culturally relevant education can help learners validate their cultural identity and use their cultural knowledge as a basis for personal and social transformation (Guy, 2002).

### **The practical application of theories and principles of learning in consumer psychology**

Classical conditioning usually applies when marketers make use of well-known and admired individuals to advertise a product in order to condition consumers to have positive feelings about the product. Learning also occurs through trial and error, as observed by Skinner. Habits are formed as a result of rewards (resulting from satisfaction with the outcome of a behaviour) and even punishment (resulting from a lack of satisfaction with certain behaviours). Instrumental learning occurs when consumers try different brands, models and styles until they find the one that “fits”. In order to keep consumers, a

marketer or business must maximise positive reinforcement. This can be done through ensuring that the product delivers on its validity and reliability, and also through the utilisation of different schedules of reinforcement.

Through the use of repetition, the strength of association between a conditioned stimulus and an unconditioned stimulus can be increased. By scheduling media exposure for an advertising campaign, marketers can use repetition to a company's advantage. This should, however, be done with care, as too much repetition can lead to advertising boredom. Consumers may become annoyed with repetitive advertisements and develop a negative image of the product as a result.

The process of learning relies not only on repetition, but on people's ability to generalise what they have learnt. When an individual is presented with a stimulus that is slightly different from the stimulus used in the original learning process, there is a strong likelihood that the individual will respond in the same way. Manufacturers undertake to make their generic /store brands similar in appearance to established name brands. In this way they utilise the principle of generalisation to take advantage of a well-known and trusted brand.

Cognitive learning applies when mental activity (thinking and problem-solving) is utilised in order to appeal to consumers. In line with this mode of learning, marketers can invest in strategies that emphasise the importance of providing information to consumers.

Consumers engage in more than just learning through passive, conditioned behaviour. They actively search for information and evaluate this information, making decisions about what is best for them as consumers.

The act of providing information can double-up as a promotional strategy as well. Marketers can draw on both cognitive and operant-conditioning theories by providing information about a product. An advertising campaign may draw on cognitive theory by highlighting the benefits of associating with a company or its products whilst also drawing on operant-conditioning theory by providing rewards such as an introductory special offer.

Social-learning theory applies when consumer behaviour is

influenced by aspects of social significance. For example, an advertisement may use role models who tend to be people consumers admire because of traits such as appearance, accomplishment, skill or social class. Another alternative form of observational learning involves the representation of the negative consequences of not using the advertised product.

Source: Adapted from Goldstein (2007), Coetzee (2008) and Weiten (2012)

### **5.3.5 Learning as reorganisation and reconstruction of experience**

In reaction to the emphasis on the application of a cognitive-learning theory in organisational practice, the individual and social perspectives on learning are integrated in an approach viewing learning as a reconstruction and reorganisation of experience (Elkjaer, 1999; Easterby-Smith and Lyles, 2003).

This approach is especially relevant for I-O Psychology with the recent emphasis on concepts such as lifelong learning, learning from experience, and the learning organisation.

This approach to learning theory is *problem-oriented*. People encounter a problem that makes them stop and think because of confusion or doubt. Purposeful inquiry leads to reflection on the problem and the solving of the problem for the time being. Instead of the dualist separation of doing and knowing, action and thinking, learning implies a continuity of acting and knowing. The learner thus learns through reorganising and reconstructing his/her experience. In this sense, learning from experience does not only involve a mere experience or action, but also implies reflection on former actions in order to anticipate further consequences. Although it is the individual who learns, the whole process is embedded in a social practice. Learning results in a continuous process of personal growth, as well as in social changes, such as organisational changes (Elkjaer, 1999; Easterby-Smith and Lyles, 2003).

Social changes are also implicated by postmodern approaches, which emphasise reconstruction of experience. The individual learns in social and cultural contexts via discourse, incorporating the role of language in reconstructing former experiences or constructing new knowledge.

### **5.3.6 More recent theories**

The availability and use of digital technology has already severely impacted on

our lives and the way we work. This rapid growth had made knowledge more easily available and this has led to the development of new learning theories. Whereas the traditional theories viewed learning as an individual process, more recent theories acknowledge the social nature of knowledge and view learning as a social process where knowledge is socially constructed or gained through networking.

One of the newer theories is the *social constructivist learning* approach. From a constructivist perspective, learning is explained as an activity with the aim of constructing new meanings (knowledge) about our world. Social constructivism refers to learning as the result of active participation in a social community where new meanings are co-constructed by the learner and the community. Knowledge is then viewed as the result of consensus (Brown, 2006).

Social constructivism emphasises the following principles (Anderson and Dron, 2011):

- the use of existing resources for learning such as previous learning
- context in the development of knowledge
- learning as an active process
- the role of social tools such as language in constructing knowledge
- the capacity of learners to evaluate their own learning
- learner-centred environments
- use of multiple perspectives
- subjecting knowledge to social validation and applying knowledge in real life contexts.

Another recent learning theory, referred to as connectivism, acknowledges the importance of using networked information technology to store and manage knowledge, and in the learning process itself.

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## **Digital technology**

Using digital technologies in learning not only has a major impact on the way we work and on the way we learn, but also, according to some experts, on the way we think!

There is no agreement on the positive and negative aspects to using technology, but there seems to be more convincing evidence pointing in the direction of the negative influences on brain functioning. An example can be seen in the way that we use the Internet and emails for communication. On the positive side, it seems to improve complex reasoning and problem-solving, but on the negative side it may lead to difficulty in concentration, impulsiveness and even people skills, including empathy (Keegan, 2012). Although this already has major implications for learning in organisations and for the practice of industrial psychology, further research on this development is needed.

According to this theory, learning takes place when learners make connections between concepts, ideas and perspectives that are located in their personal network systems. It can be internal connections between ideas that are located in internal neural networks, or it can be external connections that involve interacting with other individuals across technological networks. These systems are, for instance, accessed through interpersonal communication, electronic databases, online sources and the web. The following are regarded as some of the core aspects of connectivism (Dunaway, 2011):

- Learning is viewed as the process of making connections between information sources.
- Learning depends on diversity of opinions.
- The ability to perceive connections is central to the learning process.
- Developing and maintaining connections is important for continuous learning.
- The decision-making process used to assess the worth of learning specific information before engaging with it is regarded as a metaskill that represents a learning process.
- Applying one of the more recent learning theories will eventually be refined. It will also become more important as learners in the work context become more overwhelmed by the amount of information through which they have to

navigate their learning, and to make sense of the world around them.



**Figure 5.2** Is connectivism the future of learning?

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## 5.4 THE ADULT LEARNER

In organisations one mostly encounters a specific type of learner: the adult learner. This has led to the development of a learning model that differs from the well-known pedagogical model and is based on adult-learning principles, also called andragogy. The assumptions inherent in the

andragogical model (Camp, Blanchard and Huszycz, 1986; Van Tonder and Roodt, 2008; Coetzee and Schreuder, 2010) are discussed further on.

#### **5.4.1 Self-directed learning**

Adult learners are self-directing. Once adults have developed a self-concept of being responsible for their own lives, they develop a psychological need to be perceived and treated by others as capable of carrying out this responsibility. Regarding training, they want to initiate their own learning, determine their own learning needs and outcomes, learn according to their own preferred styles and methods, and evaluate their own learning performance. If adults then experience an “education” or “teaching” situation, they hark back to their conditioning from school days, assume a dependent role and demand to be taught. If they are then really treated as children, this conditioned expectation conflicts with their need to be self-directing, and instead of learning, they use their energy to deal with this conflict.

#### **5.4.2 The cognitive map**

Adults come into a learning situation with a fairly well-defined cognitive map. This map is based on their experience of the world, and the older they are, the more detailed their map is likely to be. Adults thus differ in the volume as well as the quality of their experience. These differences have two important implications for training:

- Firstly, different learning strategies are needed to satisfy the different experiences of the learners.
- Secondly, the differences in experience can be used as a learning resource.

However, these well-defined cognitive maps that adults have may also have negative consequences for learning. Habitual ways of thinking and behaving, preconceptions about reality, prejudices, and defensiveness about past experiences will have developed over time. The adult learners are reluctant to interpret new information as signalling a need for cognitive change. If a new concept or principle has to be learned, all of those parts of the cognitive map that relate to the new concept must be unlearned or reintegrated. It is this unlearning that is difficult for an adult learner. The learning process takes longer with adults for this reason, not necessarily because of a decline of intellectual capabilities (Camp, Blanchard and Huszycz, 1986).

Another consequence of an adult’s greater experience is that this experience

increasingly becomes the source of the adult's self-identity. If this is ignored, it is not the experience that is rejected, but the person. This is especially important to remember when working with adults who have little formal education, because they have little to sustain their dignity other than their experience.

### 5.4.3 Motivation to learn

Once people have learnt how to do something, the extent to which they will continue to do it is a function of motivation. Motivation is purposive behaviour instigated by activators that determine the direction and purposiveness of behaviour. (The concept of motivation is discussed further in [Chapter 8](#).)

Adults are motivated to learn when they experience a need to know or do something in order to perform more effectively in some aspects of their lives. For the most part, adults do not learn for the sake of learning or curiosity. Learning must be useful to enable them to perform a task or to solve a problem, or to be applied at least in the near future. The need to learn and the readiness to learn are critical aspects for successful adult learning. The “need to learn” refers to the value of the knowledge to the learner, and the “readiness to learn” refers to the amount of knowledge the trainee already possesses and the trainee's subjective opinion of his/her ability to learn the material (Camp, Blanchard and Huszczo, 1986).

Cross (1981) presents the Characteristics-of-Adults-as-Learners (CAL) Model in the context of her analysis of lifelong learning programmes. The model attempts to integrate other theoretical frameworks for adult learning, including andragogy and experiential learning.

The CAL Model consists of the following two classes of variables:

- *personal characteristics*, which include ageing, life phases and developmental stages (These three dimensions have different characteristics as far as lifelong learning is concerned. Ageing results in the deterioration of certain sensory-motor abilities, whilst cognitive abilities tend to improve. Life phases and developmental stages, such as marriage, job changes and retirement, involve a series of plateaus and transitions that may or may not be directly related to age.)
- *situational characteristics*, which consist of part-time versus full-time learning, and voluntary versus compulsory learning.

The administration of learning (that is schedules, locations and procedures) is strongly affected by the first variable, whilst the second variable concerns the

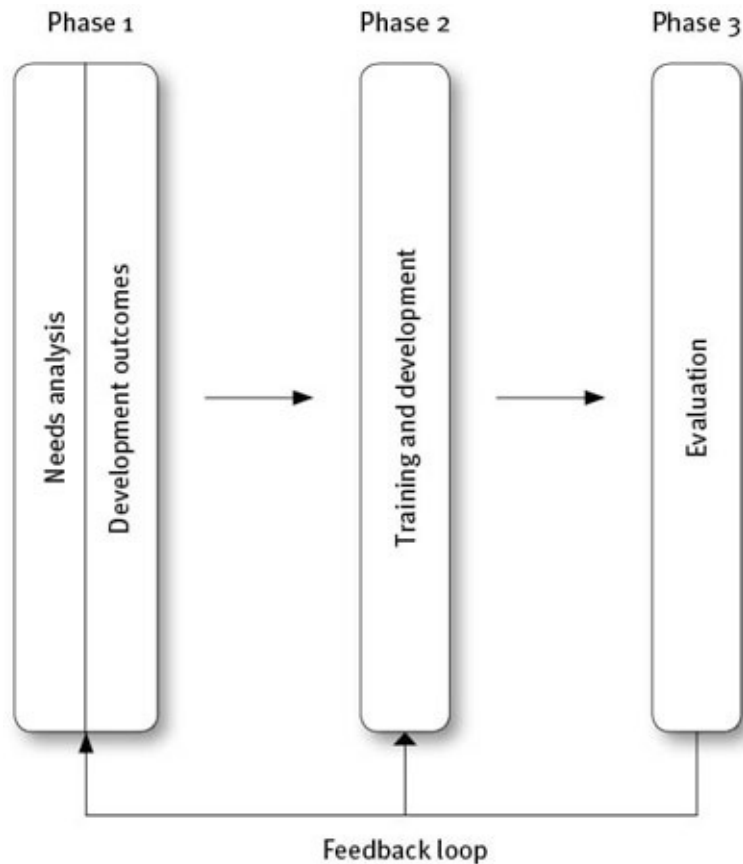
self-directed, problem-centred nature of most adult learning (Cross, 1981).

## **5.5 THE TRAINING PROCESS IN THE WORK CONTEXT**

The most obvious application of learning concepts in the work situation relates to the training and development function of organisations.

Although vast amounts of money are spent annually on training, the impact of the training efforts on the performance of organisations is poor. The complaints of learners mentioned in the introduction to this chapter are mainly a result of the haphazard manner in which training and development efforts are often undertaken. In order to achieve better results with training and development efforts, training models have been developed that are based on a so-called “systems approach”. Adopting a systems approach to training enables the organisation to keep track of the both the quality and quantity of its training interventions. Most training models incorporate the basic assumptions of the systems approach to training, which suggests that training must consist of an orderly, planned sequence of events in order to be effective:

- The first phase of the training process is an assessment of training needs and the development of learning outcomes.
- The second phase consists of the training /development phase.
- The third phase is the evaluation phase (see Figure 5.3).



**Figure 5.3** The training process.

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By discussing these three different phases in more detail, the different learning principles can be highlighted.

### **5.5.1 The needs-assessment and outcomes-development phase**

#### **5.5.1.1 Needs analysis**

This phase of the training programme provides the information that is necessary for the design of the entire programme (Coetzee and Schreuder, 2010). It consists of organisational analysis, task analysis and person analysis.

## **Organisational analysis**

The first stage of assessing training needs involves organisational analysis. The function of training in organisations is regarded as a sub-system of the organisation. No training can be done in isolation. It is therefore first of all necessary to analyse the organisation. The first step is to examine the short-and long-term goals of the organisation. This will ensure that the training programmes that are developed will not become obsolete because of changes in the organisation, for example when new technology is used. Organisations also need to ensure that there is a positive climate to enable the transfer of learning from the programme to the job. Another aspect to consider is whether training is the best solution to fulfil a specific need.

An alternative to training can be provided by the selection and employment of people who already possess the skills required.

## **Task analysis**

The second stage of assessing training needs involves task analysis, the first step of which is to compile a job description in behavioural terms. The job description specifies the duties and conditions under which the job is performed.

The second step is task specification. This consists of a list of tasks providing information about what the worker does and how he/she does it, and the conditions and reason for the existence of the task (Goldstein, 2007). The task specification enables the determination of what knowledge, skills, abilities and orientations (KSAO) are necessary to perform the job effectively. “Knowledge” can be defined as an organised body of factual or procedural information that is applied in performing a job; “skill” is the psychomotor capability to perform job operations; “ability” is the cognitive capability necessary to perform the job; and employee “orientations” refer to specific temperaments or attitudes needed for the job (Dipboye, Smith and Howell, 1994).

## **Person analysis**

The third stage of assessing training needs involves person analysis. Whilst the task analysis provides information on how the task should be done, person analysis is concerned with how well an employee is carrying out the tasks that comprise the job. The person analysis provides the information needed for determining the target group for the programme, the content of the programme, and its design and implementation. An aspect that is much neglected or ignored during person analysis is the assessment of the trainee's personality.

Personality variables should include emotions, adaptability, goals and other variables (Salas, 2001).

### **5.5.1.2 Outcomes development**

After a needs assessment has been completed, a decision must be taken about whether training is needed. Training is not always the best option. Costs can be saved through work design (for example, redesigning a particular task so that it can be broken down into a number of smaller units requiring fewer skills).

If a decision is finally taken in favour of training, the training needs should be described in terms of learning outcomes. These outcomes not only provide the input for the design of the programme, but also serve as measures of success that will be used in the evaluation of the programme. (See the feedback loop in Figure 5.3.)

Gagné, quoted by Goldstein (2007), identified the following five major categories of learning outcomes:

- intellectual skill (This is also called “procedural knowledge” and includes concepts, rules and procedures. It presumes that the person already knows the concepts that constitute the procedures. The learning of a principle is demonstrated when it can be applied in different situations, as when using a rule to determine instalments on a loan at a specific interest rate.)
- verbal information (This is also called “declarative information” and refers to factual information. Recalling the different parts of a computer, such as the disk drive, monitor and main board, is a demonstration of verbal information.)
- cognitive strategies (When performing a new task, learners use not only intellectual skills and verbal information, but also a knowledge of how and when to use the information. Cognitive strategies can be regarded as a type of strategic knowledge that enables the learner to use intellectual skills and verbal information (Goldstein, 2007) and thus helps him/her to learn, think

and solve problems.)

- motor skills (“Motor skills” refer to obvious forms of human behaviour, such as driving a car, running a computer program and mowing a lawn.)
- attitudes (The different preferences of learners for particular activities reflect differences in attitudes. These attitudes are learned, for example from the different commercial messages received from the mass media. Organisations often try to influence the attitudes of their employees. One method is by creating a specific culture.).

### **5.5.2 The training and development phase**

Only after the training needs have been identified and the learning outcomes specified can a training programme be developed (or purchased), and then conducted. During the development phase, an environment that is conducive to achieving the outcomes needs to be designed. This entails selecting a blend of learning principles and techniques that are based on the tasks the trainees have to perform (Dipboye, Smith and Howell, 1994; Goldstein, 2007).

Although it is not always feasible to apply all the learning theories to all training situations, certain valuable learning principles have been identified that can be used to improve the effectiveness of training programmes. Concepts such as the role of models and the value of positive reinforcement are important learning principles that should be incorporated in the training process.

#### **What is the practice of industry in South Africa?**

Legislation makes provision for a National Qualifications Framework (NQF). The NQF is a framework for categorising all the training needs of industry, and the standard of performance agreed on and expected of employees in their different roles, in order to fulfil the industry’s purpose. These required standards are described in documents called unit standards. A number of related unit standards together form a nationally recognised qualification.

The unit standards are based on agreed outcomes of learning. In the context of the NQF, learning outcomes refer to the end-result of the learning, namely the demonstration of competency in a specific context. These outcomes should contribute to the purpose of industry, the demands of society and the development of the individuals. Outcomes thus form the basis for the design and

implementation of learning programmes and the assessment thereof. The assessment of the learning is done against predetermined portfolios of assessment criteria. By emphasising the assessment of the outcome of the learning, the NQF provides for the recognition of prior learning and consequently enhances the possibility of lifelong learning.

#### **5.5.2.1 Learning principles**

The box below explains some of the important learning principles to facilitate the acquisition of knowledge, skills, abilities and orientations during training.

**Important learning principles to facilitate the acquisition of knowledge, skills, abilities and orientations during training**

**Trainee readiness**

The extent to which learning will take place depends firstly on the basic potential or intellectual ability of the trainee, and secondly on the strength of his/her motivation to pursue the goal of learning. Training motivation is multi-faceted and influenced by a set of individual characteristics, such as self-efficacy, anxiety and conscientiousness, and situational characteristics, such as climate (Salas, 2001). Generally speaking, the stronger the motivation, the more effective the learning will be. Although a great deal of research has been done on different kinds of motivation in groups – such as reward and punishment, praise and rebuke, social recognition and competition – it is difficult to determine which form of motivation is best for any particular situation or individual. Reward seems to be more effective than punishment, yet a combination of the two produces better results than either on its own; praise is on the whole more efficacious than rebuke, and some competition in learning is better than none. A crucial aspect of motivation in learning is a purposeful orientation towards learning a particular action, memorising something, or solving a problem.

**Practise and recitation**

On the strength of his experiments with animals, Thorndike formulated a Law of Exercise, which posits that learning and retention (memory) of a response depend on how regularly and how recently the response has been paired with the stimulus situation. The more frequently it is practised, the better the chances that the correct response will be learned. According to Dipboye, Smith and Howell (1994), research indicates that if information has to be learned (memorised), the learners must recite the material, and if the training is focused on the acquisition of a skill, the learners must also demonstrate the skill.

Findings further indicate that overlearning can be highly effective and efficient in the learning of complex skills. Overlearning means that practise should continue past the point where additional gains are made. Overlearning can, however, be problematic. The repetition of simple tasks may lead to boredom and a decline in motivation.

**Distribution of practise**

Although the massing of practise often leads to better short-term performance than the distribution of practise, it leads to poorer long-term performance of the task. As a rule it is more effective to distribute learning activity over a period of time than to learn a mass of material at once. The most effective distribution of periods for learning and relaxation must be established for each learning situation, as ultimately the optimal duration will depend on the individual learner and his/her powers of concentration. The effective distribution of learning may lead to reduced fatigue because of adequate rest periods, as well as improved motivation, the opportunity for nervous-system activity to persevere with learning, and occasions for the learner to eliminate defective approaches to learning.

**Knowledge of results**

The knowledge of results (the feedback) of learning is important, especially in learning motor skills. Individuals ought to know not only what is ultimately expected of them, but also how well they have done in each attempt. Knowledge of results stimulates a desire to repeat successful actions as well as to correct unsuccessful ones, and fosters a conscious attitude that encourages accuracy in learning. However, too much feedback may cause anxiety and embarrassment. Feedback on successes tends to be more effective than feedback on failures. The feedback must be specific and should be provided immediately after the response.

### **Whole versus part learning**

The relative effectiveness of whole versus part learning is of special significance. When a substantial amount of material has to be learned, such as a part in a play, it is important to know whether it will be easier to memorise the material as a whole, or to subdivide it into separate components and combine these afterwards. Blum and Naylor (quoted by Dipboye, Smith and Howell, 1994), proposed that the type of learning where the task is learnt as a whole or “whole learning” is more efficient when the task is both highly organised (components of the task are highly interrelated) and complex. In contrast, part learning becomes increasingly more efficient with tasks that are low in organisation and high in complexity. Working on a computer is an example of a task that is highly organised and relatively complex. The task involves an interrelated sequence of actions: switching on the computer, entering the password, entering the program, and so on. It would be more efficient to learn these actions in a sequence rather than learn them as individual tasks. Learning to play cricket is an example of a task that is low in organisation. The learner can learn the various tasks, such as batting and bowling, independently.

#### **5.5.2.2 Transfer of learning**

When one designs a training programme, the generalisation of training from the training situation to the work environment is of the utmost importance. The above discussion of conditioning refers to the generalisation of stimuli in Pavlov’s experiments: the phenomenon whereby association triggered by a conditioned stimulus in a particular conditioning situation can be transferred to other, similar stimuli which then elicit the same response. In an analogous way, learning can be transferred from one situation to another. Transfer is regarded as positive when what is learned in training improves learning or performance in the workplace. However, it may be the case that training does not affect performance in the work setting. The worst scenario is negative transfer, in which training impedes or hinders performance.

Similarity of stimuli and responses is a basic principle in transfer. The greater the similarity between stimuli in the learning situation and stimuli in the work

situation, the stronger the transfer from the learning situation to the work situation will be. Equally, the greater the similarity between the responses required in two different activities, the more readily transfer will occur. For instance, if a person is able to drive one make of car, he/she will not have much difficulty in driving another make, as the main controls (stimuli) in both vehicles are much the same, whilst the type of responses required also correspond to a great extent. For similar reasons, a proficient pianist will learn typing more easily than someone without much finger dexterity.

### **An experiment to study the transfer of learning**

A typical experiment to study the transfer of learning required the subject to trace a pencilled outline of a star shape whilst watching only the movements of his/her hand in a mirror. Using an experimental group and a control group, it was established that the acquisition of dexterity with the right hand benefits the performance of the left hand as well. Such transfer of skill from one part of the body to another is called bilateral transfer.

The transfer of learning from one situation to another similar situation can be illustrated in the learning of a verbal skill. The memorising of a list of meaningless syllables usually facilitates the learning of a second list, as if the subject has learned how to master this kind of material. In contrast, the ability to memorise meaningless syllables seems to have an adverse effect on learning a piece of prose, for example; in this case negative transfer occurs.

#### **5.5.2.3 Training techniques**

In the training of employees, specific techniques need to be used. The different training techniques are grouped according to non-experiential and experiential techniques.

- Non-experiential techniques, for example lectures, are more cognitively oriented and therefore try to stimulate learning through their impact on thought processes. Non-experiential techniques should be used when needs assessment indicates a knowledge deficiency.
- Experiential techniques are more behaviourally oriented and focus on learning by means of concrete experiences. Experiential techniques should be

considered in the case of a skill deficiency.

- Action learning. The concept of action learning is used as a synonym for experiential learning, but rather than occurring through simulation, case studies and games, learning occurs through and with another person or group in the workplace. Learning is a way of doing in the actual workplace, and therefore is relevant to the immediate here and now of one's work. Learning occurs through dialogue in group discussions, networks, interorganisational relationships and international development programmes. For example, an international programme involves a participative learning relationship between women in senior positions in Australian universities and women in South African technikons, facilitating leadership development in the latter.

Action learning is particularly useful when the answers to shared workplace issues and problems are not clear; it can lead to the empowerment of the employee and his/her integration in the organisation, as well as to organisational development (Zuber-Skerrit, 2002).



**Figure 5.4** Effective learning, or not? Unfortunately, there is no agreement amongst researchers regarding the relative value of the lecture.

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## Experiential learning and experiential techniques

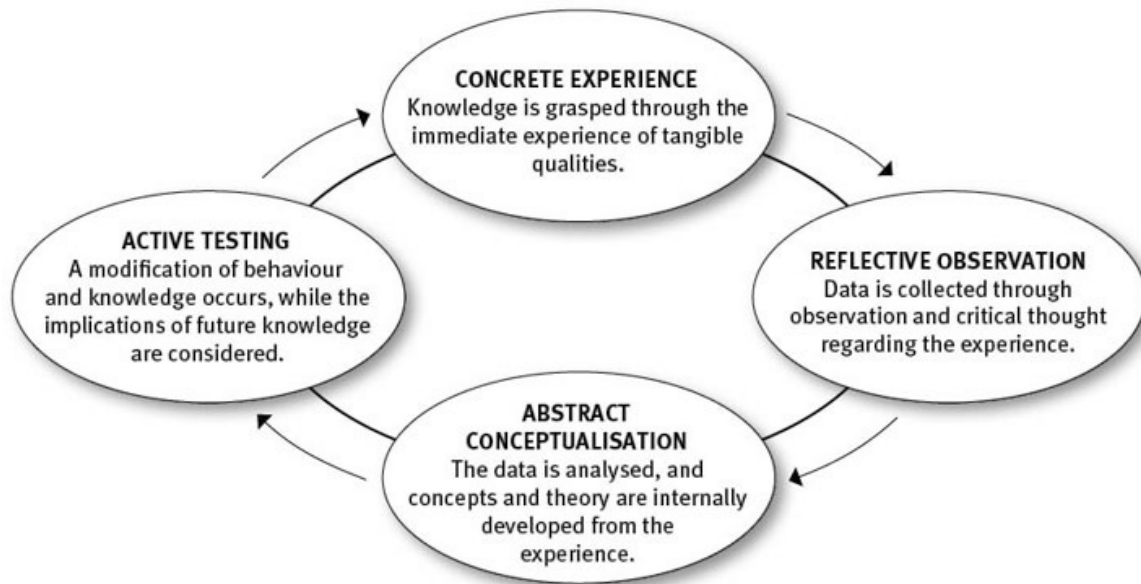
Experiential learning refers to the knowledge, skills, and/or abilities attained through certain training techniques that provide depth and meaning to learning by engaging the mind and/or body through activity, reflection and application (Craig, 1997). Experiential learning techniques are primarily based on the experiential learning theory of Kolb, which suggests that learning is a cyclical process consisting of four phases, from experience, to reflection, to conceptualising, to action, and then to further experience:

- **Phase 1:** Concrete experience. In this phase the learner gains concrete knowledge from active experimentation with specific tasks and from relating to people. Such learning may be planned or accidental. The experience must be observed and reflected on to identify its elements.
- **Phase 2:** Reflective observation. This step entails the action of observing before making a judgement by viewing the environment from different perspectives. Concepts are formulated to express the experience in relation to previous experiences.
- **Phase 3:** Abstract conceptualisation. In this phase theories are further developed. Through reflection, ideas are analysed logically and the person then acts on his/her intellectual understanding of a situation. Furthermore, generalisations are made by predicting whether similar consequences are likely to recur if certain behaviours are repeated in other situations.
- **Phase 4:** Active experimentation. This step entails making predictions that are then tested. A new experience is constituted, and the process starts all over again. This step also includes a trainer's ability to get things done by influencing people and events through action, and may even include risk-taking behaviour.

The four phases are not separate and distinct. Rather they have reciprocal, inextricably interconnected and functionally dependent relationships (Coetzee, 2008).

The move through the cycle depends on the situation or environment. Learners may enter the learning cycle at any point, but

for the cycle to be effective, they should go through all the phases.



**Figure 5.5** Model of experiential learning.  
Source: Adapted from Goldstein, 2007; Coetzee, 2008; Craig, 2008 and Weiten, 2008

The resemblance between the experiential learning cycle and the perspective whereby learning is regarded as the reorganisation and reconstruction of experience is clear. The experiential learning cycle is illustrated in Figure 5.5.

Experiential techniques can be customised to match the learning styles and preferences of both trainer and trainees. There are a number of experiential learning techniques that can be utilised as training techniques. Some experiential techniques that are often used in organisations are: simulation; case studies; role playing; business games; the in-basket technique; sensitivity training; apprenticeships, internships and workshops; service learning and workshops; field study and shadowing; scaffolding; and mentoring and coaching.

**Simulation**

Simulation involves the use of equipment that requires trainees to use the same procedures and actions that are necessary when operating the actual equipment in the workplace. Simulators are often used to save costs, or when human lives would be at stake, for example when training pilots. The equipment and the psychological conditions should resemble as closely as possible the actual equipment and environment in which the tasks will be done (Camp, Blanchard and Huszczo, 1986).

**Case studies**

Case studies are often used in a small group situation. The group is provided with a written description of the background to, and problems of, a real or realistic situation. The group is expected to organise the information, identify the decision issue, determine a diagnosis, find a rational solution, and develop a plan of action (Camp, Blanchard and Huszczo, 1986).

## Role playing

Emotional involvement, attitude change, and possibly also empathy can be fostered by assuming the role of a person in a hypothetical problem situation, or in a simulated interview situation. The student is required to handle a situation he/she has not hitherto experienced, and may be compelled to formulate and adopt arguments that entirely contradict the view he /she normally holds. It is suggested that role playing accomplishes learning by doing, through imitation, through observation and by feedback, as well as through analysis and conceptualisation. Role playing also provides the opportunity to practise skills that are transferable to the work situation (Camp, Blanchard and Huszczo, 1986).



**Figure 5.6** A flight instructor sits beside his student as she operates a flight simulator.

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**Business games**

Games are developed to represent the functioning of an organisation. After being given information on aspects such as organisational problems, managerial functions and policy decisions, trainees are asked to make input decisions and are then provided with feedback on the consequences of their decisions. Business games are very popular and are often used in management training. The more realistic the game is, the more effective it will be, especially in the transfer of learning.

**The in-basket technique**

With this technique, the in-basket of a manager is simulated. The trainee is provided with memos, phone messages, letters and requests that a manager will typically have to address within a short period. Although the primary purpose of the technique is to develop decision-making skills, it is also used to improve other skills, such as organising skills and time management.

### **Sensitivity training**

Sensitivity training, also called T-groups (training-groups), is primarily used for training in human relations. Unstructured real-life opportunities are provided to study behaviour as it occurs during training. Although trainees develop insights into their interpersonal relationship styles, a disadvantage is that there is not often the opportunity to apply the training in the work situation. A similar technique is used to study group processes and dynamics. Because of the misuse of sensitivity training in the past, it has fallen into disfavour. It is, however, regaining popularity with psychologists for use as an intervention in organisational development.

### **Apprenticeships, internships and workshops**

These types of experiential learning have the primary objective of linking classroom theory with practical field techniques. They involve the supervised practical application of previously studied theory. They often, but not always, constitute a paid post-graduate course of work relating to a specific field of study (Craig, 2008). For example, in order to qualify as a psychometrist or an industrial psychologist, a person must complete an internship programme for the duration specified by the HPCSA. Service learning is a type of internship in which students work as volunteers with social agencies in order to provide much needed service to areas that may be plagued by financial constraints. As well as serving the local community, the student also benefits through the acquisition of personal development.

Workshops provide students with work opportunities that may not be related to the students' major career goals. Besides that, workshops facilitate personal development and are an opportunity for students to earn funds to return to study and so gain the abilities necessary to function in the labour force in general (Craig, 2008).

**Field study and shadowing**

A field study takes place in a practical work setting. Shadowing involves observing, in a work setting, an expert who is doing what the trainee will be expected to accomplish.

**Scaffolding**

Literally, scaffolding is the temporary structure that facilitates the building of the main project. The metaphor of scaffolding is also used in training, and refers to the technique of helping a trainee master a task that he/she is initially unable to perform independently. The trainer offers assistance with only those skills that are beyond the trainee's capability. When the trainee can take responsibility for the task, the trainer "fades away", gradually removing the scaffolding (Benson, 1997).

**Mentoring and coaching**

Mentoring is a form of teaching that includes “walking” alongside the person one is teaching and inviting this protégé to learn from one’s example. It is an all-inclusive description of everything done to support a trainee’s orientation and professional development. Mentorship has been seen to have significant but often under-realised benefits for organisational effectiveness and improvement (Swanepoel et al., 2003:413–414).

Coaching focuses on learning job-related skills. Coaching encompasses support for technical, skills-related learning and growth. It is provided by a professional expert who uses observation, data collection and descriptive, non-judgemental reporting on specific behaviours and techniques, as requested. Coaching is one of the sets of strategies that mentors must learn and use effectively to increase their protégés’ skills and success (Sweeney, 2001).

### **The value of experiential learning**

At present experiential learning is possibly the most significant focus for educators in the workplace, in communities, in literacy education, as well as in colleges and universities. Geldenhuys and Cilliers (in Van Tonder and Roodt, 2008) add that experiential learning has been the method of choice for many organisational-development (OD) facilitators. For example, the manner in which experiential learning may be applied in the executive-coaching process provides opportunities for self-awareness, self esteem and increased quality in communication by means of behavioural feedback and interpretations of the executive's impact on others (Geldenhuys and Cilliers, in Van Tonder and Roodt, 2008:221).

### **5.5.3 The evaluation phase**

Organisations are not really interested in the learning process or the training as such. They want to know what the *return on their investment* (ROI) in training is. This can only be determined by evaluating the outcomes of the training. Although the importance of this last phase is never denied, it is the most neglected phase of the training process.

#### **5.5.3.1 Criteria for evaluation**

For a systematic approach to training, the criteria to be used for evaluation purposes need to be based on the needs assessment. The choice of criteria should thus be guided by the analysis of the needs of the organisation, the task requirements and the current deficiency of the trainee regarding knowledge, skills and orientations.

Kirkpatrick (1977) developed the following criteria for the evaluation of training:

- reactions of participants (These are obtained by asking the trainees for their opinion of the programme. A questionnaire about the skills of the trainer and the use of audio visual aids is a typical example of how to obtain this information.)
- learning (Learning is normally evaluated by means of paper-and-pencil tests to determine if the principles, facts and techniques that were taught are understood.)

- behaviour changes (An assessment is made to determine if the training has led to changes in behaviour on the job.)
- results (The measurement of results includes measurement of aspects such as increases in work performance, labour turnover, absenteeism, and reductions in costs.).

Although this approach is valuable in determining the criteria for evaluation, it also has some shortcomings. One of them is that it is not always necessary that a programme is enjoyed (reaction of trainees) for learning to take place. The unlearning of certain behaviours, for instance, may be very painful.

### **5.5.3.2 Summative versus formative evaluations**

A systematic approach includes evaluating approaches before, during and after training to ensure employees truly benefited from the training in terms of enhanced results to the organisation. Trainers are not only interested in the outcomes of training programmes, they also want to know what process factors influence the success of the training. This information can be obtained by observing the trainees and trainer or by monitoring the process at certain intervals. Evaluation that incorporates the mediating factors is called formative evaluation, whilst evaluation that only measures the outcome of a programme is called summative evaluation (Dipboye, Smith and Howell, 1994).

### **5.5.3.3 Evaluation design**

The evaluation phase should also focus on the design of the training programme. The evaluation needs to determine internal validity, that is whether the results obtained from the training programme can be ascribed to the programme as such, and not to factors such as history, maturation and mortality. The evaluation should be designed to achieve this. It is also important to determine the external validity of the programme. Can the findings be generalised to performance in other situations, for example to other organisations (Goldstein, 2007)?

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### **Feedback in the training process**

In a systematic approach to training, each phase of the process produces results needed by the next phase. For example, the training process (phase 1) generates a platform for compiling learning principles that will be used to facilitate the acquisition of knowledge, skills, abilities and orientations during the training and development phase (phase 2). As the training process progresses, each phase provides ongoing evaluation feedback to the previous phases in order to improve the overall systems process. This means that phase 2 provides an opportunity whereby trainers can assess and give feedback on whether they have accomplished what they had planned to do in phase 1.

## **5.6 THE LEARNING ORGANISATION**

The systems approach indicates that the outputs are influenced by the interactions between the individual and the organisational processes. In the context of learning, these interactions lead to feedback that influences new inputs and outputs by individuals and organisations. Both the individuals and the organisations are “learners”. Their learning is continuous as systems involve continuous change in all their parts. This continuous learning of the individual (lifelong learning) and organisational learning result in a realisation of what Peter Senge called “the art and practice of the learning organization” (Senge, 1990).

A learning organisation is an organisation that fosters individual abilities to be ready and able to adapt to changes in the organisation’s expectations and requirements (Schreuder and Coetzee, 2011). Senge (1990) suggested that the learning organisation continually creates opportunities for all its people, and encourages all its people in all its functional departments to fulfil their human potential.



**Figure 5.7** Team learning in a learning organisation.

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According to Senge (1990) continuous learning in organisations can be fostered by focusing on the following five disciplines:

- *personal mastery* (This involves learning to make better decisions by resolving imbalances between personal goals and the realities of the present.)
- *mental models* (This involves becoming aware of, thinking and talking about the influence of different attitudes and perceptions on interactions, rather than jumping to conclusions.)
- *shared vision* (This involves acquiring mutual purposes in creating the future, and a sense of commitment.)
- *team learning* (This involves dialogue to build learning-oriented teams.)
- *systems thinking* (This involves feedback for learning about interrelatedness and change in all systems.).

## 5.7 SUMMARY AND CONCLUSION

This chapter explored how people learn, how to accommodate adults in the learning process, and how to apply learning principles in the development of training programmes. This chapter has also provided a basic knowledge of learning concepts on which training theories and models, and the practice of training, are built.

Various researchers have suggested that high levels of expertise are developed only over a long period of time, and yet organisations usually require trainees to demonstrate evidence of adaptive expertise soon after training (Ericsson and Charness, 1994, in Haccoun and Saks, 1998). This underscores the importance of practical applications of learning principles in training programmes.

It is now apparent that no efficient and effective training can be done if trainers are not well equipped and qualified for their task. A thorough knowledge of learning theories and principles is necessary, as well as the skills to apply these in the development, conduction and evaluation of training programmes. For some techniques, such as sensitivity training, advanced study of psychology is necessary.

To apply training techniques, advanced knowledge of organisational psychology and an understanding of the effect of change in organisations are both critical requirements.

## **5.8 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. How would Skinner explain the alarming increase in criminal behaviour exhibited by some learners as recently witnessed in some South African schools?
  - a) fear and greed
  - b) inherited predispositions
  - c) crime perceived as a means of gaining desired goals
  - d) faulty methods in child-rearing practices
  - e) a lack of moral values in contemporary society.
2. If the ultimate goal of experiential learning is to provide for affective and behavioural as well as cognitive learning, which one of the following techniques would not adequately facilitate such learning?
  - a) mentoring
  - b) in-basket technique

- c) simulations
  - d) shadowing
  - e) scaffolding.
3. Which one of the following theories is based on the assumption that systems at most levels of complexity share certain characteristics, and may use feedback loops to regulate themselves?
- a) cognitive theory
  - b) social theory
  - c) social construction theory
  - d) systems theory
  - e) connectivism theory.
4. Connectivism implies:
- a) learning by example
  - b) the construction of meaning
  - c) making use of the web
  - d) the importance of prior learning
  - e) both b) and c).
5. Which of the following learning principles does not apply to andragogy?
- a) self-directed learning
  - b) well-defined cognitive map
  - c) motivated by curiosity
  - d) unlearning is difficult
  - e) adults learn slower.

### **Answers to multiple-choice questions**

1 = d; 2 = a; 3 = d; 4 = c; 5 = c

## **Issues for discussion and practice**

1. Explain how knowledge of the different learning theories can help to improve training in the work context.
2. Determine the similarities between behaviourist theories of learning and the experiential learning theory of Kolb.
3. Imagine that you have to develop a training programme in customer care. Discuss the different learning principles and describe, with examples, how these principles can be applied in the development of the programme.
4. Imagine that you have realised that the training department of your company is reluctant to determine the effectiveness of training programmes. Explain how the proper evaluation of training can help to ensure that money spent on training is well spent.
5. Explain how you can utilise the principles of experiential learning to engage students in activities that require them to critically evaluate information and obtain useful insight and knowledge.

## CASE STUDY

Victor, Jane, Kevin and Frans are colleagues in a human resources department that have to develop a programme in conflict management for their company. As they were unsure as to how to develop the programme, they decided to share their knowledge and to introduce the programme with a discussion on the causes of conflict. Victor was of the opinion that, based on his experience, the most important cause of conflict in their organisation is a lack of communication. Jane strongly disagreed by stating that, because they often get so many messages from different managers, they tend not to listen anymore, and as a result they miss important information. After a long discussion, facilitated by Kevin, consensus was reached indicating that there was enough communication as well as over-communication that may lead to conflict. Kevin then mentioned that he had personally learned to handle conflict using an example set by his manager, especially after reflecting on his behaviour during a negotiation process in which he was involved. Frans, the youngest member of the group, was not involved in the discussion, but searched online to find conflict management programmes. When confronted with his lack of participation, he stated that time was of the essence and that they would certainly find a number of programmes from which they can choose. He responded with the comment, “Why reinvent the wheel?”

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1. On what learning theory is their decision “to share their knowledge” based? Motivate your answer by discussing the different principles underlying this theory.
  2. What learning theory was probably underlying Kevin’s learning and which learning technique probably played a role? Substantiate your answer.
  3. Provide a critical evaluation of Frans’ behaviour in the group regarding the learning process.

## CHAPTER 6

# Perception

*Leona Ungerer*

## 6.1

## [Introduction](#)

## 6.2

[Nature of perceptual processes and psychophysics](#)

## 6.3

[Visual perception](#)

## 6.4

Perceptual constancy

**6.5**

[Interpersonal perception](#)

## 6.6

Perception and technology

**6.7**

## Summary and conclusion

**6.8**

## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- define sensation, perception and psychophysics
- illustrate how various concepts studied in psychophysics influence everyday life
- indicate examples in life and work where stimulus attributes are used to get the perceiver's attention
- provide examples explaining four laws of grouping
- distinguish between monocular and binocular cues in depth and distance
- define the various types of illusions
- explain influences, including culture, on perception
- indicate the role of perceptual constancy in everyday living
- debate the concept known as "extrasensory perception"
- compare impression formation and attribution
- comment on impression formation with special reference to short cuts people use
- contrast prejudice and discrimination in perception
- explain how prejudice and discrimination develop
- debate how prejudice and discrimination can be reduced
- comment on the role of perception in resistance against technology.

## 6.1 INTRODUCTION

Most of our actions are observed and stored in the minds of people with whom we interact. These actions may range from extensive interactions such as having a conversation with one's supervisor to limited interactions such as copying someone on an email. People's perception plays an essential role in what they remember about other people. They continually attempt to understand and make sense of the information received from their environment. In order to achieve this, people select, organise (group and categorise) and interpret the information (Brewer and Miller, 1996, in Garfinkle, 2011). Imagine what a multitude of sensations and perceptions people will miss if they do not have the use of one or

more senses.

People's perception is affected by internal factors such as personal experiences, personality and external factors such as stimuli from the external environment and context in which they operate (Garfinkle, 2011). However, it is important to remember that our experience of the world is highly subjective (Weiten, Dunn and Hammer, 2012). Our senses are designed to function together and our brain is organised to use the information it collectively derives from the various sensory channels to enhance the probability that objects and events will be detected rapidly, identified correctly, and responded to appropriately (Balaji, Raghavan and Jha, 2011). Perception is the psychological experience resulting from stimulation of the senses, or sensation. Psychologists usually differentiate between *sensation* (receiving new or raw data and stimulation of the sense organs) and *perception* (the active process of selection, organisation and interpretation or giving meaning to sensory stimulation). The process of converting sensory stimuli and related information into neural impulses or internal signals that give psychological meaning to sensations is called *transduction* (Morris and Maisto, 2010).

In the work context, effective sensory awareness and perception are essential for observing, interpreting and giving meaning to work instructions, working conditions, tasks and co-workers. Office and factory workers, for example, must be able to distinguish between different stimuli, such as written messages, sounds, different lights, movement, people talking, and even smells in order for them to react appropriately and be able to work healthily and safely.

Perceptual processes and the differences between employees in this regard are important reasons why I-O psychologists and management should be aware of how perception can impact on employees and work processes. The design of work environments and work tasks are important to enable employees to perceive and understand their working conditions and tasks which should enable them to do their work effectively.

The *aim* of this chapter is to emphasise how various aspects of perception influence human behaviour in general, and more specifically, in the work context.

## 6.2 NATURE OF PERCEPTUAL PROCESSES AND PSYCHOPHYSICS

The *perceptual process* involves being aware or conscious of ourselves, others,

our environments and the world at large, and giving meaning to awareness. Psychophysics involves the study and measuring of these processes.

### **Sensation and perception**

The *senses*, or *sensations*, make people aware of what is happening inside and outside the body. *Sensation* starts when people become aware of or obtain information about themselves and their environments through sense receptors in the *five human senses* and *internal body tissues*. The senses receive some form of *physical energy or stimulus* from inside the person or from the external environment. After or whilst becoming aware, *perception* is the cognitive process which happens in the human body and mind to select, analyse, organise, interpret and understand sensory stimuli and impressions (sensations) from environments (Wade and Tavris, 2009; Morris and Maisto, 2010). Table 6.1 identifies five senses and the type of stimulus to which they are sensitive, as well as their physical and cortical location. This is not a detailed discussion of the five senses; however, the emphasis is rather on the characteristics of sensation and various perceptual processes and its influence on human behaviour (Wade and Tavris, 2009; Morris and Maisto, 2010; Weiten, 2012).

Two more senses not indicated in the table are the *proprioceptive senses* which refer to body movement and position. These include the *vestibular sense* that provides information to the individual on gravity and movement in order to determine the body's position in space. A second proprioceptive sense is the sense of *kinesthesia* which orientates the individual with regard to the position of limbs and other body parts relative to each other which are essential for movement (Kowalski and Westen, 2011).

Stimulation of the senses (sensation) is the immediate stimulatory process. This is followed by the active selection, organisation and interpretation of sensory stimulation (perception). Such interpretation involves highly complex neural processes that consume a substantial proportion of the brain's cerebral cortex (Mather, 2006). Perception involves a dynamic search for the best interpretation of data that is readily available, and thus requires more than just stimulus patterns. During interpretation, we assess or evaluate the data, or form a particular understanding of the data. Our interpretations are based on our mental models or frames of reference. Past experiences play an important role in how we interpret data, as well as our assumptions about human nature, and our expectations about people, things and events. How we interpret data is also influenced by our mood at the moment as well as our tendency for "*closure*" – we add finishing touches to an experience to reduce any uncertainty about the

data (Bokeno, 2011).

Perception is a selective process that shapes a person's subjective awareness of his/her reality. Perception helps a person when meaning must be assigned and external factors must be interpreted. In terms of the systems model (mentioned in the Orientation section), perception is an individual process that affects a person's work-task outputs, his/her perception of social processes (such as employee relations), and his/her perception of organisational processes (such as management styles). Perception is not possible without sensation.

On a practical level, sensory information strongly impacts, for example, on consumers' perception of products and services. It has been suggested that people react instinctively and subconsciously to sensory stimuli such as smell, compared to other stimuli such as a brand name or logo, which are mainly established by means of learning (Balaji et al., 2011). Research in sensory marketing (that is, engaging consumers' senses to influence their emotions, perceptions, choices, preferences and consumption) has increased significantly over the last few years (Krishna, 2010 in Balaji et al., 2011). Sensory aspects of a product such as its look, smell, touch, sound and taste influence consumer evaluation of a product and affect their behaviour, resulting for instance in impulse buying, more time spent at the store, longer viewing time and more money spent (Balaji et al., 2011). The sense of touch in particular plays an important role in our evaluation or appreciation of many different products, which explains the recent growth of interest in "tactile branding" and tactile marketing. The feel of a product, and the feel of its packaging, can be a determining factor in people's overall product evaluation (Spence and Gallace, 2011). With the increased use of products such as tablets, electronic book readers and smart phones, this sensory aspect will probably gain increasing research interest.

Most sensory abilities of awareness and perceptual processes should be more or less similar for all people. If all factors are positive, then the human brain and its integrated functions should mostly ensure that people make the best and most realistic observations and interpretations from available information.

However, genetic and biological and psychological differences in people may make perceptual processes *selective and very unique* for each individual. People's heredity provides a broad range of behavioural and mental possibilities which in combination with environmental learning influence perception (Rathus, 2012). The differences in perception resulting from genetic and related biological processes are also influenced by environmental learning, illness,

substance use or physical handicaps. The influence of heredity (nature) and learning (nurture) on perception is illustrated by research on blindness. People born blind (or blinded soon after birth), whose sight was later restored through medical procedures, could make at least partial sense of the visual world, such as following moving objects (Von Senden, in Baron, 1996). Sacks (in Baron, 1996) also mentions the case of Virgil, a 50-year-old man who regained his sight after 45 years of blindness. The fact that Virgil could immediately detect visual features, such as letters, objects and colours, suggested the influence of innateness. However, Virgil could not “see” in the true sense because he could not relate meaning to external stimuli through all his senses. Learning even simple visual relationships required great effort, because previously he had acquired most of his knowledge of the world through the sense of touch.

Considerable evidence substantiates the view that key aspects of perception are learned. Experiments were carried out in which human volunteers wore special goggles that inverted their view of the world and reversed right and left. The volunteers initially experienced difficulty in carrying out everyday activities with their goggles on, but they soon adapted and could do everything from reading a book to flying a plane (Kohler, in Baron, 1996).

Biological processes of perception are shaped by people’s previous physical, social and emotional experiences, as well as by how people interact and communicate. Differences in perceptual processes and experiences explain why people often respond differently to the same stimuli. They may receive the same sensations, but attach different meanings to sensations and may, therefore, also respond differently. Therefore, the “human factor”, or individual differences with regard to perception, explains why people may mostly manage events correctly. However, there are also many examples of errors due to human perceptual *errors*, which cause accidents at home or at work, or cause differences of opinion between people.

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**Table 6.1**      Classification of senses

Sense	Stimulus	Receptor	Sensory structure	Cortex
Vision	Electromagnetic energy	Photo receptors	Eye	Primary visual cortex
Hearing	Air-pressure waves	Mechano receptors	Ear	Auditory cortex
Touch	Tissue distortion	Mechano receptors	Vestibular organs	Temporal cortex

Balance	Gravity acceleration	Mechano receptors	Vestibular organs	Temporal cortex
Taste/smell	Chemical composition	Chemo receptors	Nose, mouth	Primary taste cortex, olfactory cortex

Source: Mather (2006:4)

## Psychophysics

*Psychophysics* is related to the study of perceptual processes, because it entails the quantitative study of perception. Psychophysics examines the relationships between the attributes of actual stimuli and the attributes of observed stimuli (sensation) and the psychological perceptual experience (perception), and the reasons for these relationships (Jordaan and Jordaan, 1998; Ware, 2013). Psychophysics determines whether we always experience what we become aware of through our senses. The early experimental psychologists were interested mainly in sensation and perception and started to use the principles and methods of psychophysics in the scientific study of the relationship between physical stimulation and perceptual experiences. Psychophysics uses techniques based on applying the methods of physics to measurements of human sensation. Gustav Fechner, a German scientist, was an important contributor to psychophysics. The techniques Fechner invented opened the door to the scientific study of the mind, combining manipulation of quantifiable, physical stimuli with subjective reports of stimulus perception. Psychophysics, thus, entails the measurement of the senses or how sensitive the senses are, that is, how sensitive the senses are in relationship to how people experience their sensations. The success of this approach influenced Wilhelm Wundt, who modified the techniques to create the first scientific study of conscious experience (see Chapter 2 on the structuralist school of thought).

Some of the issues that have been studied in psychophysics over the years are thresholds, the just-noticeable difference, signal-detection theory, subliminal perception and sensory adaptation.

### 6.2.1 Thresholds

Sensation begins with a stimulus, or any detectable input from the environment. The weakest detectable stimulus for any given sense (for example, the minimum amount of light needed to see) is a *threshold*, also known as a *limen*. A threshold is the dividing point between energy levels that have a detectable effect and

those that do not (Weiten, 2008).

An *absolute threshold* for a specific type of sensory input is the smallest unit or minimum amount of stimulation that an organism can detect. “Absolute thresholds,” however, differ from person to person, amongst senses, even for the same person under different situations. Researchers define the absolute threshold as the stimulus intensity that is detected 50% of the time. Using this definition, researchers find that under ideal conditions, a person’s ability to detect weak stimuli is better than expected. However, disturbances from the environment (such as noise or poor light) influence people’s perceptual thresholds.

Humans normally perceive and recognise 5 000 odours. The olfactory threshold is a value that is used as standard to express the strength and the weakness of an odour (Sugimoto, Segawa, Noguchi, Bannai and Okada, 2011, p.325). Three kinds of values are generally used for the olfactory threshold, namely the detection threshold, the recognition threshold and the differential threshold. However, because the olfactory threshold is a measure of the lowest olfactory stimulus intensity at which a person can perceive odour, this value does not reflect the true intensity (strength and weakness) of the odour perceived.

## 6.2.2 The just-noticeable difference

The *just-noticeable difference* (JND) or the *difference or differential threshold* is the smallest difference in the amount of stimulation between stimuli that human senses can detect. It is the minimum quantity by which stimulus intensity must be modified in order to acquire a distinguishable variation.

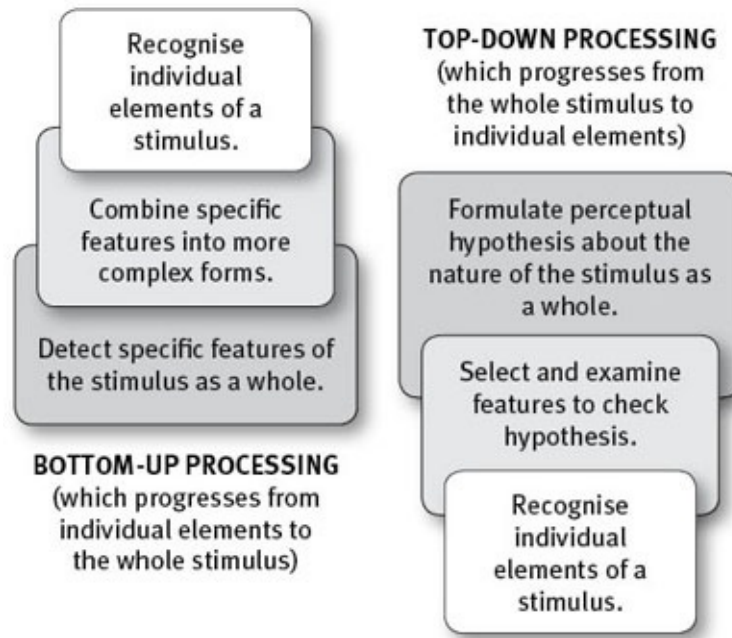
Ernst Weber, a nineteenth-century experimental psychologist, observed that the size of the JND appeared to correspond to initial stimulus magnitude (Weiten, 2012). The JND has different values for different objects and senses, as Weber detected. For instance, the JND is higher for heavy objects than for light ones. The smallest detectable difference, however, is a fairly stable proportion of the mass of the original object. This principle came to be known as *Weber’s Law*. Weber’s Law states that the size of a just-noticeable difference is a constant proportion of the size of the initial stimulus. In general, as stimuli increase in magnitude, the JND becomes larger. This implies that to be perceived as different, two stimuli must differ by a constant minimum percentage (proportion) rather than a constant amount. Other perceptual laws, though, for example Fechner’s Law and Steven’s Power Law, built on Weber’s Law, however, emphasise that subjective experiences of stimuli contribute to the fact

that peoples' psychological experiences and the meaning they give to stimuli may not be exact representations of reality (Kowalski and Westen, 2011).

Marketing managers are also interested in the threshold level of perception, or the minimum difference in a stimulus that a consumer will notice. For example, how much would Apple have to drop the price of its latest iPod before consumers recognised it as a bargain? Manufacturers and marketers try to determine the relevant JND for their products so that negative changes (such as reductions or increases in product size, or reduced quality) are not readily discernible to the public, but also so that product improvements are readily discernible to customers without being wasteful. Marketers use the JND to determine the amount of change they should make in their products to avoid losing the readily recognisable aspects of their products. It is possible that the JND in a stimulus may only require about a 20% change. For example, consumers will probably notice a 20% decrease in price more quickly than a 15% decrease in change. This marketing principle can be applied to other marketing variables as well, such as package size or the loudness of a broadcast advertisement. Marketers want to meet consumers' differential threshold so that consumers easily perceive the improvements made in the original product. When a brewery, for example, changes the label of one of its most popular beers, it will probably stress the fact in advertising that, although the label has changed, customers will still get the quality they have been used to.

### **6.2.3 Signal detection**

Scientists who study psychophysics regard stimuli such as sounds and flashes of light as signals. According to *signal-detection theory*, the threshold for detecting a stimulus does not only depend on the properties of the particular stimulus, such as its intensity (for instance, the loudness of a sound) but also on the level of background stimulation (or noise), and the biological and psychological characteristics of the receiver (Nevid, 2012). Psychologists acknowledge the difficulty of explaining how people manage to recognise patterns and forms in objects so readily. Some perceptual psychologists believe that the ability to interpret sensory experience (for example, to interpret peoples' behaviour or perceive objects) represents a form of problem-solving based on two categories of simultaneous mental processes (Kowalski and Westen, 2011). These two categories are bottom-up processes and top-down processes (see Figure 6.1).



**Figure 6.1** Bottom-up versus top-down processing.  
Source: Adapted from Weiten (2008:110) *Psychology: themes and variations*, 7th ed. (Briefer version), © 2008, a part of Cengage Learning, Inc. Reproduced by permission.  
[www.cengage.com/permissions](http://www.cengage.com/permissions).

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*Bottom-up processes* are those that register and integrate sensory information. These processes depend on the information from the senses at the lowest or most basic level of perception. The lowest level of the information-processing continuum, the sensory system, takes in patterned stimuli and passes them along through successively higher stages of processing until the brain finally concludes, for example, “This is a career woman.” However, bottom-up processing is not sufficient to recognise patterns and objects – top-down processing is also necessary.

In *top-down processes* existing knowledge and impressions are used to interpret information. Top-down processing emphasises the importance of the observer’s concepts, expectations and prior knowledge – the kind of information stored at the highest level of perception, for example, “Rich people drive Porsche motor vehicles.”

## 6.2.4 Subliminal perception

Subliminal perception occurs whenever stimuli are presented below the threshold (limen) for *awareness*. The term *subliminal perception* was originally

used to describe situations in which weak stimuli were perceived without awareness. Messages were flashed in front of a subject at high speed. Even though the conscious mind did not seem to comprehend these messages, the subconscious instantly understood and acted on them (Weiten, 2008).

Researchers have studied implicit memory, memory illusions and unconscious learning (for example, where a person plays self-help tapes that contain subliminal messages to help him/her concentrate). These researchers have found evidence that perception can take place without awareness (Greenwald, in Weiten, 2008).

Marketers have often been suspected of sending marketing messages subconsciously to consumers, and therefore employing subliminal persuasion. The controversy began when a researcher claimed to have increased popcorn and Coca-Cola sales at a movie theatre after flashing “I want popcorn” and “Drink more Coke” on the screen every five seconds for 1/300th of a second (see box below). Consumer protection groups were concerned that marketers were brainwashing consumers and this approach was declared illegal in Canada and California. Although the researcher later admitted to fabricating this data and despite the fact that scientists have not been able to replicate this study in the meantime, consumers are still suspicious of hidden messages that advertisers may be sending (Lamb, Hair and McDaniel, 2012).

### **Research on subliminal perception**

Researcher James Vicary conducted an experiment during a movie called *Picnic*. He flashed the messages “I want popcorn” and “Drink more Coke” in front of a movie audience for 1/3 of a second every 5 seconds. At this fast rate, it was not possible for viewers to be aware that they had seen the images. The author reported that popcorn sales went up by 57,8% and Coke sales went up by 18,1%.

However, Vicary never released a detailed description of his study and there never has been any independent evidence to support his claims. Rather, his experiment has repeatedly been criticised. The design of the study was flawed because other possible effects on consumption, such as the movie itself and the weather during the showing, could not be ruled out (Solomon, 1996).

The concept of subliminal perception suggests that it is possible to influence peoples' thoughts, feelings and actions by stimuli that

are perceived in the absence of any awareness of perceiving. This type of perception has been found to occur in surgical patients undergoing general anaesthesia.

Another example of subliminal perception has been reported in studies of patients with neurological damage. One example concerns a syndrome called *blindsight*. Patients with blindsight have damage to the primary visual cortex. As a result of this damage, they are often unaware of perceiving stimuli within a restricted area of their visual field (Merikle, 2000). However, while some patients claim not to see particular stimuli, they nevertheless respond on the basis of information conveyed by these stimuli.

There does not seem to be universal consensus on the pragmatic application of subliminal perception. On one hand, studies that reject the possible pragmatic application of subliminal perception report that there is no evidence to suggest that people initiate actions on the basis of subliminal perception (Merikle, 2000). These studies show that, although subliminal perception may allow people to make accurate guesses regarding the characteristics of stimuli, it cannot lead a person to drink Coke or to eat popcorn (as was claimed by James Vicary), and it could therefore not be used effectively to improve a person's performance or to cure a person's bad habits (Merikle, 2000).

On the other hand, studies that do support the influence of subliminal perception on performance report that there is some indication that subliminal interventions (for example, some marketing strategies) may help modify antisocial behaviour by calling for generalised behaviour change (Schiffman and Kanuk, 2004).

Since Vicary's prank in the fifties, most research conducted on subliminal advertising focused on offline approaches. Lamb, Hair and McDaniel (2012), for instance, point out that the online application of subliminal stimuli has not really been considered in psychological literature, although the World Wide Web offers an environment with many opportunities for subliminal advertising. Subliminal effects are further not addressed in most research on e-marketing. The lack of research in this field can probably not be ascribed to the fact that such research is irrelevant or that there are no difference between online and offline applications. Online and

offline marketing practices indeed differ considerably, and consumers' perceptions of online and offline advertising differ significantly. It is envisaged that interest in this type of research will increase in light of the increased popularity of online marketing.

### 6.2.5 Sensory adaptation

The relationship between sensory magnitude and the intensity of the stimulus is not fixed, but varies such that all sensory systems can adapt to prevailing levels of the stimulus. Through the process of sensory adaptation, sensory systems become less sensitive to constant or unchanging stimuli (Nevid, 2012). *Sensory adaptation* refers to the gradual decline in sensitivity to a stimulus as a consequence of prolonged or constant stimulation (Weiten, 2008). Sensory adaptation is an automatic process that keeps one aware of the changes, rather than the constants, in one's sensory input. This is because, like most organisms, humans are interested in changes in their environment that may signal threats or unpleasantness.

Sensory adaptation is not limited to one type of sense. It occurs in all five categories of senses mentioned in Table 6.1.

- The *sense of vision* adapts by adaptation to light. Suppose a student is working on a university assignment and suddenly there is electrical power failure. If she uses a candle or another source of light with a much lower light intensity compared to the original electrical globe, her sense of vision will have to adapt to this dimmer alternative light source. This is called *dark adaptation*, a process in which the eyes become more sensitive to light in low illumination. Consequently, objects that may not have been seen at first in dim light gradually become visible as the eyes' sensitivity to light increases. When eventually the electrical power supply is restored the student may need to squint her eyes to ward off the overwhelming brightness. In this way the reverse process of dark adaptation, namely light adaptation, occurs. *Light adaptation* is the process whereby the eyes become less sensitive to light in high illumination. It typically refers to the adaptation of the visual system to the overall illumination level (Alexander, 2011, p.326).
- The *sense of hearing* adapts to different decibel levels. A decibel (db) is the unit for measuring the volume of sound. Whispering has approximately 30 db, normal conversation has approximately 60 db, and sounds exceeding 120 db can be experienced as painful. Pain provides a signal to avoid certain sounds.

Cumulative traffic noise, such as screeching motorcycles, excessive hooting and revving of car engines can have negative effects on other drivers' concentration. Some countries such as Japan, constantly indicate decibel levels for public awareness of traffic noise at road intersections.

- The *sense of touch* in the skin adapts to, for example, temperature and pain. When taking a cold shower the water temperature feels warmer after a while. Pain receptors in the skin transmit impulses via neural pathways to the brain. The brain contains regions for perceiving pain but also other regions for alleviating pain. The thalamus is involved in perception of pain whilst the limbic system is involved in storing emotions relating to perceiving (experiencing) pain. Emotions influence the toleration of pain. The relief of surviving a serious car accident, for example, may alleviate the hurting of the wound sustained.
- The *sense of balance* adapts to different bodily movements, positions and orientations in space through the *proprioceptive system*. This refers to components of muscles, joints and tendons that provide a person with a subconscious awareness of his/her own body position. When proprioception is functioning efficiently, an individual's body position is automatically adjusted in different situations. For example, the proprioceptive system is responsible for providing the body with the necessary signals to allow us to sit properly in a chair and to step off a curb smoothly.
- The *sense of taste/smell* is located in receptors in the tongue that are innately sensitive to sweet, bitter, sour and salty tastes, and receptors in the mucous membrane of the nose that are innately sensitive to different odours. These receptors adapt as particular food preferences develop or as the body signals what it needs by making one sensitive to particular flavours at particular times. Sensitivity to different odours also changes over time. After some time one's perception of certain odours may diminish. For example, one may cease to notice the perfume one is wearing, although other people can still detect it. The interconnectedness of taste and smell is significant in wine tasting, which involves taste and smell association.

### **Diverting pain perception**

Pain and pain management may be the least understood amongst all of the human senses, yet it is an important aspect in everyday life and in medical and psychological practice. The pattern of stimulation

is more crucial in pain than in any other sense. Pain also displays sensory adaptation, although the process appears to be more complex than it is for other sensory modalities. Studies indicate that our perception of pain is highly subjective and controversial and also influenced by cultural experiences and the related processes of expectations, beliefs and emotional states (Goldstein, 2007; Weiten, 2011; Kowalski and Westen, 2011).

The concept of individual differences may account for how some individuals may become distressed and unable to function after they have incurred a specific kind of injury, whilst it seems possible for others, especially athletes, to continue performing their intended tasks amidst excruciating pain.

Research shows that personality, mood, beliefs and expectation can influence the perception of pain (Weiten, 2012). When patients who were about to undergo surgery were fully informed of the medical procedure and advised to relax so as to alleviate their pain, it was noted that they requested fewer painkillers and could be sent home earlier than their uninformed counterparts (Goldstein, 2007).

Sometimes providing a person who is experiencing a painful episode with alternative and less threatening sensory input can assist the individual to temporarily shift the attention from pain. Research by deWied and Verbaten (in Goldstein, 2007) showed that individuals who were exposed to a painful experiment could tolerate the pain for a longer period of time if they were provided with stimuli that could command enough attention to present some distraction or delayed response to a painful episode. This showed that the content of the distraction was important.

Neurological research on pain perception shows that the brain and spinal cord connection plays a role in sending potentially painful sensory input to the brain. *The Gate-Control Theory* espoused by Ronald Melzack and Patrick Wall in 1965 proposed that the spinal cord contains a neurological “gate” that blocks pain signals or allows them to pass on to the brain. This gate is opened by the activity of pain signals travelling up small nerve fibres and is closed by activity in larger fibres or by information coming from the brain (Weiten, 2008). To control pain one must stimulate gate-closing activity in larger neural fibres (for example, by sending the message that

something feels cold). The opening and closing of the gate determines whether the input is perceived as painful or not (Goldstein, 2007; Weiten, 2012).

The understanding of the physiological, psychological and cultural factors that influence pain perception will aid individuals and experts to experience and control pain more effectively. There is, for example, sufficient evidence, that techniques of distracting the attention from pain will alleviate pain experiences. Distraction techniques include thinking positively and designing pleasant hospital environments (Kowalski and Westen, 2011).

## **6.3 VISUAL PERCEPTION**

We interpret so much of our world based on sight, that we often simply say, “I see” when we grasp something. Visual perception is a complex process which begins with sensation, but after that visualisation becomes quite individualised. Perception depends, for example, on experience, knowledge, cognition, or our system of symbols.

There further is an idiomatic expression that something appears “in the mind’s eye”. This means that pictorial representation is not only a map of real objects, but also a reflection of the human mind that makes them. Although visualisation is a common action that people do almost every minute of the day, the theory of mental pictures, as well as the full process of cognition, is not yet well understood (Barat, 2007, p.240). Visual imagery plays an important mental role, quite similar to information processing, memory, learning, abstract thinking and linguistic comprehension.

Visual perception is widely applicable in I-O Psychology, for example, in the context of a person’s physical working environment, which includes objects and complex interactions with people. Aspects of visual perception are also relied on heavily in the advertising industry.

### **6.3.1 Selective attention**

We are constantly bombarded with millions of stimuli or data, but our brains assist us in making sense of this “bombardment” through the system of perception. It does so via three processes that happens instantly and almost at once: selection, organisation and interpretation (Bokeno, 2011).

Because we are exposed to much more data than we can manage, our brain

firstly assists us in selecting the data we want to attend to. Many aspects may determine what data we focus our attention on, but *contrast* particularly influences this process: we are, for instance, attracted to larger things against a smaller background and vice versa, things that move against a still background, and vice versa, things that repeat, things that are familiar in a strange environment and things that are different in a familiar environment (Bokeno, 2011). Owing to various limitations, a person's attention focuses on only a small portion of the visual and auditory stimuli available at a given moment, whilst ignoring other aspects (Baron, 1996). Thus, a person selectively attends to certain aspects of his/her environment whilst keeping other aspects in the background (Johnston and Dark, in Baron, 1996).

*Selective attention* has obvious advantages, because it allows one to maximise information gained from the object of one's focus, whilst reducing sensory interference from other, irrelevant or threatening sources. For example, a student can attend to an important lecture without being diverted by the sighs and yawns of other students in the lecture room.

As perceivers, people are subject to attention fluctuations. *Attention fluctuation* illustrates one way in which people deal with the challenge of dividing their attention between different tasks. It also explains why a surgeon will more readily notice an "imperfect" nose than an engineer will – the engineer, in turn, will more easily notice errors in the construction of a building.

In some cases, people seem incapable of ignoring information. This is evident in what is known as the *Stroop effect*. If words are printed in coloured ink, it is normally an easy task to name the colour of the ink. However, if the words are colour names (for example, "red") that appear in a different colour (for example, in green ink), people have difficulty naming the colour of the ink because they tend to read the word instead of paying attention to the colour of the ink.

Although people can control the focus of their attention to some extent, certain characteristics of stimuli may cause one's attention to shift suddenly.

Advertisers, for example, capitalise on attention-grabbing strategies. Some stimulus attributes that are particularly relevant to the design of advertisements and packaging, because of their impact on attention and perception, are features such as contrast and novelty. For example, the advertisement below shows a bottle that is small compared to the roulette wheel.

A person's focus of attention is also affected by higher-level cognitive processes, such as motivation, expectancy and interest. This may explain why an employee may take a special interest in a supervisor that he/she expects will

positively influence his/her progress.



MARTELL **5** STAR BRANDY

IT'S A QUESTION OF STYLE

**Figure 6.4** An advertisement that uses contrast and novelty.

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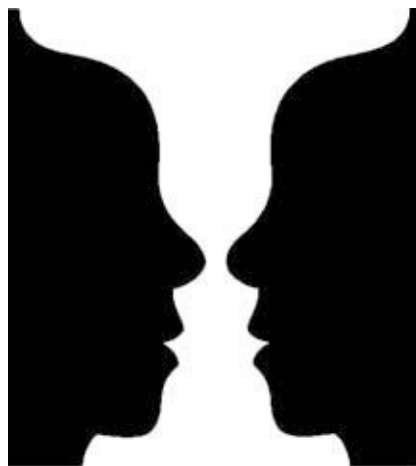
### 6.3.2 Form perception

Although we may have selected and attended to particular data in the environment, many messages are still ambiguous – the data can be organised in more than one way. Because we are human beings, our mind has developed a “frame of reference” or “mental model” of how things should be, and we organise data according to how we think it should be (Bokeno, 2011).

If a person lacked shape perception, his/her visual world would consist of random patches of light and dark, and a disorderly mass of coloured and colourless fragments. But most people perceive a visual world that contains objects with distinct borders and clear-cut shapes, because the mind organises a visual field into a pattern or a whole that has meaning.

Gestalt psychologists studied various types of perceptual organisation. They believed that there are two main visual components necessary for a person to see an object properly: a *figure* (the object) and the *ground* (the background or surroundings in which the object occurs). The concept of figure-and-ground was first introduced by a Danish phenomenologist called Edgar Rubin (1886–1951). Figures 6.2 and 6.3 below show two widely known examples of this principle.

**What do you see?**

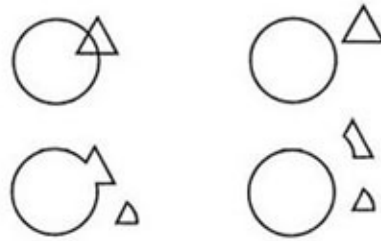


**Figure 6.2** This figure shows an image called Rubin's vase. In this example, figure-ground cues have been carefully balanced, but the black and white regions are generally not perceived as adjacent. Instead perception switches back and forth, and the borders belong either to the vase or to the faces.

**Figure 6.3** This figure can either be seen as an old woman or as a young woman who is looking away from the viewer. As the perception changes, the objects within the picture change. A nose becomes a jaw, an eye becomes an ear, a necklace becomes a mouth.

Although the figure and ground may sometimes interchange spontaneously, on average, one's perception of figure and ground is stable. A picture on a wall (the figure) can be clearly distinguished from the wall it hangs on (the ground). A CEO (the figure) can be seen distinctly against the cityscape shown in the window beyond (the ground). In the same line of thought, the words on this page are the figure whilst the white paper is the ground.

The main premise of the Gestalt perspective was identified as "the whole is more than the sum of its parts". This means that a configuration of small elements forms a bigger whole, which is perceived as one meaningful unit. The emphasis on "wholes" led the Gestalt psychologists to focus on determining the principles of understanding perceptual organisation. The Gestalt laws of perceptual organisation are simply a series of rules that specify how people organise and interpret small parts into wholes, and how these visual elements are grouped into higher-order figures (Goldstein, 2007; Weiten, 2012) (see Figure 6.5).



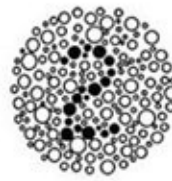
#### LAW OF PRÄGNANZ

Viewers tend to organise elements in the simplest way possible.



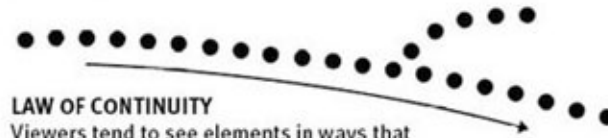
#### LAW OF PROXIMITY

Elements that are close together tend to be grouped together.



#### LAW OF SIMILARITY

Elements that are similar tend to be grouped together.



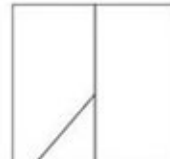
#### LAW OF CONTINUITY

Viewers tend to see elements in ways that produce smooth continuation.



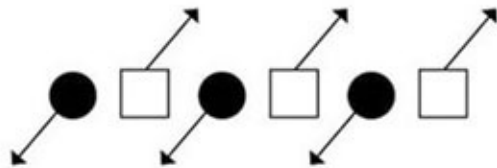
#### LAW OF CLOSURE

Viewers tend to supply missing elements to close or complete a familiar figure.



#### LAW OF SYMMETRY

Viewers tend to perceive elements that have equal proportions as a balanced whole.



#### LAW OF COMMON FATE

When objects move in the same direction, one tends to see them as a unit.

**Figure 6.5**

Laws of perceptual organisation.

Source: Adapted from Weiten (2008:110) *Psychology: themes and variations*, 7th ed. (Briefer version), © 2008, Wadsworth, a part of Cengage Learning, Inc. Reproduced by permission.

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“*Prägnanz*” is a German word meaning “potent, full of meaning.” The *Law of Prägnanz* (also known as the *Law of Good Figure*, the *Law of Simplicity* or the *minimum principle*) is the basic organising principle that asserts that people are naturally predisposed to experience things in as good a *Gestalt* as possible. A “good” *Gestalt* means a form or shape that is perceived as meaningful. According to the Law of *Prägnanz*, people tend to organise elements in the most basic or simplest way to “make sense”. It is the tendency to interpret ambiguous images as simple and complete, instead of complex and incomplete (Lidwell, Holden and Butler, 2010, p.144). For example, a person may see a variety of foreign-manufactured cars being transported in a goods train and might notice that they are all white, and then conclude that people only want white cars.

The perception of a form as a meaningful, simplified whole is also influenced by other laws that have been produced by Gestalt psychologists:

- The *Law of Proximity* indicates that objects close to each other are more inclined to be perceived as a unit or pattern (it refers to perceiving things seen together as a group). This does not apply only to visual stimuli, but also to various types of information. For example, one might perceive a fire to have been caused by agitators, because at that time riots are rife.
- The *Law of Similarity* indicates that objects similar to each other are perceived as belonging together as a unit (perceiving similar things as a group). For example, in a filing system that codes its files by colour, files of a specific colour would be placed together, irrespective of their individual contents. Another example would be that men dressed in suits in a supermarket will be perceived as “professionals”.
- The *Law of Continuity* indicates that people tend to perceive smooth, continuous wholes, rather than discontinued fragments (the tendency to perceive objects that follow the same directional pattern as grouped together). For example, sometimes marketers first show one half of an advertisement and then show the rest of the advertisement, which is meant to build on the contents of the previous half.
- The *Law of Closure* indicates that if enough of a shape or enough information is indicated, people are most likely to perceive something as complete by ignoring gaps in a figure or in a set of information (the tendency to perceive things as entire entities). For example, in an interview, a well-spoken and well-dressed candidate may be seen as efficient even before her/his total fit to the job is considered.

- The *Law of Symmetry* indicates that a stimulus situation is perceived as a balanced whole. For example, the arrangement of furniture in an office, or the similar proportions of the seating, will be seen as a harmonious whole.
- *The Law of Common Fate*, which is sometimes called the *Law of Simultaneous Movements*, suggests that aspects of a perceptual field that move or function in a similar manner will be perceived as a unit (the tendency to perceive things that move together as grouped together). For example, if you see hundreds of fish swimming together in the same direction, the fish will be perceived as a unit, and if a few fish were to break away from the big group and start swimming in another direction, this would create a new unit.

All of these laws of perceptual organisation use the *minimum principle* – our eyes see that what is simplest to see (Filingeri, 2011). Gestalt laws seem to function independently. However, when people perceive a stimulus field it seems as if all the laws are working together.

Motivation may also influence the way an event is perceived. At sporting events, for example, the same episode may be interpreted in exactly opposite ways by fans of two different teams. In this instance, people are interpreting the episode with what they regard as an open mind, but their subjectivity colours their perceptions. As mentioned previously, two processes which shape our perception of a particular situation are assimilation and accommodation. During assimilation, our mental model encourages us to “change” the data to fit our existing beliefs, attitudes or values – we “see” data according to what we already believe. We can assimilate data by leveling (that is, omitting certain details of an event or experience to leave only those things that clearly fit our mental model) or by sharpening (the opposite of leveling) which allows us to edit experiences by focusing only on those details that fit our mental model. Lastly, we can completely distort the data or contents of the experience. During accommodation, we change our frame of reference or mental model to fit the data we have selected (Bokeno, 2011).

### **6.3.3 Depth and distance perception**

Except when a person is reading, most of one’s visual activity requires looking at objects that are solid and have depth and distance dimensions. There is no single explanation for depth, distance, height, and width perception, as one uses many cues. These cues are divided into two categories, namely monocular cues (cues that can use just one eye) and binocular cues (cues using both eyes).

*Monocular cues* for depth or distance perception include the following:

- *Size cues*: The larger the image of an object on the retina, the larger and closer the object is judged to be.
- *Linear perspective*: Parallel lines appear to converge in the distance; the greater this effect, the further away an object appears to be.
- *Texture gradient*: The texture of a surface appears to become smoother as distance increases.
- *Atmospheric perspective*: The further away objects are, the less distinctly they are seen. Dust, smoke and haze may interfere with one's perception of them.
- *Overlap (interposition)*: If one object overlaps another, it is seen as being closer than the one it covers.
- *Height cues (aerial perspective)*: Objects that are below the horizon, or lower down in one's field of vision, are perceived as closer, whilst objects that are higher up, above the horizon, are seen as further away.
- *Motion parallax*: When one travels in a vehicle, objects far away appear to move in the same direction as the observer, whereas objects that are close seem to move in the opposite direction. Objects at different distances appear to move at different velocities.

Binocular cues for depth perception stem from two primary sources:

- *Convergence*: In order to see close objects, a person's eyes turn inwards, towards one another; the greater this movement, the closer such objects appear to be.
- *Retinal disparity (binocular parallax)*: Both eyes observe objects from slightly different positions in space; the difference between the two images is interpreted by the brain to provide another cue to depth.

#### **6.3.4 Perception of movement or motion**

Sometimes an illusion of motion may be created using non-moving stimuli. Two or more stimuli that are in slightly different positions may be flashed one after the other with precision co-ordination such that viewers perceive real movement between the stimuli. This is called *apparent movement*, *stroboscopic movement* or the *phi phenomenon*. Some neon signs use adjacent bulbs switching on and off in sequence to create the impression of movement.

Although the perception of movement occurs in terms of a change in the position of an object relative to the observer, an observer, however, also has another frame of reference against which to judge movement, namely the

normally stationary scene surrounding the object. If a person observes the movement of an object against a stationary background, he/she will most likely perceive its motion correctly. But if a stationary object is seen against a moving background, it may seem as if the object is moving. This is known as *induced movement*.

Induced movement explains why a person in a car may feel that he/she is moving backwards when waiting at the traffic lights next to a large truck that is slowly moving forwards. In a situation like this, the truck fills one's field of view and one's perceptual system interprets its movement to be the result of one's own movement.

### 6.3.5 Colour perception

Some experts believe that a single theory may not fully explain the process of colour perception. However, two theories of *colour vision*, namely trichromatic theory and opponent process theory may explain a lot of our experiences in this field.

According to the *trichromatic theory*, people have three different sensors for colour and each type of sensor reacts to a different range of wavelengths of light. The tremendous range of colours we are able to perceive can be ascribed to the many ways in which these three types of sensors can be activated in combination with one another. The trichromatic theory particularly applies to our colour perception because people with normal colour vision have three different kinds of cones in their eyes. These types of cones respond to light in the yellowish-red wavelengths, to light in the green wavelengths and to light in the bluish-purple wavelengths respectively. At least two of the cone types will typically respond to a certain wavelength of visible light, but how much they respond varies. The combination of signals produced by the three types of cones enables the brain to respond to various colours.

An alternative theory about colour vision is the *opponent process theory*. This theory maintains that three sets of colour pairs inhibit one another in our perception of colour: red inhibits the perception of green (its "opponent"), yellow inhibits the perception of blue, and black inhibits the perception of white. This theory also explains colour perception in the sense that we cannot mix certain combinations of colours such as reddish green or bluish yellow. We only see brown or green respectively. Opponent processing probably results from activity in a region of the thalamus that receives visual information, and input to this region from one colour of an opposing pair stop the inputs from the other

colour in the pair. Inputs carrying red information therefore, may prevent the firing of neurons that carry green information.

These two theories can be combined to explain colour blindness, a well-known imperfection of colour vision in humans. It is ascribed to a photoreceptor deficit in which one of the pigments of the L, M or S cones is missing or has an abnormal spectral sensitivity (Daw, 2012, p.64). This condition is quite common, affecting 8% of men (the genes for the L and M cones are on the X chromosome) and 0.04% of women. The condition of colour blindness has been studied at least since the time of the chemist, John Dalton (1766–1844), who used his own colour blindness as example (Kowalski and Westen, 2011).

Very few people, however, are actually unable to see any colours. Most people who are termed colour blind are simply not able to distinguish certain colours. The most common form of colour blindness is red-green colour blindness. People with this condition tend to have a shortage of cones that respond to either the red or green wavelengths (as based on the trichromatic theory). Therefore, according to the opponent process theory, the thalamus does not receive enough input to make it inhibit either red or green colours and people therefore cannot tell the difference between the two colours (Comer and Gould, 2012).

In light of the fact that people tend to instinctively relate and respond to certain types of colours, colour schemes are widely used to convey important information in facilities such as factories, industrial plants, hospitals and offices. It is believed that the effective use of colour schemes is an economical option to improve people's working conditions. The effective design of colour schemes may improve productivity, reduce work fatigue, minimise rework or quality problems, and increase work satisfaction and safety (Kim 2004, in Yi, Wim, Kim and Koo, 2012).

### **6.3.6 Extrasensory perception**

People sometimes refer to a person's "sixth sense," which is the ability to know something without the use of the five basic senses. In more scientific terms this refers to *extrasensory perception* (ESP), or literally, perception that is not based on sensation.

A more recent concept, *psi*, is currently used instead of the older term, ESP. Bem and Honorton (in Baron, 1996) define *psi* as unusual processes of information or energy transfer that are currently unexplained in terms of known physical or biological mechanisms. Parapsychologists, who study *psi* and other

paranormal events, suggest there are actually several distinct forms of psi (or ESP), as the box below explains.

### **The several distinct forms of psi (or ESP) suggested by parapsychologists**

One form of psi is pre-recognition, the ability to foretell future events. Fortune-tellers earn their living from the supposed ability to make such predictions. Clairvoyance, the ability to perceive objects or events that do not directly stimulate sensory organs, is another form of psi. Telepathy, a skill used by mind-readers, involves the direct transmission of thought from one person to another. Psychokinesis, or the ability to affect the physical world purely through thought, is also often associated with psi. Bending spoons or moving objects with the “mind” or performing feats of levitation (making objects rise into the air) are examples of psychokinesis.

Some psychologists are sceptical about the existence of psi, for the following reasons:

- The first and probably most important reason for doubting its existence is the repeated failure to replicate instances of psi. It even appears that the more studies of psi are controlled for scientific standards, the less evidence they provide; psi researchers need to find a convincing method for demonstrating its existence (Smith, 2010).
- Secondly, scientific understanding states that all aspects of one’s behaviour must ultimately stem from biochemical events, yet it is not clear what physical mechanism could account for psi.
- Thirdly, much of the support for psi has been obtained by people already convinced of its existence. Until satisfactory evidence emerges, its critics will remain sceptical.

Finally, “naïve realism” refers to the trend that people often assume that their perceptions, judgements and beliefs are correct, without considering whether this is indeed the case. This type of behaviour is described as “naïve”, because:

- It reflects a sort of instinctive, innocent faith in the reliability of one’s own perceptions.
- It reflects an extreme lack of knowledge of the ways in which our own

actions, motivations, beliefs, expectations and experiences might shape and influence what we perceive.

The term “realism” reflects a belief in the existence of an objective reality, independent of our subjective perceptions. Naïve realism therefore refers to an innocent, unchallenged presumption that our perceptions, beliefs and judgements are true (Jussim, 2012). However, a number of biases and errors that we often make during social perception have been identified.

## 6.4 PERCEPTUAL CONSTANCY

When one moves around, one perceives a stable world in which objects do not change haphazardly, but retain their characteristics under many different viewing conditions. A house or a face can still be identified as such, irrespective of whether one views it from the front or the side, at dawn or at dusk, from near or from far (Zeki, 2011). This can be explained by the phenomenon called *constancy*, which is the tendency for qualities of objects to seem to stay the same, despite changes in the environment in which they are perceived. A number of different constancies have been identified, namely size constancy, shape constancy, and lightness and colour constancy.

- *Size constancy* means that an object seems to stay the same size despite changes in the distance between the viewer and the object. The reason for this is that the viewer is familiar with the usual sizes of objects and takes distance into account when perceiving them. For instance, whether a bus is close, two blocks away or two kilometres away, the viewer perceives it as a large object.
- *Shape constancy* means that an object seems to stay the same shape, despite changes in its orientation towards the viewer. A compact disc, for instance, is not perceived as an oval when one views it from an angle; one still perceives it as round.
- *Lightness and colour constancy* is demonstrated in one’s visual system. An object seems to stay the same lightness and colour despite changes in the amount and colour of light falling on it. A pair of black shoes, for instance, continues to look black in bright daylight or artificial light. Coloured light can, however, change the apparent colour of an object.

Constancy is a vital characteristic of our perceptive systems. Without constancy, our recognition of an object, a surface or a situation would depend on numerous highly specific conditions, taking into account all the changes in particular

situations, and would probably be an almost impossible task. Zeki (2011) points out that the above types of constancy illustrates an ubiquitous function of the cerebral cortex in which most of its areas are involved, namely that of abstraction.

### 6.4.1 Illusions

Perceptual constancies, depth cues and principles of visual organisation (such as the Gestalt laws) help people to perceive the world accurately. Sometimes, however, perceptions are based on inappropriate assumptions, caused by optical illusions.

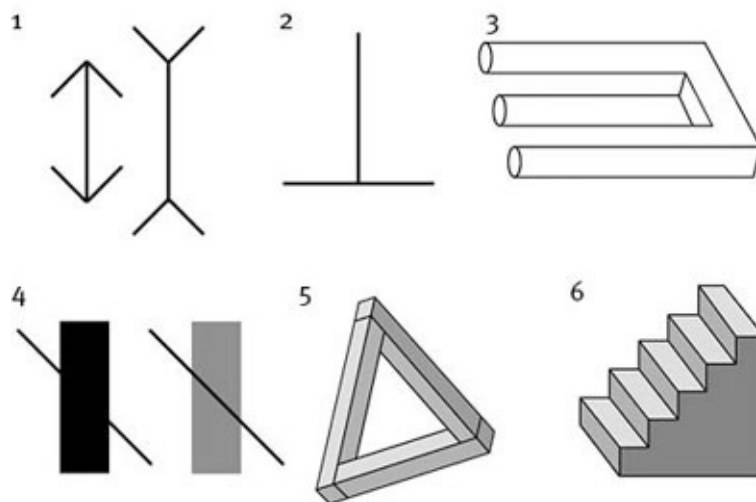
An optical illusion involves a discrepancy between the appearance of a visual stimulus and its physical reality. It is a visual illusion characterised by visually perceived images that differ from objective reality.

There are two types of illusions, namely:

- Those illusions that are due to physical processes.
- Those illusions that are due to cognitive processes.

Illusions that are due to the distortion of physical processes include mirages, in which one perceives images that are not really there, such as the shimmering “water” one often seems to see on a dry road ahead, especially when it is hot.

Illusions that are due to cognitive processes are indicated in Figure 6.6.



**Figure 6.6**

Factors that influence perception

Source: adapted from Robbins, Stephen P., *Organizational behavior: concepts, controversies and applications*, 9th ed., © 2001. Printed and electronically reproduced by permission of Pearson Education, Inc., Upper Saddle River, New Jersey.

In the first image, the vertical lines are actually the same size but the right-hand line seems to be significantly longer. This is called the Müller-Lyer illusion.

In the second image, although the lines are of equal length, the vertical one seems longer. This may be because the vertical line seems to recede in depth. It has been noted that people who dwell in enclosed areas such as forests, who are not used to vast open spaces and who have little opportunity to see for great distances would be less susceptible to the horizontal-vertical illusion than those accustomed to long uninterrupted views.

The third image is called the “two-pronged trident”. Look at it for a few moments and then try to draw it without looking at it. How many prongs are there?

The fourth image is called the Poggendorff illusion, as it was first described by Johan Poggendorff. It involves the brain’s perception of the interaction between diagonal lines and horizontal and vertical edges. In the left picture, the straight black line is obstructed by a darker shadow rectangle which makes the line appear disjointed even though it is in fact straight. The continuity of the line is made much clearer in the picture on the right, in which the shadow is much lighter.

In the fifth image, the parts of the figure seem to be physically connected at the intersections. However, upon careful analysis, it is clear that the parts could not be joined together physically.

Regarding the sixth image, most people who utilise the Western style of reading (from left to right) would describe it as a set of stairs going upwards. People who use the Arabic reading style (which goes from right to left), would read this as a set of stairs going downwards. This is a good example of an illusion that is based on a strong cultural influence.

Another type of illusion is that of area, illustrated vividly by the well-known “moon illusion”, or the phenomenon that the moon looks bigger at the horizon (about 30% bigger) than at its highest point in the sky (Baron, 1996). According to some experts, the moon appears about 1.5 times larger on the horizon than at its zenith even though the images on our retinas are the same (Howard, 2012). A possible explanation for the moon illusion is that when the moon is near the horizon, one can see that it is further away than trees, houses and other objects. When it is overhead at its zenith, such cues are lacking. Thus the moon appears larger near the horizon because there are cues available that allow one to perceive that it is very far away. In this case, one’s tendency towards size

constancy again leads one astray.

Several theories have been developed to explain why optical illusions occur, including the carpentered world theory and the front-horizontal foreshortening theory. The *carpentered world theory* suggests that people mostly are used to seeing things that are rectangular in shape and unconsciously expect things to have square corners. The *front-horizontal foreshortening theory* suggests that people tend to interpret vertical lines as horizontal lines extending into the distance. These two theories have two ideas in common. Firstly, both assume that the way we see the world is developed over time through our experiences. Matsumoto and Juang (2013), however, point out that although learning helps us to “read” our environment correctly most of the time, it often causes us to misinterpret optical illusions. Secondly, these theories both are based on the idea that we live in a three-dimensional world that is projected onto our own eyes in two dimensions. A number of cross-cultural studies, however, have challenged some of these traditional assumptions about optical illusions, as one would expect if experience contributes to our perceptions. In some of these studies, it was evident that the effects of the illusions differed by culture, but that something other than education was involved. In this regard the Müller-Lyer illusion is one of the illusions that have been found to be influenced by cultural experiences, for example, with regard to the nature of architecture and depth perception (Kowalski and Westen, 2011). In general researchers agree that culture must have some effect on the way the world is “seen”. The causes of these differences in perception have been investigated in a considerable body of research ever since. According to Weiten (2008), optical illusions illustrate that perceptions of objective reality may be largely wrong and subjective, resulting from misperceptions and even illusions that are due to the influence of many personal and contextual factors. Visual illusions are, however, completely normal, unlike elusions, which may reflect abnormal thought processes.

#### **6.4.2 Factors influencing perception**

A number of factors in the perceiver, the perceived objects and the situation may shape and sometimes distort perception.

##### **6.4.2.1 The perceiver**

The expression “beauty is in the eye of the beholder” suggests that perception is *subjective*. Subjective factors include attitudes, motives, interests, prejudices, preferences, past experiences and expectations. People’s attributes are also

coloured by the perceiver's subjectivity. For example, judgement errors in the selection of one applicant rather than another may result from such subjective attributions of the perceiver to the perceived.

Goldstone, Landy and Son (2012) point out that our perception and high-level cognition are more closely related than one would expect. Perception is not limited to what we first "see" and we indeed adapt our perceptual systems to fit our higher-level cognitive needs. Experts such as radiologists, wine tasters, and Olympic judges, develop higher sensitivity levels which enable them to distinguish between low-level, simple features. Expertise in perceiving visual stimuli as varied as butterflies, cars, chess positions, dogs and birds is associated with an area of the temporal lobe known as the fusiform face area (Buckley, Gauthier and Tarr, 2006, in Goldstone, Landy and Son, 2012). In general, people's perception in such situations adapt to the categories or responses necessary for performing a particular task, and these adaptations often occur at an early stage of processing.

#### **6.4.2.2 The perceived object's characteristics**

Characteristics in the object being observed can affect what is perceived. For example, rowdy people are more likely to be noticed in a group than quiet ones. Motion, sounds, size and other attributes of objects influence the way they are seen.

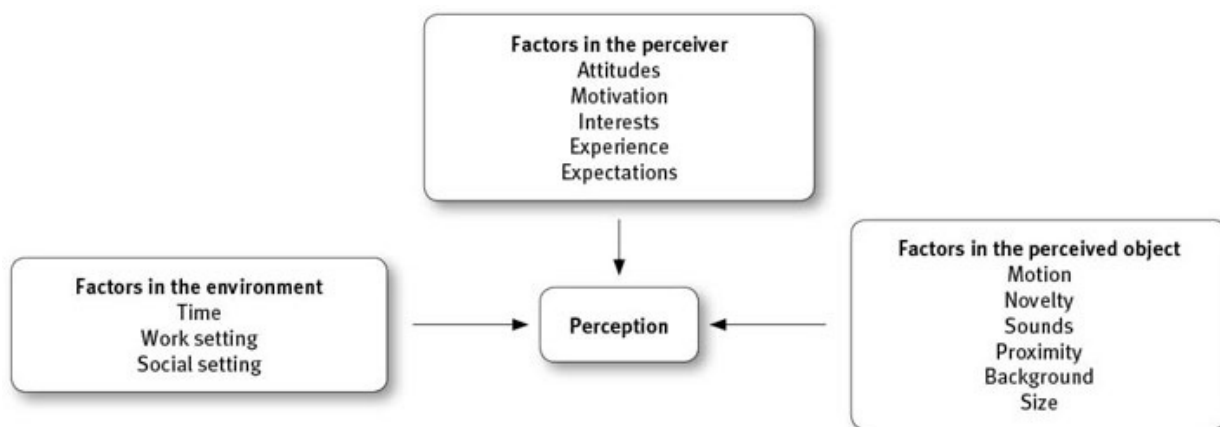
#### **6.4.2.3 The situation and culture**

Perceptions are seldom interpreted without consideration of the context in which the stimulus occurs. This context is central to selective attention, for example, an individual who has just terminated a relationship is more likely than other people to notice the happy couples passing by. The time at which an object or event is observed can influence attention, and therefore perception.

Many psychologists believe that culture is represented in the human mind, that people's mental models of culture influence their ways of thinking, feeling and behaving, and that those mental models can be accessed. Regardless of culture, our perceptions of the world do not necessarily match the physical realities of the world, of our senses. Much of what we know about cultural influences on perception comes from cross-cultural research on visual perception, particularly optical illusions such as the Müller-Lyer illusion (Matsumoto and Juang, 2012).

Research over the past two decades has demonstrated interesting and

important differences in the way people of different cultures perceive and think about their worlds. Factors influencing perception are indicated in Figure 6.7. Cumulatively, these findings raise questions about the source of these differences. The emphasis on rules and categories, and the tendency to focus on salient objects independently from their context, was found to be a trait that is shared by people in Western cultures. In contrast, people in east Asian cultures were found to be more disposed to attend to the context, and to the relationship between the objects and their context. Researchers who explored mechanisms underlying such cultural differences reported that there is likely to be a high probability of persistent differences in perceptual processes if the people whose perception is being compared are taking part in particular social practices (Nisbett and Miyamoto, 2005).



**Figure 6.7** Attribution theory  
Source: adapted from Robbins, Stephen P., *Organizational behavior: concepts, controversies and applications*, 9th ed., © 2001. Printed and electronically reproduced by permission of Pearson Education, Inc., Upper Saddle River, New Jersey.

## 6.5 INTERPERSONAL PERCEPTION

When one interacts with people, one is constantly engaged in person perception, or the process of forming impressions of others. This process of forming impressions of others is universal and is very important, as it is the basis for further social interaction. One's initial impression forms the basis for organising further information, and whilst one may find that one's initial impression is incorrect, it is likely that it will serve as the foundation on which one's lasting

impression is built (Tyson, 1987).

Although one's perception of people and of physical objects involves some of the same general perceptual processes, person perception is more complex for at least three reasons:

- Firstly, in forming impressions of others, one tries to perceive qualities that one cannot observe directly – one has to infer them from other people's appearances and behaviour.
- Secondly, one sees people as being causal agents, that is as having motives and intentions that underlie their observed behaviour. Consequently, one assesses what the person's motives and intentions might be.
- Thirdly, one knows that individuals can try to manipulate one's impressions of them and even deceive one.

For these reasons, the “figuring-out process” involved in person perception is especially subtle and challenging (Goldstein, 2007).

Impressions may often be inaccurate because of the many biases and fallacies that occur in person perception. This is influenced by impression formation, attribution, prejudice and discrimination.

### **6.5.1 Impression formation**

People tend to use a number of shortcuts when forming impressions about others. These shortcuts may be useful for quickly forming accurate perceptions and for making predictions, but they can involve distortion.

#### **6.5.1.1 Schemas**

Individuals tend to categorise one another in terms of schemas. A *schema* is a generalised idea about a frequently encountered object, event or person. According to Weiten (2008), there are a number of different types of social schema in interpersonal perception, and these correspond with the various aspects of the social world. A person schema consists of selected bits of information about a person, organised into a coherent picture (Matlin, 1992). In this way people are labelled and categorised, such as social climbers, materialists, individualists or feminists.

A second type of schema is one's self-schema, a cognitive framework of the way one thinks about oneself, such as being ambitious or motivated.

One also has role schemas about how people in particular positions, jobs or roles should behave (such as being conformist or innovative). A common

misconception is that once a successful businessperson reaches the top of an organisation, he/she has achieved the ultimate success and has learnt all there is to be learnt. However, senior managers may actually often lack adequate skills and preparation for this role, which may impact negatively on their performance.

There is also the type of schema that is concerned with events and their usual sequence over a period of time. These schemas are called *event schemas or scripts*, and are generalised expectations about how one, or other people, should behave in particular situations, and the sequence in which the behaviour should occur (Tyson, 1987). For example, event schemas could concern protocol at formal official meetings.

Once a schema has been formed or activated, it influences both what people perceive and remember. Thus, simply identifying a new neighbour as a politician can lead to the assigning of characteristics such as “outgoing” and “power-loving” to the person, without these necessarily being correct. One may tend to observe and remember the person’s behaviours that are consistent with one’s schema, whilst filtering out or forgetting information that does not fit one’s schema.

#### **6.5.1.2 The primacy effect**

The *primacy effect* is the tendency for early information to be considered more important than later information. During interpersonal perception one tends to focus on attributes that are immediately apparent, such as talkativeness, grooming, gender and general appearance. This prevents one from paying close attention to information acquired later about a person.

An important by-product of the primacy effect is the self-fulfilling prophecy. A *self-fulfilling prophecy* operates in situations where one’s expectations about someone lead him/her to act in ways that confirm our original expectation. The Pygmalion effect (Rosenthal and Jacobson, 1968, in Inamori, Analoui and Kakabadse, 2011) is a form of self-fulfilling prophecy which explains how perception /expectation tends to affect performance. It refers to a situation in which some students or employees perform better than others, simply because teachers or managers have more positive expectations of them (Inamori, Analoui and Kakabadse, 2011, p 34). That is why a supervisor’s initial treatment of employees, based on high expectations, may influence the employees to live up to these expectations.

#### **6.5.1.3 Effects of physical appearance**

Studies have shown that people's judgements of other people's personalities are often influenced by their appearance, especially their physical attractiveness. One tends to ascribe desirable personality characteristics to people who are good-looking, and to perceive them as more sociable, friendly, poised, warm and well-adjusted than those who are less attractive (Eagly, Ashmore, Makhijani and Longo, in Weiten, 2008). Some research findings, however, suggest that there is little correlation between attractiveness and personality traits (Feingold, 1988).

#### **6.5.1.4 Stereotypes**

*Stereotypes* are widely held beliefs that people have certain characteristics because of their membership of a particular group. Stereotyping is a normal cognitive process that saves the time and effort required to understand people individually (Macrae, Milne and Bodenhausen, in Weiten, 2008). It saves energy by simplifying one's social world and makes it easier for one to understand people and events, because it generalises and integrates a lot of information. Stereotypes, however, are often broad overgeneralisations that ignore the diversity within social groups and lead to inaccurate perceptions of people.

One explanation for the power and persistence of stereotypes is the fact that they, just like culture, are learned in a variety of ways, particularly during the socialisation process. Many stereotypes are indeed generated by mass media and maintained widely through a variety of factors such as advertisements, movies, TV sitcoms, soap operas and reality shows. The most common stereotypes are those based on gender and on membership of ethnic or occupational groups (Weiten, 2008). People who hold traditional gender stereotypes may assume that women are emotional, submissive, illogical and passive, whilst men are unemotional, dominant, logical and aggressive. Occupational stereotypes include perceiving lawyers as manipulative, accountants as conforming, artists as moody and unionists as aggressive and defiant.

#### **6.5.1.5 The halo effect**

When one draws a general impression about a person based on a single characteristic, such as intelligence or appearance, a *halo effect* is operating (Robbins, 2005). Thus someone may be considered intelligent simply because he/she speaks well, whilst his/her social or arithmetic inadequacies are not taken into consideration. If impressions are based on a positive trait, the person is likely to be overestimated, whereas impressions based on a negative trait may result in a general underestimation of the individual. This has also been referred

to as the *horns effect* – everything the person does, even if it is remarkable, will be diminished in the eyes of the observer because of this general underestimation (Belker, McCormick and Topchick, 2012).

#### **6.5.1.6 Contrast effects**

*Contrast effects* can also distort perceptions because one does not evaluate somebody in isolation. One's reaction to a person is often influenced by other people one has recently encountered. This is especially true in an interview situation, where a candidate may receive a more favourable evaluation if he/she is preceded by mediocre applicants, rather than by strong applicants (Aamoodt, 2013).

#### **6.5.1.7 Projection**

Projection involves attributing one's own feelings, thoughts or motives to other people (Weiten et al., 2012). Projection can distort one's perceptions about others, because people are not perceived as they are (Jussim, 2012). In some personality tests projection is used to assess how people assess themselves. Projective techniques consist of a variety of disguised "tests" that contain ambiguous stimuli, such as incomplete sentences, untitled pictures or cartoons, ink blots, thought-bubbles, word-association tests and other-person characterisations. The theory behind projective tests is that respondents' inner feelings influence how they perceive such stimuli. The stories they tell or the sentences they complete in response to the tests are actually projections of their inner thoughts, even though they may attribute their responses to something or someone else. Thus, their responses are likely to reveal their underlying needs, wants, fears and motives, irrespective of whether they are fully aware of them. Projective techniques are useful research tools and can be applied in both qualitative and quantitative research. These types of techniques are useful when respondents are unable or unwilling to respond to direct questioning, or where direct questioning may elicit socially desirable responses (Donovan and Henley, 2010).

#### **6.5.1.8 The in-group and out-group dynamic**

As the process of stereotyping illustrates, schemas are activated when one identifies a person as belonging to a specific group. A related phenomenon, called the *in-group and out-group dynamic*, concerns the relationships between in-groups and out-groups. The intergroup bias occurs when an individual

observes the actions of one or more members of another social group and attributes them to the characteristics of that group. The in-group is that of the individual making the attributions whilst the out-group is being observed. Members of an in-group tend to favour their group over others.

Another aspect of attribution is the *out-group homogeneity effect*, which states that out-group members are not only seen as being different from the in-group, but also seen as being more similar to each other and more interchangeable with each other. Some people think that they and members of their race look unique, but members of another race all look the same. This is an example of this aspect of intergroup bias.

### **Explaining intergroup bias: Social-Identity Theory**

One explanation for intergroup bias is the Social-Identity Theory. This theory states that people need to maintain their self-esteem by associating themselves with a group that reflects some aspect of themselves. They then feel the need to view their group as positively as possible in order to make themselves feel better.

This dynamic may create even greater perceptual distortions or differences when factors such as gender (male or female), ethnicity (races) and nationality (countries) are part of group comparisons, as such groups may have less contact and therefore share less information about each other (Goldstein, 2007).

#### **6.5.1.9 Selectivity in person perception**

When judging other people, one tends to do so selectively, according to one's own schemas, interests, background, experience, attitudes and even bias. Griffin (2011) points out that managers cannot pay the same degree of attention to every piece of information, so they often apply selective perception. *Selective perception* allows one to “speed-read” others, but one runs the risk of forming inaccurate impressions and confirming one's negative expectations of others. Because people often see what they want to see, they can draw unwarranted conclusions from an ambiguous situation. If, for instance, a rumour circulates in one's organisation that lay-offs are considered, and a senior executive visits the organisation, it can be interpreted as a step in this direction, whilst the executive may merely be on a routine visit to the organisation.

### 6.5.2 Attribution

One of the ways in which perception influences behaviour is through attribution – the process of developing explanations or assigning perceived causes for events. Attribution theory assists in understanding how people perceive the causes of events, determine responsibility for outcomes and evaluate the personal qualities of the persons involved (Schermerhorn, Osborn, Hunt and Uhl-Bien, 2012). The belief that there are causes for everything that happens is an inherent part of observing the world, because it makes the world more meaningful. A person's perceptions of people differ from that person's perceptions of inanimate (lifeless) objects, because one makes inferences about the actions of people (Robbins, 2005). The result is that when one observes people, one attempts to develop explanations, one wants to establish an "attribute" for why people behave in certain ways.

Making *attributions* in one's social life serves important functions. Attributions are inferences that people draw about the causes of events, others' behaviour and their own behaviour. According to Fiske and Taylor (in Goldstein, 2007), one makes attributions because of a need to predict the future and exert some control over events. In deciding why people behave as they do (the process of attributing motives), one can decide that their behaviour is due to the demands or requirements of the situation they are in (*situational attribution*), or one can decide that they behaved as they did because of their personality, beliefs or other internal factors (*dispositional attribution*).

People do not attempt to explain everything that happens around them. Generally people are more likely to make attributions when unusual events catch their attention, when events have personal consequences for them, when others behave in unexpected ways, or if they are suspicious about the motives underlying people's behaviour. A person seeking to understand why another person did something may attribute one or more causes to that behaviour. A three-stage process underlies an attribution:

- Firstly, the person has to perceive or observe the behaviour.
- Secondly, the person has to believe that the behaviour was intentionally performed.
- Thirdly, the person has to determine if he/she believes that the other person was forced to perform the behaviour (in which case the cause is attributed to the situation) or not (in which case the cause is attributed to the other person) (Weiten, 2008).

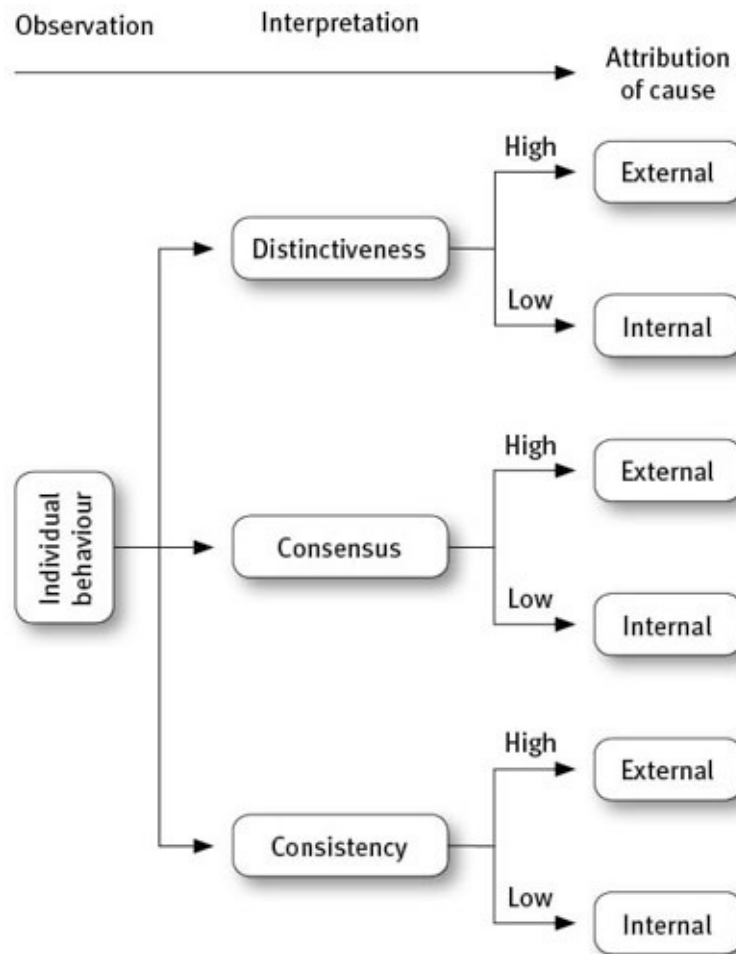
Attribution theorists specify the kinds of attributions people make, the information they use to do this, and the errors and biases that tend to influence these processes.

#### **6.5.2.1 Types of attribution**

According to Heider (in Goldstein, 2007), one generally offers two types of explanation about why things happened: one can make either an internal or an external attribution. Internal attributions assign causality to factors within the person. An example of internal attribution is a sinner who confesses, “I’m guilty. Grant me forgiveness.” In contrast, external attributions assign causality to an outside agent or force in the environment. An employee who explains his/her substandard performance in terms of the difficulty of the apparatus or an instructor’s incompetence provides an example of an external attribution.

Determining whether the cause of a behaviour is external or internal depends largely on three factors: consensus, distinctiveness and consistency (Kelley, in Goldstein, 2007). Kelley suggested that perceivers, in their efforts to establish causal attributions, examine three different kinds of information by asking three types of questions about a specific behaviour:

- The *distinctiveness question* is: “How does the person’s behaviour vary across situations or with other people?”
- The *consensus question* is: “How does the person’s behaviour compare with that of other people in the same situation?”
- The *consistency question* is: “How does the person behave at different times and in different situations?”



**Figure 6.8** Attribution Theory.  
Source: Adapted from Robbins (2005)

Some psychologists have investigated additional dimensions of attributional thinking to the internal-external dimension. Weiner (in Weiten, et al., 2012) concluded that people often focus on the stability of the causes underlying behaviour when explaining the reasons for success and failure. Weiner proposes that an unstable-stable dimension in attribution cuts across the internal-external dimension, and creates four types of attribution for success and failure, as is evident in Table 6.2. Weiten *et al.* (2012) use the following example to apply Weiner's model in explaining the reasons for success and failure. If a person contemplates why he/she did not get a job that they wanted, the person may attribute the setback to internal attributes that are stable (too much excellent competition), or unstable (bad luck). If the person got the job, some explanations for his/her success would fall into the same four categories:

- internal-stable (excellent ability)
- internal-unstable (substantial effort to assemble a superb CV)
- external-stable (lack of strong competition)
- external-unstable (good luck).

**Table 6.2** Stability dimension

Unstable cause (temporary)	Stable cause (permanent)
Effort	Ability
Mood	Intelligence
Fatigue	
Luck	Task difficulty
Chance	
Opportunity	
<b>Internal-external dimension</b>	
Internal cause (effort mood and fatigue)	
External cause (luck, chance and opportunity)	

Source: Jones and Davis, 1965; Kelley, 1967; Weiner, 1974, 2006. In: Weiten, Dunn and Hammer, *Psychology applied to modern life: Adjustment in the 21st Century*, 10th ed. Wadsworth, 2012, Figure 6.12, p. 191

Perception and attribution are important concepts in social learning theory, which describes how learning takes place through the reciprocal interactions amongst people, behaviour and environments. According to Albert Bandura, people acquire behaviour by observing and imitating others through modelling or vicarious learning. In a work situation, models may be a senior manager, mentor or co-worker who demonstrates desired behaviours. These people may serve as important models in acquiring some of the attitudes underlying attribution (Schermerhorn et al., 2012).

### 6.5.2.2 Attributional errors and biases

Social psychologists have found that attributional errors and biases sometimes lead to inaccurate judgements of whether the cause of a behaviour is internal or external. The box features some attributional errors and biases.

## Some attributional errors and biases

### The fundamental attribution error

The *fundamental attribution error*, sometimes referred to as *correspondence bias* or the *overattribution effect*, is the tendency in people to overestimate internal factors, such as a person's traits or attitudes, and to underestimate the situational factors in explaining behaviour (Ross, in Goldstein, 2005). For example, the incorrect attribution or misattribution of another person's friendliness as sexual interest can lead to behaviour that is regarded as sexual harassment.

The fundamental attribution error refers to a tendency to overattribute the behaviour of others to internal factors, such as personality traits. A related form of cognitive bias is called the *ultimate attribution error*. When members of a social or ethnic *out-group* (people we see as "different") do something positive, we attribute their behaviour to luck or some other external cause. But we attribute their negative behaviour to an internal cause such as dishonesty.

At the same time, when members of an in-group (people we see as being like ourselves) do good deeds, we attribute the behaviour to integrity or other internal factors. If they do something bad, we attribute it to some external cause. Because of the ultimate attribution error, members of the out-group receive little credit for their positive actions, and members of the in-group get little blame for their negative actions. Biases such as the ultimate attribution error help maintain people's negative views of out-groups and positive views of their own in-group.

### The actor-observer effect

Research has shown that one's bias shifts, depending on whether one is observing the behaviour of others or explaining one's own. The *actor-observer effect* is the tendency for the actor (the person performing a behaviour) to attribute the behaviour to the situation, and for the observer (the person watching the actor behave) to attribute the same behaviour to the actor's disposition (Gilbert and Malone, 1995; Nisbett, in Goldstein, 2005).

This means that bias in favour of internal causes (the fundamental attribution error) is stronger when people explain another's behaviour rather than their own. For example, if John trips whilst walking down an office corridor, he is likely to look for some external cause such as a slippery floor, whilst his colleagues are more likely to conclude that he is clumsy.

The actor-observer bias is true for most people, but for those who are depressed, have low self-esteem or view themselves negatively the bias is typically opposite (Gilbert and Malone, 1995; Hewstone, Mark and Willis, 2002).

### **Blaming the victim**

A third type of attributional bias occurs when people try to explain unfortunate events that happen to others, such as being sexually harassed or fired from a job. Circumstances such as these intensify the tendency to look for internal causes, an effect called *blaming the victim*. An example of a blaming-the-victim reaction to a report of sexual harassment is that: "It was the secretary's fault because she was dressed provocatively." If a person is dismissed, the reaction might be: "He had it coming."

One possible explanation for blaming the victim is that it protects people from the notion that bad things could just as easily happen to them (Thornton, in Goldstein, 2005). Blaming the victim also allows people to maintain their belief in the just-world hypothesis – the idea that life is basically fair, therefore good things happen to good people and bad things happen to bad people. By blaming victims people allow themselves to think that because they do not share the victim's attributes, they will escape similar misfortunes (Lerner and Miller, in Goldstein, 2005).

### **The self-serving and group-serving bias**

This tendency applies to attributions that one makes about oneself. The self-serving bias is the tendency to distort attributions about one's own behaviour to make oneself look good. In terms of the perception of success and failure, the concept of "self-serving attribution", (Zuckerman, 1979, in Inamori et al., 2011) indicates that people generally associate their success with internal factors and tend to blame their failures on external factors. The group-serving

bias is the same as the self-serving bias except that it takes place between groups instead of individuals. Group members make dispositional attributions for their group's successes and situational attributions for their group's failures, and *vice versa* for outside groups. One possible reason why people slant their attributions to favour themselves is to protect their self-esteem by seeing themselves in a positive light. Another reason is that self-serving biases allow people to present themselves favourably to others.

All the attribution errors discussed in the box function in accordance with the discounting and augmentation rules. The *discounting rule* relates to the tendency to disregard dispositional factors when behaviour is what is expected in the situation. The *augmentation rule* refers to the tendency to highlight dispositional factors when behaviour is the opposite of what is anticipated in a situation.

### 6.5.3 Perception in prejudice and discrimination

Prejudice and discrimination are two closely related concepts and have become nearly interchangeable in popular use. Social scientists, however, prefer to define their terms precisely. *Prejudice* involves negative perceptions which influence attitudes held towards members of a group (Weiten, 2008). Prejudice is a state of mind, feeling or behaviour that involves some scorn of others based on the group they belong to (Brown, 2010). Prejudice may target people of a particular social class, gender, sexual orientation, age, political orientation, race or ethnicity (Samovar, Porter, McDaniel and Roy, 2013). Prejudice is an attitude that is learned and serves a number of functions for the people who hold them, such as providing feelings of superiority and power. Prejudice further is a rigid and irrational generalisation about a category of people – they tend to be inflexible attitudes supported by little or no direct evidence.

Like other attitudes, prejudice includes three components:

- beliefs (for example, that South Africans are boorish)
- emotions (for example, hatred towards men)
- behavioural dispositions (for example, not wanting to appoint a woman).

Beliefs linked to prejudice have certain characteristics. Firstly, they are directed at a social group and its members. Often those groups are based on characteristics such as race, ethnicity, gender and age. Secondly, prejudices involve an evaluative dimension – they deal with feelings such as what is right

or wrong, good or bad, moral and immoral. Lastly, they possess centrality, which refers to “the extent to which a belief is important to an individual’s attitudes towards others”. The less intense the belief is to the person, the better the chances of changing the prejudice are (Samovar et al., 2013).

Racial prejudice receives the most publicity, but prejudice is not limited to ethnic groups. Women, homosexuals, the aged, the handicapped and the mentally ill are also targets of widespread prejudice. When changes take place in society, new prejudices may develop. For example, in South Africa rumours circulate about white men being increasingly uncertain about obtaining jobs in certain sectors. Thus, many people hold prejudicial attitudes towards one group or another, and many have been victims of prejudice.

Prejudice may lead to *discrimination*, which involves behaving differently, usually unfairly, towards the members of a group. Prejudice and discrimination tend to go hand in hand, but underlying attitudes and behaviour do not necessarily correspond (Weiten, 2008). The behavioural component of prejudice consists of tendencies to act in negative ways towards members of another group. Often these behavioural tendencies cannot be acted on directly because of social pressure, fear of retaliation or even legal constraints. When such constraints are absent, prejudice may be directly expressed and this behaviour is termed *discrimination*.

Bell (2011) points out that sexual discrimination and harassment, sexual segregation, wage inequity and the glass ceiling are common problems that women around the world face. Debates about men, masculinity and male inequalities, however, also currently feature in the academic world and popular press. It is believed that marketing has a huge impact on what it means to be a man in modern society (Bettany, Dobscha, O’Malley and Prothero, 2010).

Discrimination comes in various forms. Sometimes it is obvious. For example, certain groups may be given certain jobs. In other instances it can be much more subtle and disguised, especially when social norms and laws prohibit prejudice and discrimination. Examples of more subtle discrimination are a reluctance to assist members of other groups, avoidance of contact with members of other groups and tokenism – taking some trivial positive action and using this as sufficient justification for not engaging in more meaningful behaviour.

Finally, a person’s cultural background directly affects how he/she behaves at work. This, in turn, can affect the perception that others develop of the particular person. Cultural values appear to encourage different types of attributional error.

In individualistic cultures, where independence is valued, it is often assumed that people are responsible for their actions. In collectivist cultures, conformity and obedience to group norms are important, and it is often believed that a person's behaviour results from adherence to group expectations. Some experts suggest that different styles of thinking cause cultural differences in attributional styles. They suggest that the Western way of thinking is analytical (attention is focused on an object and causality is attributed to it), whilst the east Asian mentality is holistic (attention is focused on the field surrounding an object, and causality rests in the relationship between the object and its field). Researchers indeed found that Americans (traditionally characterised as being Western in orientation) explain others' behaviour in terms of internal attributes more often than Hindus, Japanese or Koreans do.

Cross-cultural differences in attribution and other aspects of social cognition may explain why people in different cultures and even different subcultures sometimes may find it difficult to understand each other (Bernstein, Penner, Clarke-Stewart and Roy, 2012). Our cultural backgrounds exert considerable influence over our behaviour (Weiten, 2011). As Markus and Hamedani (in Weiten, 2011, p.23) state:

“The option of being asocial or acultural – that is, living as a neutral being who is not bound to particular practices and socioculturally structured ways of behaving – is not available. People eat, sleep, work and relate to one another in culture-specific ways.”

#### **6.5.3.1 The development of prejudice**

There are various explanations for the development of prejudice. In explaining why people hold prejudices or display discriminatory behaviour, organisational research often relies on traditional psychological perspectives. Some examples include work by Adorno and his co-workers on the link between certain personality traits (authoritarian personalities) and prejudice, and Allport's approach emphasising cognitive factors, categorisation and erroneous generalisations. Other psychological theories that have become popular in research on workplace diversity are social identity or social categorisation theory. It is argued that people categorise themselves and others as belonging to particular social categories, based on relevant characteristics. People often value their own group positively when compared to other groups, which leads to a tendency to favour in-group members more than out-group members.

Another important perspective is the similarity-attraction paradigm, which is

based on the idea of *homophily* – people’s tendency to interact with people they perceive to be similar to themselves. Kanter’s theory of tokenism is also an influential perspective, particularly in gender research. It proposes that people who form the minority in groups suffer negative consequences, such as performance pressures because of their high visibility, isolation and exclusion based on an overemphasis of their differences and pressures to conform to the norms and the stereotypes of the members who form the majority of the group (Bechtoldt, 2011). The above-mentioned approaches, on their own or in combination, can explain prejudice in certain instances.

### **Intergroup conflict**

This type of conflict involves hostility that develops between the members of two groups if they compete for something. Some conflict, called *functional conflict*, is considered positive, because it enhances performance and identifies weaknesses. However, *dysfunctional conflict* is a confrontation or interaction between groups that harms the organisation or hinders the attainment of goals or objectives.

### **The authoritarian personality**

The *authoritarian personality* refers to people who accept authority figures unquestioningly, if these figures are from their own group. They believe strongly in obedience and respect for authority, and also in traditional values (thinking that those who disobey an authority figure should be punished severely). Furthermore, these people are obsessed with power and toughness. The authoritarian type of personality is inclined to believe in right or wrong, and that there is only one right. They think rigidly and in absolute terms. Experts believe authoritarian personalities show these traits because they have been exposed to very harsh child-rearing practices, which result in aggression towards their parents that cannot be expressed. When they reach adulthood, this aggression is displaced by exerting authority over members of out-groups and their subordinates.

### **The sociocultural learning approach**

According to the *sociocultural learning approach*, prejudice is learned through socialisation. Children can therefore learn prejudice from their parents, friends, the mass media and school. Parents, through education, and a system of punishment and rewards, play an important role in children’s acquisition of prejudice. Prejudice can grow from being punished for, or prohibited from, playing with children from other groups. More subtle ways in which children

can acquire prejudice are through observing and imitating the behaviour of parents. In this way children may also make derogatory remarks about another group, without really understanding their meaning. These early attitudes are often later reinforced by friends of a similar background with similar attitudes.

### **Cognitive processes**

We constantly perceive and identify things with labels (Seaward, 2011). When people are introduced, they often label others as belonging to their own group or to another recognisable group. Two further processes, namely assimilation and contrast, are associated with this social categorisation. Assimilation results in one seeing people in one's own group as being more similar than they really are. One also tends to see people in other groups as being more different than they really are (contrast). When one processes information about other groups, these processes distort one's perceptions and one does not get the opportunity to reconsider any existing stereotypes and feelings.

Investigating the impact of cognitive processes such as the above may be particularly important in today's diverse workforce – most organisations have become diverse in terms of the demographic composition of their members, for instance in terms of attributes such as gender, age, race, and functional background. Relational demography research, for instance, have examined how demographic variation influences organisationally relevant outcomes such as employees' identification with their workgroup, organisational commitment, workgroup involvement, job performance, citizenship behaviour, withdrawal, perceived discrimination, as well as affect at work (Chattopadhyay, George and Ng, 2011).

Despite a huge number of empirical studies on relational demography, the effects of demographic dissimilarity on individuals and the associated social psychological process are not fully understood yet (Chattopadhyay, George and Ng, 2011). Social identity theory (Tajfel and Turner, 1979, 1986) and self-categorisation theory (Turner, 1975; Turner, Hogg, Oakes, Reicher and Wetherell, 1987), which are collectively known as the social identity perspective, has been used most frequently by relational demography researchers to understand this process. It is proposed that people try to enhance their social identity, as well as reduce their uncertainty, through group membership. Researchers, however, have mainly focused on the self-enhancement motive, and mostly ignored the uncertainty reduction motive. Chattopadhyay, George and Ng (2011) propose that uncertainty reduction is an essential theoretical concept in understanding relational demography effects and should be included

as key human motivation in relational demography models.

### **6.5.3.2 The influence of perception in the formation of prejudicial and discriminatory attitudes**

People's perceptions, which are manifested in their attitudes (subjective or collective), have a direct influence on the activities associated with prejudice, stereotypes and discrimination. The xenophobic attacks that sometimes occur in South Africa are an example of how the categorisation of people can be followed by discrimination and violence.

### **6.5.3.3 Reducing prejudice and discrimination**

Three ways of reducing prejudice and discrimination that are frequently suggested are education, intergroup contact and legislation. See also the Ethical Reader box below.

#### **ETHICAL READER: Three Cs for the optimal programme of prejudice reduction**

Johnson and Roger (2000) suggest that the optimal prejudice-reduction programme combines these three Cs:

- Establish a cooperative community in which cooperative learning strategies involving diverse participants are utilised both formally and informally.
- Resolve conflicts constructively. If constructively managed, conflicts can result in positive outcomes such as increased energy, curiosity and motivation; achievement, retention, insight, creativity, problem-solving and synthesis; healthy cognitive and social development; clarity of own and others' identity, commitments and values; and positive relationships.
- Instil civil values. The values taught by cooperative learning strategies include a recognition that people who are different from oneself are to be sought out and utilised, because they can make unique contributions to the joint effort.

#### **Education**

The main source of prejudice is parental education. Prejudices learned at home,

however, are further reinforced by the mass media and society in general.

Attempts can be made to reduce the degree of stereotyping that occurs in books, television programmes and films. But approaches that have attempted to teach people about other groups, in the hope that more information will lead to greater understanding and acceptance, have been notably unsuccessful. This is probably because such campaigns are directed at the cognitive component of prejudice. They largely ignore the affective (emotional) component, which is probably more important to change.

In an organisational setting formal training can be used to reduce stereotypes. If people are trained to negate stereotypes, it may result in reduced activation of stereotypes. Perspective taking can also help reduce stereotyping and some of its negative consequences. Group members who see themselves as part of an organisation working for the same employer, pursuing the organisation's vision and mission and competing against others in the industry, further will be more likely to perceive their diverse group as an in-group working towards the same goal (Bell, 2011). An awareness of the processes involved in stereotyping is an important step in reducing them. It has been suggested that we should question ourselves and our beliefs, attitudes and behaviour toward people who differ from us.

### **Intergroup contact**

Intergroup contact theory maintains that the most effective way to reduce prejudice and discrimination is through contact between groups. The validity of the *contact hypothesis* and its applicability across a wide variety of groups and settings have been confirmed in numerous types of empirical studies over the past two decades (Dhont, Roets and Van Hiel, 2011). Frequent positive contact between members of different groups is therefore considered one of the most powerful strategies to promote positive intergroup attitudes and reduce intergroup bias.

However, if actual contact is impractical or unlikely, a technique known as imagined intergroup contact (Crisp and Turner, 2009, in Husnu and Crisp, 2010) can be applied. Imagined intergroup contact is "the mental simulation of a social interaction with a member or members of an out-group category" (Crisp and Turner, 2009, p.234, in Husnu and Crisp, 2010). Irrespective of whether people have experienced direct contact with the out-group, imagining intergroup contact can encourage more positive attitudes toward out-group members. Imagined intergroup contact is not only simple and easy to administer, it may have distinct benefits for intergroup relationships, particularly in settings where the chances of

actual contact are low. For instance, in three studies, Turner, Crisp and Lambert, 2007 (in Husnu and Crisp, 2010) found that simply imagining contact with an out-group member (for example, an elderly man or a homosexual man) led to more positive evaluations of that out-group.

Imagined contact functions according to the same mechanisms as real contact. When people imagine intergroup contact, they should imagine taking part in processes that correspond to those involved in actual intergroup contact. This may include thinking about what they would learn about the out-group member, how they would feel during the interaction, and how this would influence their perceptions of both the particular out-group member and out-group members in general. This type of imagined contact tends to result in more positive evaluations of the out-group, similar to the effects of face-to-face contact. It is, however, not sufficient to just think about the out-group as the mental simulation of an encounter is necessary to generate the positive effects.

All in all, the positive outcomes of most types of intergroup contact have now been established in a series of meta-analyses. Numerous studies throughout the world demonstrate that many types of intergroup contact – racial, ethnic, homosexuals and heterosexuals, mentally and physically impaired and unimpaired – typically leads to various positive outcomes. These types of contact reduce explicit and implicit prejudice, they lead to less interactional anxiety and less individual threat and collective threat, as well as more empathy, perspective taking, out-group knowledge, intergroup trust and forgiveness, and perceptions of out-group variability. All these types of positive effects are important in reducing intergroup conflict (Pettigrew and Tropp, 2011).

However, Allport (1954, in Pettigrew and Tropp, 2011) argued that the effect of situational variables such as intergroup contact on prejudice depends on a person's character structure. According to Allport (1954, in Pettigrew and Tropp, 2011), contact with members of an out-group can successfully reduce prejudice toward this out-group, at least when contact occurs under the conditions of equal status, intergroup cooperation, the pursuit of common goals, and the presence of institutional support. Allport suggested that prejudiced-prone people, amongst others, tend to prefer order and predictability, they dislike ambiguity, and tend to be narrow-minded. Prejudice should therefore also be understood as an expression of how a person thinks about the social world in terms of motivated cognition.

According to Amir (in Tyson, 1987), a number of conditions have to be met for intergroup contact to be successful in reducing prejudice:

- Firstly, the people involved should be of equal status.
- Secondly, the contact should not be formal or superficial in nature, but rather close and intimate.
- Thirdly, the situation must be conducive to mutual cooperation and interdependence, and this cooperation should preferably have a positive outcome.

Johnson and Roger (2000) state that success in reducing prejudice and discrimination increases when the following conditions are met:

- Majority and minority individuals interact.
- Personal relationships are formed.
- People have open and truthful discussions with each other.
- Both groups have positive experiences and develop a personal commitment to reducing prejudice and discrimination.

The authors further suggest that for the above conditions to occur there needs to be contact between diverse individuals, both extensively and intensively. Schools are some of the few locations wherein learning can be incorporated into prejudice-reduction strategies both within and outside the classroom.



**Figure 6.9** Positive personal experiences reduce prejudice.

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Pettigrew (2011) points out that, based on the proven success of intergroup

contact, it can be expected that interracial schools will have a generally positive impact on reducing prejudice in general. Such expectations may, however, completely ignore some other psychological processes that are involved. Institutional processes are complex, and always involve multiple psychological processes. This fact is often overlooked in policy recommendations. The various, even conflicting, psychological phenomena involved need to be considered, as well as how they interact in a particular institutional contexts, as is the case in intergroup schools. Macrolevel institutions are complex social systems that inevitably involve numerous and often conflicting individual psychological processes. All in all, psychologists face many obstacles in developing effective and self-sustaining micro-interventions for macrolevel changes (Pettigrew, 2011).

### **Legislation**

Some experts believe that the increases in higher education and democratisation globally produce new types of nations, in which cultural diversity is regarded as a source of national strength and wherein societies become more inclusive. Minority groups, immigrants, women and others now have rights or are demanding it, and these demands are regarded as acceptable in a more modern view of human rights. New taboos and stigmas against a variety of groups, however, are developing. New forms of intolerance appear to develop in liberal, democratic societies, for instance, against obese people. Kamens (2012) suggests that world culture appears to be a double-edged sword in terms of tolerance: it promotes the acceptance of some forms of diversity but legitimates the rejection of many “others”. Based on his idea that world culture cannot have a uniform effect on tolerance for all groups, he identifies six main patterns of tolerances/intolerances, based on the World Values Surveys, including:

- changes in racial and ethnic intolerance
- shifts in religious tolerance toward Muslims and Jews
- shifts in patterns of intolerance for homosexuals and people with HIV/Aids
- changes in tolerance for “lifestyle” deviants, including alcoholics, the mentally ill, or those with criminal records
- change in tolerance for drug addicts
- changes in the tolerance for right-and left-wing political radicals.

Finally, Bell (2011) advises that diversity and inclusion should be encouraged in organisations globally, particularly because the world population is becoming increasingly diverse. The current and future workforce in many nations is

changing greatly because of changes in birth and mortality rates, immigration, age distributions, advances in health care, external pressures and competition. In countries such as Spain, Italy, Germany, France, Japan and South Africa, declines in the population of working adults are projected during the period 2010 to 2050. In countries such as these, active, full participation in the workforce should therefore particularly be encouraged.

Within each region, however, there are various unique issues and concerns which are based on its historical, cultural, religious and other differences, which may impact on the extent to which diversity is addressed and valued. Governments in many countries have implemented legislation prohibiting discrimination against disadvantaged groups and encouraging their employment. The insufficiency of legislation in addressing long-held beliefs and practices, however, is evident in the trend that various instances of discrimination, segregation and exclusion still can be found. However, at a basic level, laws indicate the need to establish equality for all people.

## 6.6 PERCEPTION AND TECHNOLOGY

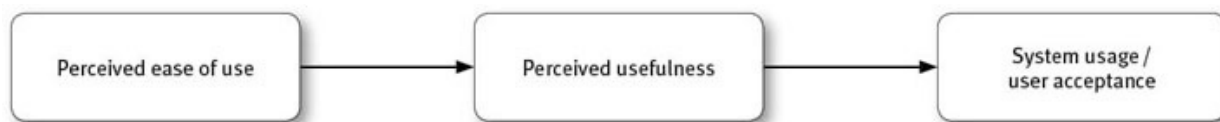
Perception of technology is another important interpretation and application (also see box on pain diversion) to indicate how sensory adaptation can be used to improve the interface between people and technology, of which video games and military training are good examples (Kowalski and Westen, 2011).

People need more than basic reading and mathematics skills to function effectively in the current work environment. Technology is used in many organisational processes and interactions, and this changes many aspects of organisational behaviour. Goldstone, Landy and Son (2010), however, point out how slowly human biology changes compared to the fast pace of progress in science and technology. Although our brains have not changed considerably, we usually use it to understand advanced modern symbols, theories and tools. Humans fortunately are very adept at adapting to the tasks that are required of them. People's perception, however, also impacts on their acceptance of technology in the workplace. In many new technologies, therefore, a process of *augmented cognition* is used to design technology and tasks in such a way as to adapt to the levels of motivation and competency of employees (Kowalski and Westen, 2011). An example is to decrease or increase the difficulty level of a video game or the electronics in a fighter plane designed in such a way as to detect the level of alertness in pilots to avoid possible mistakes and accidents.

Drucker (2010) points out that technology is not about tools, it is about how people work. One of the most well-known models investigating resistance to new technologies in the workplace, the *technology acceptance model* (TAM), was developed by Davis (1989, in Edmunds, Thorpe and Conole, 2012).

### 6.6.1 The Technology Acceptance Model

The Technology Acceptance Model (TAM) is based on the idea that a person's actions can be predicted from a number of variables, which can be grouped under two factors, namely perceived ease of use and perceived usefulness. *Perceived ease of use* is defined as the degree to which a person believes that a particular system will be easy to use, and would not require a lot of effort, whilst *perceived usefulness* refers to the degree to which an individual believes that a particular system will enhance his/her job performance. Research on the TAM suggests a causal pattern between the two factors, where perceived ease of use predicts perceived usefulness, which in turn predicts use. Usefulness further is more strongly linked to usage than ease of use is linked to usage of technology by a person. This suggests that users will put up with some difficulty in using technology, if the system provides some critical function.



**Figure 6.10** Model suggesting causal direction of influence on technology acceptance (Davis, 1989, in Edmunds, Thorpe and Conole, 2012, p.72).

The TAM has proved to be useful in understanding how people accept technology and continue in its use. However, various factors impact on the interaction between technology and its acceptance for use. The two constructs, namely ease of use and usefulness that are considered in the TAM, may not denote all the components necessary to predict users' acceptance of technology.

There have been a number of revisions to the TAM, and as a result, a number of alternative models of user acceptance of technology have been developed. However, the simplicity of the original TAM is appealing, which may explain why it has been included in more comprehensive scales in a number of domains such as consumer research, online learning and e-collaboration. Its core concepts, ease of use and functionality have been included in a number of

revised models, suggesting that these two factors are particularly valid in understanding people's use of technology.

Edmunds, Thorpe and Conole (2012) investigated students' perceptions of ICT and how these perceptions impact within and across students' life domains of study, work and leisure. They found that students perceive ICT as both more useful and easier to use in the work context, compared to course study and leisure activity. This study suggests the relevance of the work context in particular as influencing both attitudes towards and adopting ICT more generally.

Edmunds, Thorpe and Conole (2012) found that students experience ICT in the workplace as both useful and easy to use, and that these dimensions were also evident in their attitudes towards ICT for their course study. The features of ICT that students rated highly for both their study and work contexts included:

- ICT generally increases my performance (at work or for learning).
- ICT allows me to produce more in the time I have (at work or for study).
- Work/learning is made easier by using ICT.
- ICT makes me more effective at work/a more effective learner.
- I can learn and cover material more quickly through the use of ICT/cover material more quickly through the use of ICT at work.

Students' orientation towards ICT should therefore not only be investigated in relation to their needs for social connection and leisure use of technologies, but in relation to the way in which ICT is used in relevant areas of employment. Students may already be involved in some areas of employment, but may also be motivated positively towards technologies that are relevant to their future employment intentions.

Further research to investigate how ICT connects across people's different life domains and how its use is influenced by cross-context application is necessary. Different types of technology are becoming increasingly integrated in our daily lives, and an understanding of users' perceptions of ICT should assist in increasing the performance and acceptance of newly developing technologies.

The way people choose to use technology, however, varies as much as the outcomes of their usage (Gaskin and Lyytinen, 2012). Appropriation (the way that people choose or learn to use technology) has mainly been investigated at a group or organisational level. Technology usage, however, occurs at an individual level and may warrant special attention.

### **6.6.2 Desirable consequences of the appropriation of**

## technology

Gaskin and Lyytinen (2012) argue that appropriation and psychological ownership are theoretically equivalent, and that people should experience the desirable consequences of psychological ownership if they appropriate technology. Gaskin and Lyytinen (2012) consequently propose that if a person appropriates a technology, it will lead to increases in:

- personal and object-related satisfaction
- control
- social power and status
- self-identity
- security
- extra-role behavior
- job satisfaction
- organisational commitment
- organisational self-esteem
- organisational citizenship
- efficacy
- competence.

People who choose or learn to use technology will enjoy a sense of *personal* and *object-related satisfaction*. Due to their exploration and use of the features of a particular type of technology, their familiarity and competence with this technology should increase. People further tend to make judgements about their interactions with technology, just as in human-to-human interactions. Using and learning about technology should enhance a person's ability to "figure things out".

People who engage in the process of using and learning about technology should enjoy a sense of *control*. Their sense of familiarity and experience with the technology should enable them to better predict the results of their actions in terms of technology if they know the features.

People who engage in appropriation should enjoy a sense of increased *social power and status*. It would increase their competence, and people may look up to them because they are familiar with technology. This may lead to a sense of increased social power and status, and their enhanced ability may result in them being promoted.

People who use and learn about technology should enjoy a sense of *self-identity*. If a person becomes competent with a technology, it tends to become

part of the person's identity. A competent user may include this fact on his/her resumé because it identifies a part of him/her.

People who engage in appropriation should enjoy a sense of *security*. A person may feel more secure in his/her work if he/she has become competent with the features of the technology he/she uses to accomplish his/her work. Appropriation leads to familiarisation and familiarisation with an object leads to comfort and perceptions of security.

People who use and learn about technology will probably also engage in *extra-role behaviour*. Extra-role behaviour refers to using one's discretionary time productively for the benefit of the organisation. When a person is both competent with a technology and enjoys a sense of satisfaction when using it, the person will probably use it after hours and may engage in productive work for others even during their "off time".

People who use and learn about technology should enjoy a sense of *job satisfaction*. Those who have become competent through appropriation tend to feel satisfied when they use the technology, and therefore, may be more satisfied with work. They will also feel more secure and in control as pointed out earlier, which may lead to increased job satisfaction.

People who engage in appropriation may exhibit a greater sense of *organisational commitment*. If employees are engaging in extra-role behaviour and are enjoying a sense of job satisfaction, they may experience a higher level of commitment to their organisation than those who have not benefited from efficiently using technology.

*Organisational self-esteem* refers to a person's confidence in an organisation's performance ability. If a person becomes more confident in his/her own abilities in using technology, the person may extrapolate that confidence to the organisation. If a person is confident about his/her performance, he/she may therefore be more optimistic about the company as a whole.

*Organisational citizenship* refers to a person's sense of individual contribution to the organisation. As a person's abilities increase through the use of and learning about technology, the person should also feel better about his/her ability to contribute and perform.

People who engage in appropriation should also enjoy a sense of *efficacy*. When a person's familiarity and abilities in the use of technology increases, the person will also feel more effective in using technology because he/she will be more aware of, and familiar with capabilities of technology. The person should

therefore be in a better position to effectively execute tasks with technology than someone who has not adopted technology to the same extent.

Lastly, people who use and learn about technology should enjoy a sense of *competency*. As people choose which features to use and how to use them, they become more familiar with the capabilities of technology and more confident in their ability to use those features. By doing so, they become more competent users.

## 6.7 SUMMARY AND CONCLUSION

Sensation and perception allow people to perceive reality in a unified and unique way. Perceptual phenomena explain possible variations in people's everyday experiences, as well as the many possibilities for inaccurate perceptions in all areas of life. Although experience of the physical realities might be more or less accurate, illusions, for example, clearly illustrate that in some instances no one-on-one correspondence exists between sensory input and the perceived experience of the world. This is also true for social perception and person perception, where many personal attributes and external factors sometimes subjectively influence judgements of other people to create inaccurate perceptions, biased attitudes, and insensitive and even discriminating behaviours. Cultural variables influence our perceptual processes. The labels we assign to things or other people often outlive their usefulness because people are dynamic, not static.

The principles involved in perception are very powerful and affect every aspect of people's lives. In business they can be valuable in influencing employees' self-perceptions, their perceptions of social work rules, and their attitudes towards customers. Customers' behaviours and attitudes can be assessed through their perceptions of goods, services and organisations. People's perceptions also influence their acceptance of technology, which is an important aspect in the work environment. The technology acceptance model, which mainly considers the role of two constructs, namely ease of use and usefulness (functionality) in people's resistance to accepting technology in the workplace, appears useful to investigate this process. Most importantly, however, is the social scientists' and human-resources practitioners' use of perceptual psychology and practices, not only to facilitate positive social behaviours, but also to influence attitudes and prejudices amongst individuals, societies and work groups in diverse countries such as South Africa. This includes not only

testing and verifying existing assumptions, but also creating a theory and practice unique to a specific society.

## 6.8 ASSESSMENT ACTIVITIES

### Multiple-choice questions

1. The smallest unit or minimum amount of stimulation required for an organism to produce a sensory experience is called:
  - a) the threshold
  - b) the absolute threshold
  - c) the differential thresholds
  - d) sensory adaptation
  - e) the just-noticeable difference.
2. The moon illusion is best explained by the following:
  - a) perceptual closure
  - b) perceptual interpretation
  - c) the effect of depth cues
  - d) the absolute threshold
  - e) signal-detection theory.
3. The process by which the perception of a person is formulated on the basis of a single favourable impression is called:
  - a) the horns effect
  - b) the halo effect
  - c) selective attention
  - d) attribution
  - e) stereotyping.
4. Closure, similarity and continuation are categories of:
  - a) perceptual organisation
  - b) cognitive style
  - c) cognitive organisation
  - d) perceptual integration
  - e) perceptual selection.
5. As an industrial psychologist, you notice that Mrs Brink, a recent stroke victim, cannot consciously perceive the large book on the coffee table in front of her. Yet, when urged to identify the book, she correctly reads aloud the printed title on the book cover. Her response best illustrates the principle of:

- a) figure and ground
- b) blind sight
- c) just-noticeable difference
- d) sensory adaptation
- e) attribution error.

## Answers to multiple-choice questions

1 = a; 2 = c; 3 = b; 4 = a; 5 = b

## Issues for discussion and practice

1. Explain the difference between absolute and differential thresholds.
2. What would be the most successful technique that a marketer could use to prevent you from becoming used to an advertisement? How often would the advertisement have to be changed?
3. “We see and understand things not as they are, but as we are.” Explain how cultural differences impact on perception.
4. Explain how intergroup contact can reduce prejudice.
5. In a class or group discussion indicate how perception impacts on people’s acceptance of technology in the workplace.

## CASE STUDY

When two new employees are appointed, you hear the existing circle of employees saying the following:

- “I don’t think he will stay long. He will apply for a better position as soon as possible. You know how people ‘job hop’ these days.”
- “How can they appoint someone so young? These young people just chat to their friends on social media during office hours.”
- “She is well-groomed. But, you know what they say about blondes.”
- “He is from a good family – well-connected.”
- “He seems to be on medication, don’t you think?”
- “She is probably a ‘token’ appointment – she seems to have a slight limp.”
- “Another missed opportunity for one of our own people.”

Explain how selective attention, factors influencing perception,

various aspects of impression formation and prejudice are recognisable in these statements.

## **CHAPTER 7**

# **Cognition**

*Amanda Werner and Antoinette Theron*



## [Introduction](#)



## Forms of productive thinking



[Language](#)

7.4

## Memory

7.5

Intelligence



## Summary and conclusion



## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- define the concept of metacognition
- discuss concept formation and problem-solving
- discuss heuristics and cognitive control in decision-making
- give an overview of creativity in individuals and organisations
- discuss language as a cognitive process
- explain stages and types of memory
- indicate how memory can be promoted and why people forget
- discuss the role of culture in intelligence
- explain general intelligence and how it is calculated
- explain structural and dynamic approaches to intelligence.

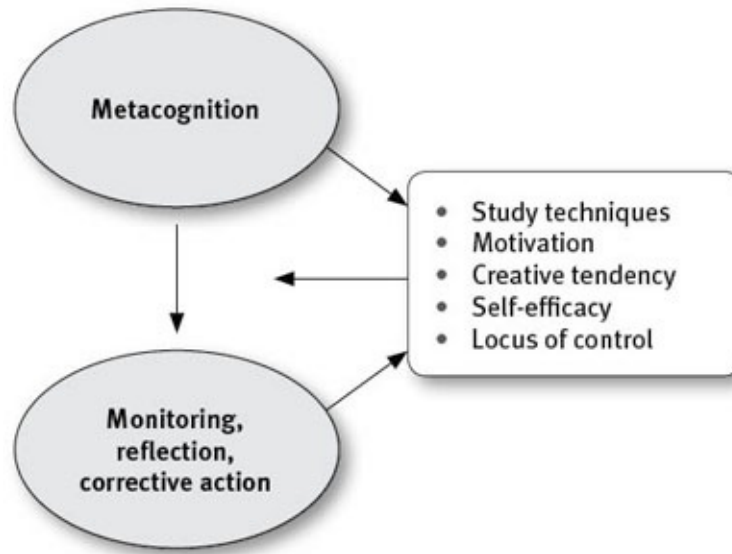
## 7.1 INTRODUCTION

In Chapter 1, the reader was introduced to cognitive psychology, the school of thought that emphasises factors that contribute to “knowing”, such as thinking, memory, learning, perception, creativity and intelligence. Cognitive psychology uses the computer as an *analogy* to explain how people constantly collect, process, store and recall information to make decisions. However, it also acknowledges that the human mind is more than the computer – people are unique and each person has unique cognitive abilities. These differences become important in employment, selection and psychometrics, when the fit between the cognitive requirements of a job and the cognitive ability of an individual is probed. The ability to think, solve problems and take initiative are important characteristics of the modern day employee.

People can also think of thinking. This involves metacognition. *Metacognition*, illustrated in Figure 7.1, is one’s capacity to control or monitor one’s own thoughts. A student can, for example:

- try to understand how a currently used study technique promotes understanding and retention
- determine whether he/she engages in creative thinking or *functional fixedness*
- consider how a tendency towards an external locus of control inhibits initiative

- reflect on how much progress is made with mastering new material.



**Figure 7.1** Metacognition.

The *aim* of studying cognition is to develop an understanding and appreciation of the broad capabilities of the mind to think productively, solve problems, make decisions, act creatively, use language and develop intelligence.

## 7.2 FORMS OF PRODUCTIVE THINKING

Thinking can involve an undirected flow of ideas, concepts or plans that are not necessarily productive, but can symbolically fulfil one's dreams or, the reverse, lead to impractical solutions to problems. Daydreaming and fantasising, for example, can be fulfilling, and if they are within reach of practical fulfilment, they have positive consequences. However, if they are devoid of reality, they may have negative consequences, perhaps reinforcing the feeling of being unfulfilled.

If thinking produces new relations and organisations between existing knowledge, it is *productive thinking* (Davey, 2007). Forms of productive thinking include concept formation, problem-solving, decision-making and creative thinking.

### 7.2.1 Concept formation

A person forms mental concepts by *abstracting* similar or general features of

objects, people or events and categorising them. A *concept* is therefore an abstract idea or a mental category by which similarities are grouped. For example, employees are a category of salaried workers, including secretaries, supervisors, managers and others who work for an organisation, whilst entrepreneurs can include a category of self-employed workers. A person, as a member of a group, develops a cognitive-evaluated representation of him-/herself (self-identity) according to the attributes of and membership in the group. This cognitive representation will change if the person over time realises that he/she has less in common with the group. Such concepts are not formed from a set of common features, but are built around a representative sample, or prototype (Reed, 2004). A *prototype* exhibits the typical features of a particular category. For example, the leader of a team normally typifies the type of behaviour that is most common in the group. The prototype is usually the concept member that has the most features in common with other concept members, and shares the fewest features with other concepts. It is the most representative example of the particular concept.

The prototype indicates what is typical about a specific category, whilst the *schema*, another mental structure, indicates what is essential about a specific category. A schema is more general than a prototype. It is a mental structure that can be used to organise information. Schemas are plans or procedures for classifying people, events or objects. A person may, for example, have a schema for deciding which colleagues would enjoy working on a project.

The formation of categories can be complicated by cultural differences. Concepts of what is traditionally correct, for example, vary. Cultural knowledge plays a part in such categorisation. Cultural groups who live in close contact with the natural environment, for example, have wide knowledge of plants and animals, which plays a part in concepts of natural healing or medicine. This can be contradictory to the laboratory scientist's concepts concerning health and medicine.

### **7.2.2 Problem-solving**

*Problem-solving* entails *finding effective solutions* to problems. Research has shown that the first and most difficult “problem” in problem-solving can be stating the problem. Sometimes an individual does not know where to begin to solve a problem because the problem is not clearly stated, which hinders the finding of a suitable solution. Once the problem has been clarified, the solution might follow more easily (Goldstein, 2005). *Rational problem-solving* involves

solving a problem in a systematic manner, by first clarifying and understanding the problem, setting objectives for solving the problem, identifying alternatives, analysing the alternatives, selecting the best alternatives, implementing them and then reflecting back on both the decision-making process and the outcome of decision. Practice your problem-solving skills by resolving the questions posed in the box *Money problems*.

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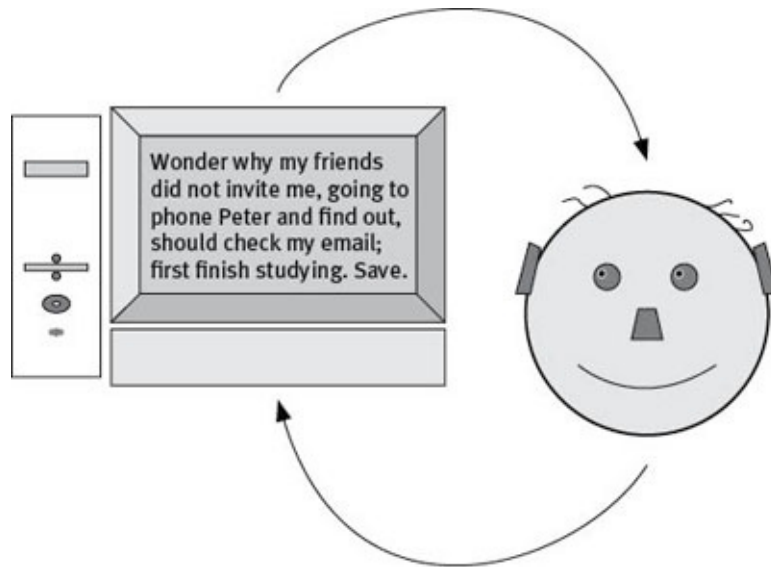
## Money problems

“Money problems” is probably the most commonly shared problem amongst people. Explore different ways in which people typically state a “money” problem, and from these statements, identify the most constructive statement. Identify practical steps that one could follow to solve a “money” problem in a logical and rational manner. In addition, give examples of how this problem can be approached using the problem strategies discussed below. How effective do you think each strategy will be for solving the problem?

### 7.2.2.1 Problem-solving strategies

There are various *strategies* that individuals frequently use to solve problems. Some of these strategies are more rational than others:

- *Trial-and-error strategies* are random, haphazard and relatively time-consuming searches for solutions. Problem-solvers use trial-and-error methods when the solutions are not readily apparent. When you want to hit a nail into a wall and you do not have a hammer available, you may try various other objects before finding one that will do the job.
- *Algorithms* are more systematic than trial-and-error strategies. An algorithm will produce a solution to a problem sooner or later. Following a fixed agenda (at a meeting) or a checklist (in an instructor’s manual) is one example of an algorithm – following the steps precisely produces a solution.
- *Heuristics* are previously used solutions which are now used as shortcut best-guess solutions to problems. Heuristics are based on knowledge and past experience of solving problems. People use heuristics when they feel under pressure to find a quick solution or simply because heuristics are available and have proven to be useful in the past. It saves time as well as cognitive effort. Heuristics, unlike algorithms, do not guarantee a solution, but they do make a solution very likely. Different types of heuristics are discussed in paragraph 7.2.3.
- In an *analogy* one uses a solution to an earlier problem (a heuristic) to help solve a new one. In analogies there are parallels between two different situations, and they might give meaning to processes that are invisible to one (Goldstein, 2005). Figure 7.2 illustrates an analogy that is used in cognitive psychology.



**Figure 7.2** An analogy: Comparing the human mind to a computer.

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By *changing the representation* one can clarify the essential aspects of a problem. A verbal presentation or discussion with a group may not provide a solution, whereas visual images in drawings or graphs may be more effective. In lean manufacturing, a production system aimed at eliminating waste, value stream mapping is used to visually illustrate the production process and flow of material and information. The aim is to see the whole process at a glance, identify bottlenecks and waste, and then to remove them.

#### 7.2.2.2 Barriers to problem-solving

Rigid and inflexible ways of thinking create barriers to problem-solving. Examples of barriers include:

- *Mental set* implies using a fixed way of thinking about or approaching a situation, without considering the uniqueness of the situation. One example is when a person believes that there is just one way to deal with a family member who is addicted to drugs, and expecting other people to use the same approach. Another mental set is the belief that certain jobs can only be performed by males or by females.
- *Functional fixedness* involves focusing on the main meaning of an object, not seeing that it can be used effectively in other ways. If cell phone manufacturers believed that cell phones could only be used for making calls, cell phones would not have been developed into media-musical devices or

small computers with Internet connectivity. Functional fixedness is a barrier to creative thinking.

### 7.2.3 Decision-making: heuristics and cognitive control

Decision-making requires making a choice between alternatives, with the likelihood of taking a risk in the face of uncertain events. To reduce this risk, people often make use of heuristics as they know that these are decisions that have previously given desirable results. Heuristics therefore prevent impulsive decision-making and the end result tends to be more rational. In this section, different types of heuristics, their limitations and the factors that reduce or enhance cognitive control are discussed.

#### 7.2.3.1 Heuristics

Three important heuristics can influence decision-making:

- The heuristic called *anchoring and adjustment* involves making an estimate: starting off by guessing a first approximation – an anchor – and then making adjustments to that on the basis of additional information. For example, as a manager one might at first rely on one's own experience to handle a conflict situation, but as one gains more information from colleagues, one may modify one's decisions.
- *Availability* is used when one estimates frequency or probability in terms of how easy it is to think of something. For example, if a person is asked which insurance company provides the best rates and services, the answer might reflect the company that most aggressively advertises on television. The person might subconsciously reason that if the company is so well-known, the probability is high that it is good. This assumption might be incorrect.
- *Representativeness* is based on how much one event resembles another event. When one uses the representativeness heuristic, one decides whether the event or situation one is judging matches the appropriate prototype.

The use of heuristics has its limitations. It can result in making the wrong decision and it also substitutes the search for creative and fresh alternatives. Typical errors which result from the use of heuristics include the following:

- *Over-reliance on the anchor* occurs when people typically rely too heavily on the anchor, and their adjustments are too small. After selling a car, a person realises the selling price, which was based on a neighbour's suggestion, was too low.

- *Overestimating the improbable* is a tendency to exaggerate the possibilities of an event that is not likely to occur. It is generally associated with using the availability heuristic (Reyber, 2004, in Weiten, 2007). Consider how a debilitating fear of violence based on views expressed in the media can immobilise individuals in spite of excellent safety and security measures in their given environment.
- *Confirmation bias* involves seeking support from those who already share one's views. Information that might question one's decisions is avoided. For example, an aspiring councillor might decide to conduct an attitude survey in neighbourhoods where the majority are known to support his /her views. This councillor could be relying on the anchoring heuristic.
- *Framing* involves approaching a problem by putting it in a particular context, rather than viewing it from various points of view. A person can decide to buy a second hand car based on the "fantastic discount" emphasised by a salesperson (availability heuristic) without verifying the condition of the engine, the number of accidents in which the car was involved or the book value of the car.
- *Escalation of commitment* refers to holding on to a bad decision, even as the evidence of failure mounts. This might explain why people stay in unsatisfactory relationships or work situations. A person may first reason that adjustment problems are normal, using the availability heuristic. Next the person may not be able to admit defeat and try to find justification for the decision. The person's commitment further escalates as other people support it. These people may even block one's efforts to reverse the decision because they too have become committed to the decision. For example, family and friends may not support a contemplated divorce as they are committed to a couple's marriage. This can encourage a person to sustain a bad decision by using the availability heuristic. However, research suggests that commitment becomes less likely as the evidence of failure becomes quite obvious and the person's resources to commit to further action are drained.

### 7.2.3.2 Cognitive control in decision-making

Volition (the use of will power) can be used to control escalation of commitment, as well as other aspects influencing decision-making. Volition can act as an executive control over the making of a decision (Zhu, 2004). *Volition* implies integrated information processing and action control. A person will, for example, set a goal and constantly monitor which actions deliver the best results

in bringing the person closer to attaining the goal. Action control is flexible as the person processes new information which might change the course of the action taken (Christenson, 2006). Selection attention and memory are important in cognitive control.

Investment companies, in their advertisements, remind consumers of the economic principle that time (and therefore patience or cognitive control) is necessary for building wealth. It requires cognitive self-control to wait patiently for shares to increase value over time.

Various lab and field experiments conducted in India demonstrated that poverty had an effect on cognitive control, particularly when participants made economic decisions, and mostly for those with limited working memory.

Three constraining factors deplete mental resources and limit cognitive control and performance when economic decisions are made:

- a) scarcity: when an item is scarce (money), attention is focused on this item, with the result that other issues are ignored and stress/anxiety increases, leading to impulsive and poor decision-making
- b) temptation: cognitive control is important in resisting temptation. Ongoing demands depletes cognitive control, leading to limited will power and impulsive decision-making
- c) difficult trade-offs: poor people cannot afford everything they need, and have to choose between items with more deliberation (in the working memory), which also depletes cognitive resources and results in impulsive decision-making

The study suggested that even routine decisions about everyday goods are difficult for the very poor, and that the depleting effect of these difficulties cannot be escaped. The results of these studies may have implications for the way in which employees, who earn relatively low wages, are taught financial principles and management.

Goleman (1995) refers to a study that demonstrated that control had long-term benefits for performance, success and life satisfaction. In this study small children were each given a marshmallow, and if they were able to keep their marshmallow for some time without eating it, they were promised a second one. This longitudinal study showed that children, who were able to control the impulse to eat their marshmallows, eventually performed better at school, obtained better paid jobs and experienced more life satisfaction. Impulse control is associated with emotional intelligence.

Both studies cited above demonstrate the role of control in effective decision-

making but also demonstrate that it can, at times, be quite a challenge not to make impulsive decisions. For this reason, organisations develop decision-making rules and procedures, and appoint people or groups for taking final responsibility for decisions. The box *Decision-making: Bill Gates versus Steve Jobs* provides an interesting comparison of the decision-making styles used by two successful entrepreneurs.

### **Decision-making: Bill Gates versus Steve Jobs**

Bill Gates of Microsoft and Steve Jobs of Apple, used distinct different cognitive styles whilst managing their companies. Gates was more analytical, pragmatic and calculative. He held well-structured meetings and used his analytical ability to rapidly cut to the bone of issues. He dealt with problems in a less emotional, but focused and disciplined manner.

Jobs was more one for “throwing the bones” and taking chances. Being visionary, he made decisions intuitively, was exceptionally emotional but often also erratic. He had a charismatic personality that, through reality distortion, made the engineers at Apple believe they could attain impossible things within impossible time frames. It often turned out they could!

Interesting enough, Jobs had a greater need to control than Gates. Jobs insisted on having tightly integrated operating systems, hardware and software that was not compatible with products from other manufacturers. One symbol of this need for control was to have special tools made so that only Apple technicians could work on Apple computers.

On the other hand, Gates was more open to collaboration, and he licensed Microsoft's operating system and software to a variety of manufacturers.

Adapted from: Icaacson, W. 2011. *Steve Jobs*. Great Britan: Little Brown.

## **7.2.4 Creativity and innovation**

*Creativity* is generally defined as the ability to produce work that is novel (original, unusual and unexpected) and appropriate (useful and adaptive to task

constraints). Innovation is more than creativity, as innovation refers to the generation and implementation of new ideas. Creativity can be considered the “fuzzy-front end of innovation”. Innovation implies implementation and change (Shavinina, 2011, p.168).

Some researchers maintain that all humans are capable of creativity, which can be learned and is studied in terms of solving problems that require creativity. Others maintain that it is a rare quality, involving unique characteristics of particular individuals. There are also different views of the relation between creativity and intelligence. Creativity is associated with higher intelligence, but intelligence is not sufficient for creativity.

One measure of creativity developed by Guilford is based on the distinction between convergent and divergent thinking:

- *Convergent thinking* applies existing knowledge and rules of logic to narrowing the range of potential solutions and focusing on a single correct answer. Although such thinking is productive in many situations, it does not appear to foster true creativity.
- *Divergent thinking* moves outward from conventional knowledge into unexplored paths and unconventional solutions. A creative person using divergent thinking processes information in diverse ways, finding a new solution or a variety of solutions.

#### **7.2.4.1 Characteristics of creative individuals**

Research has shown that there are many differences between creative and less-creative or uncreative individuals:

- Creativity occurs on a cognitive continuum from primary processing to secondary processing. Primary processes occur in normal states, such as dreaming or musing about something, and they involve concrete images and associations that facilitate new combinations of ideas. Secondary processes are abstract and logical, and occur in conscious wakeful states. Creative people use both processes alternatively – they can access their primary thought processes and can remember their dreams, which they put together by fantasy. Uncreative people seem to get stuck on the more secondary-process part of the continuum and cannot think of creative ideas.
- Creative individuals can pay attention to more things at the same time than uncreative people, who have a more narrow focus of attention.
- Creative and uncreative individuals both think in terms of hierarchies and lateral associations, but the creative person is better than the uncreative

person at making lateral associations. Hierarchies start from the bottom and go upwards (for example, thinking in terms of moving from junior to senior positions). But since hierarchies are structurally limited, ideas in that form tend to run out. The creative person is more capable of thinking broadly, making lateral (flat) associations between remote things (for example, associating a job with a river or a desert).

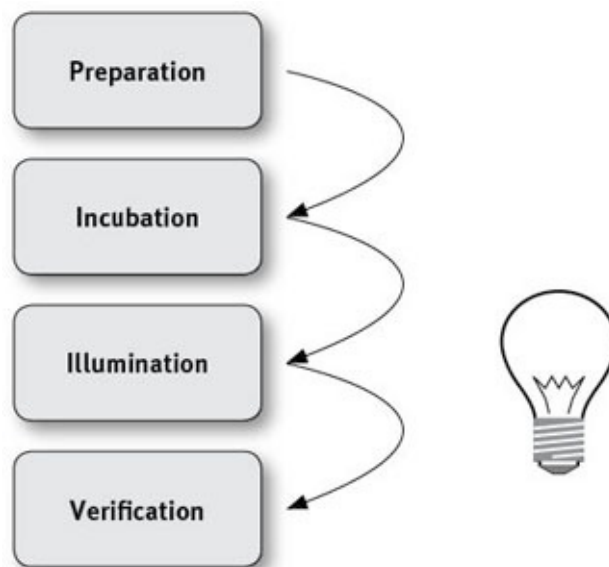
- Creative and uncreative individuals show differences in physiological reactions whilst in the process of being creative. When asked to tell stories, for example, creative subjects show less cortical arousal than less creative subjects. Arousal is measured on a continuum ranging from sleep, to alertness and wakefulness, to emotional tension. Lower cortical arousal shown by creative people could be related to their broader, lateral thinking – whilst less creative people try too hard when they have to tell a story, to the extent that they become tense, which prevents them from thinking of original ideas.
- Creative people seem to have right-hemisphere dominance, which is associated with imagination, intuition and visualisation. Katz (in Martindale, 1999) found that creative architects show right-hemisphere dominance. Left-hemisphere dominance was shown in scientists and mathematicians, whose work requires left-hemisphere functions such as logical and analytical thinking. Katz suggested that this shows that dominance of a hemisphere provides special abilities that facilitate being good at a particular job. The opposite hemisphere, which is not dominant, provides only adequate ability for the job (Martindale, 1999).

As mentioned at the beginning of this section, creativity is the process that happens before innovation. Innovation is a process of implementation and change. Shavinina (2011) investigated the cognitive basis of the characteristics and traits associated with *individual innovation leaders*, i.e. leaders who are innovative themselves and who can lead innovative implementation in their organisations. These leaders are the linchpins of the innovation process and “evangelists” of an entrepreneurial and innovative culture. Examples of these leaders include Jeff Bezos from Amazon, Richard Branson from Virgin Airlines, Akio Morita from Sony, Bill Gates from Microsoft and Steve Jobs from Apple. According to Shavinina, individual cognitive experience forms the basis of individual innovation leadership. Innovation leaders create an intellectual and objective picture (vision) of the world, they have differentiated and integrated cognitive functioning and are able to make generalised, categorised, conceptually rich and complex representations (schemas) of situations.

### 7.2.4.2 The creative process

The creative process shows that, although creative thinking is not structural or calculative, it does take time. The difference is that creative people find the process of thinking relatively effortless and natural. It is generally agreed that the creative process (Figure 7.3) consists of the following steps:

- *Preparation* involves thinking about or learning about the mental elements thought to be relevant to the problem, thus doing initial conscious work on the problem or task. It also includes considering various approaches to addressing the problem, which at first might seem far fetching or impossible.
- *Incubation* involves setting the problem aside, simply forgetting the unimportant details, and unconsciously making associations. The saying “sleeping over it” encapsulates this stage.
- *Illumination or inspiration* is the solution that occurs to the individual after some time, involving insight, with ideas breaking into consciousness because they have become coherent or of aesthetic value. Illumination is sometimes called the “light bulb” stage or “aha” experience, which implies a sudden insight into the problem.
- *Verification or elaboration* is when the new idea is scrutinised and refined to its final form.



**Figure 7.3** The stages in the creative process.

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Different cultures have different views of creativity (see box titled *Creativity in cultural context*). Yet the four-stage model, which is the most often cited explanation in Western culture, seems to have parallels in Eastern models. A group of Indian painters also describe a four-stage model:

- The first stage is also preparatory, but the artist removes him-/herself symbolically from the real world by burning incense and praying to the patron of creativity.
- In the second stage the subject matter becomes an inner part of the artist, who feels that the deity is part of him/her.
- The third stage is similar to illumination, but the insight is more related to personal self-fulfilment than to producing a useful object or subject.
- The last stage is similar to verification. It involves social communications to others of one's personal fulfilments.

In other Eastern models, the creative person starts with meditation, which results in the flow of impressions and images of the object or a flash of insight. This all amounts to the experience of intimate oneness with the spirit or the heart of the object (Lubart, 1999).

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### **Creativity in cultural context**

In Western culture creativity is generally associated with the novel and useful production of thoughts or visible products. In this light, the creation described in the Bible's book of Genesis can be seen as six days of observable progress.

In Eastern culture the focus is not on producing something but on being connected to the spiritual realm and recreating it by creative self-fulfilment.

In African mythology creativity is seen as the production of divine crafts, symbolising God the creator as the Craftsman who is present in the work of the potter, the weaver or the carpenter. African systems have influenced creative thinking in Western thinking, including theorising in psychology (Lubart, 1999).

#### **7.2.4.3 Developing creativity in individuals and organisations**

Patterson and Perlstein (2010) provides a convincing case of how getting involved in the creative arts have both health and cognitive benefits for people. Participation in various professionally conducted community-based cultural programmes led to better health, fewer doctors' visits, the use of less medication, a high level of socialisation and higher self-reported mental health, amongst older people. The point was made that meaningful participation in creative arts enhanced self-mastery, a sense of control, confidence, curiosity, problem-solving, engagement and artistic accomplishment. The programmes were merely arts and crafts projects aimed at keeping people "busy", but involved rehearsals and public performances which typically would also induce low levels of stress.

Ten elements for cognitive enhancement were identified:

- physical activity and movement
- mental challenge and stimulation
- social interaction, bonding, and support
- the need to acquire and refine new skills
- activities that are multi-modal and combinatorial
- enriched and stimulating environments
- the room to fail and the wisdom to learn from failure
- sufficient challenge to create mild (beneficial) stress
- pleasure, fun, and challenging play

- reward.

The main learning points from these studies were that creativity involves the use of multiple intelligences, the right environment must be created to unleash creative potential, and that creativity is good for well-being and cognitive development.

Creativity in the work organisation may be inhibited or facilitated. It can be inhibited by competition, rigid division of labour (such as structures that hinder the flow of communication), or situations that focus on rank and task rather than on developing new approaches to problem-solving.

A survey done by Morris (2005) in New Zealand revealed that creativity in organisations is mostly enhanced by:

- scheduling time for creativity
- appointing competent staff
- providing space and resources so that people can pursue their ideas
- open communication and information sharing
- a supportive organisational structure and creative leadership
- empowerment
- the motivating staff and rewarding creativity.

## 7.3 LANGUAGE

People do not communicate only with others through language – they talk to themselves and daydream in language, and use it as a creative process in their thinking. Research by Goldwin-Meadow showed that deaf children invent their own sign language when they are in a situation where nobody can speak or use sign language (Goldstein, 2005).

The psychological basis of language is studied through the effects of brain damage. Impairment of language and speech has been shown to be related to damage to a part of the frontal cortex, called Broca's area (after initial research by Paul Broca), as well as to the temporal cortex, called Wernicke's area (after research by Carl Wernicke).

Behaviourists proposed that language is learned through reinforcement. This view was refuted by Noam Chomsky, who noted that as children acquire language, they produce sentences that they have never heard, which overrules the role of reinforcement, suggesting that language has an innate biological basis. Chomsky's work influenced the field of *psycholinguistics*, which is the psychological study of language (Goldstein, 2005).

Aspects that psycholinguistics focuses on include syntax and semantics. *Syntax* refers to the rules governing the combination of words into sentences, and *semantics* refers to the meaning of words and sentences. Meaning can always be found in a certain context of language, for example the cultural background, the historical background, or the background of a theme or time of life. This provides the context for the meanings in a written or spoken story (Goldstein, 2005).

In all forms of discourse, language influences communication. Communication is fostered by shared meanings. In a group session, communication between members of a work group can be facilitated by, for example, specifying that the theme is “positive thoughts”, and that negative thoughts will not be allowed. Open and free discourse, emphasised in postmodern approaches, contributes to different specified meanings generating new meanings.

Meaningful conversation is influenced by the following four aspects (Grice, 1979, cited by Goldstein, 2005):

- *Quantity* refers to the amount of information needed. One can say either too much or too little to make a meaning clear. In a conversation concerning the goals of an advertising campaign, for example, a participant might remark that, “The colour factor is the problem.” This would be too little information. The recipient might wonder if colour means the use of certain colours in the advertisements, or the cost of using colour, or showing different races in the advertisements, or aiming at different racial groups as buyers.
- *Quality* refers to the truth of a statement. Individuals may use the word “nice” to avoid more precise descriptions that might hurt somebody. For example one might say that the boss is “a nice guy” rather than saying he is “a friendly but inefficient person”.
- *Manner* refers to clarity and the avoidance of both ambiguity and obscure statements. For example, at the close of a conflict-loaded session one speaker might say, “It was amazing.” Another might reply, “Yes, it is quite funny.” This could leave the rest of the group wondering, “What now? What are they saying?”
- *Relation* refers to relevance. Different meanings attached to a particular word can indicate that different aspects are relevant to a situation. In a conversation about the success of an open-air function, for example, one person may say that the event was “nice” and “cool”, referring to the relevance of the weather in the open air. Another person may use the same words implying that the

speeches were good.

Identifying the above four aspects of conversation has influenced the idea that participants have responsibilities in conducting a conversation.

The relationship between language and thinking is also studied as an aspect of cognitive functioning. Such research was generated by the work of Sapir and Whorf, who in 1956 proposed that the language of a culture influences thinking. Some research shows the reverse, namely that language is rather influenced by the development of thinking, or that besides language, factors such as biology influence thinking.

But the Sapir-Whorf view has been supported by more recent research by Chiu (1972), Ji (2000) and others (in Goldstein, 2005). This research shows that Americans and Chinese think differently when they group words or concepts. When presented with images such as cow, chicken and grass, or words such as “panda” (bear), “monkey” and “banana”, Americans think in terms of objects. Using *classification*, they group the cow, chicken, panda and monkey into a class indicating animals. The Chinese think in terms of *relationships* rather than objects. They group cow and grass, and monkey and banana, indicating the relationship between an animal and what it eats. However, Chinese who later learn English in addition to their own language, also think in terms of classification rather than relationships when English is the language medium.

The box *Assumptions about South Africans* reveal how South Africans, based on some cultural differences, perceive images differently.

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## Assumptions about South Africans

If one presented South African respondents with images of a Brahman cow, grass and a shopping centre (see Figure 7.4), what findings do you think would be likely?



**Figure 7.4** Grouping words or concepts.

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Consider the following assumptions:

- Chinese people will group cow and grass because of the functional relationship.
- Coloured people will group cow and shopping centre because one buys meat in a shopping centre.
- Indian people will group cow and shopping centre because in Indian culture cows are seen as holy and are free to roam anywhere, including the streets of busy cities.
- Black people will group cow and grass because a well-fed cow carries weight in paying lobola for a bride.
- White people will group cow and grass because cattle farming is traditionally a part of the culture of White people.

Do you agree with these assumptions? Can you add different assumptions?

## **7.4 MEMORY**

Memory involves retaining information that is no longer present. It functions like a “time machine”, going back to events in early childhood, such as one’s first day in preschool (Goldstein, 2005).

### **7.4.1 Stages of memory**

In 1968 Richard Atkinson and Richard Shiffrin proposed a model of memory consisting of three stages, namely sensory memory, short-term memory and long-term memory. This distinction is still highly influential in explaining memory. Research on individuals with brain injuries has also substantiated the idea of different kinds of memory implicated by stages. It has been shown, for example, that brain injury could damage short-term memory without damaging long-term memory, in that a person cannot remember what happened a few minutes ago, only what happened before (Goldstein, 2005).

#### **7.4.1.1 Sensory memory**

The sensory memory is fleeting but plays an important role. Sensory memory holds information entering from the senses for only a few seconds or a fraction of a second. It registers what one attends to at a given moment, such as a sound, a face, a touch, a taste or a smell. One can understand sensory memory in terms of the trail of light one seems to see when a flashlight is swept through the air. There is not a real trail of light, but the mind creates the movement as one’s eyes follow the light flashes. People are exposed to multiple sensory stimuli on a daily basis and most of it is soon forgotten.

#### **7.4.1.2 Short-term/working memory**

Through selective attention, information can be transferred from the sensory memory to the short-term memory. The short-term memory holds information for about 15 to 30 seconds. This brief span is necessary to permit fresh information to be registered and newly received information to be stored simultaneously. A practical illustration is a deaf interpreter, who listens and uses sign language simultaneously, translating one sentence into sign language whilst listening to the next sentence. By using sign language, he/she repeats the information. This probably allows some of the information to be stored for long enough for it to reach the long-term memory.



**Figure 7.5** A deaf interpreter at a church service listens to the speaker and gestures in sign language at the same time.

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Short-term memory lasts just long enough for most people to be able to repeat a seven-digit number or seven chunks of information immediately after they have heard it. If this information is not transferred in some way to long-term memory, it will be forgotten unless it is actively rehearsed (constantly repeated).

The retention of information in short-term memory, as well as in long-term memory, depends on certain control processes that the individual can use, such as rehearsal, which means repeating the stimulus, such as a name or telephone number, a few times. Other control processes involve relating the stimulus to something familiar, such as relating the facial structure of a new colleague to the face of an old friend with the same features, or selectively paying attention to what one wants to remember, such as the expression on an interviewer's face.

*Encoding* refers to the different ways in which the information is held. Encoding can be by means of visual images, such as the facial expression of an interviewer; it can be phonological (auditory), such as the sound of the interviewer's voice; or it can be semantic, which refers to the meaning of what the interviewer says, for example the words make you feel welcome and comfortable straight away.

Since the storage in short-term memory lasts only seconds, the amount of information that can be held is very limited.

By the process of *chunking*, short-term memory can hold separate "pieces" of information that somehow seem to be related. Through chunking, the pieces, such as the noises made by a large crowd of people, become a meaningful (semantic) whole. Chunking is an essential function of short-term memory since it enables one to deal with relatively "large" pieces of information (Goldstein, 2005).

When the short-term memory is used for processing as well as storing information, it is called the working memory. The box feature below illustrates this short-term memory capacity.

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## **Working memory**

The “short-term” memory is normally depicted as a system that holds information, whilst the concept “working memory” refers to ability of the short-term memory system to simultaneously hold and process information, a function of higher level cognitive activity (Corbin and Camos, 2011). An example of the working memory is when a person is being interviewed on television and has to keep the question in mind whilst formulating an answer. The working memory is involved in reasoning, planning, problem-solving and learning. Working memory has been shown to include thinking and comprehension, as well as verbal and spatial coding. It helps one to process different types of information that occur simultaneously, such as when a person consults a map whilst simultaneously listening to instructions such as: “Turn first right, then second left at the garage, then third left at the church, continue for 10 minutes, and you’ll see the huge red sign.”

The example illustrates two of the components of working memory, namely the phonological loop, which involves speech-based information (for example, verbal processing, such as listening to instructions) and the visio-spatial sketchpad, which involves the temporary holding of visual images and spatial information, and the organisation of this information.

These two processes are independent of each other, and do not interfere with each other. This indicates that one can think of one thing, whilst doing other things at the same time, whereas the term “short-term memory” indicates that some contents can only stay in the mind for a very short time. Working memory is important in daily life to facilitate thinking (for example, planning and utilising language). It is important to practise the effectiveness of working memory, and not to see it as a kind of memory that deteriorates as one gets older (Nilsson and Rönnerberg, 2006).

An additional component of working memory is a central executive, which involves simultaneously dividing one’s attention between different things.

### 7.4.1.3 Long-term memory

Long-term memory has a seemingly limitless capacity for retaining information. The retrieval (remembering) of information from long-term memory is determined by the ways in which information is encoded in long-term memory. Encoding and retrieval are therefore, in a sense, inseparable processes.

Semantic coding is the most important form of encoding in long-term memory. When seeing a heading in a newspaper, “Mandela for president of the world”, for example, one might immediately retrieve the meaning that Nelson Mandela was a revered world leader. In *Beeld* (4 October 2005), an international survey was conducted to choose a hypothetical “World President”, a post which does not exist in reality. Nelson Mandela was chosen. Respondents’ reasons for choosing him were not specified, but it is possible that retrieving visual images of him, such as those of him caring for underprivileged children, or phonological memories of his voice talking about peace influenced the semantic meaning of respondents’ choices.

There are various types of long-term memory, as the box explains.

#### Types of long-term memory

Long-term memory is divided into declarative and implicit (non-declarative) memory.

*Declarative memory* refers to conscious recollections of experience or facts one encountered in the past. Declarative memory is subdivided into episodic memory and semantic memory (Goldstein, 2005):

- *Episodic memory* involves personal experiences at a particular time or place. When telling their life-stories or writing autobiographies, individuals tend to have flashbacks to significant events in their lives. Examples are remembering one’s father’s stern voice telling one to take pride in one’s work when one is tempted to copy another student’s essay, or remembering the joyous moment when one walked into the bank to finalise a loan for a house.
- *Semantic memory* entails knowledge that is not related to personal experience. For example, a person might remember that members of different ethnic groups have different social customs

that he/she has not personally ascribed to.



**Figure 7.6** Episodic memory – has it become distorted?

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In the everyday use of the term “memory” we are generally referring to declarative memory (Nilsson and Rönnerberg, 2006). Implicit memory refers to past experiences that influence one’s behaviour but which one does not consciously remember. This can apply to political views that people hold, without remembering when and whether they read or heard them when, for example, they are questioned as to why they think that these views are true.

Implicit memory also involves forgetting the procedures involved in acquiring skills, such as learning how to drive, how to play the piano, or how to read. By not remembering the procedures, one might not know how to teach someone else to read.

#### **7.4.2 Prospective memory versus retrospective memory**

The memory process discussed above, especially in relation to the long-term memory and episodic memory, focuses mostly on retaining information about events that happened in the past (*retrospective* memory). What about our ability to remember future events or plans? Graf (2012) bemoans the fact that this type

of memory, called *prospective memory*, receives little attention in the academic field of psychology. However, in everyday life, the failure to remember future plans and events is demonstrated in the way that we use diaries, alarm clocks, electronic reminders, and to-do lists.

Prospective memory is defined as a cognitive function used for formulating plans and promises, retaining them (remembering them) and recalling them at the right time or when the right cues appear. Prospective memory is divided into specific components, such as monitoring, episodic prospective memory, and habitual prospective memory. *Episodic prospective memory* implies a lapse of time between the making of plans and executing them, without consciously thinking of the plans during the retaining period. To execute a plan, it needs to be brought back into the memory at the right time. With retrospective memory a person focuses deliberate attention on recalling past events, whilst with prospective episodic memory the person is typically distracted by multiple current activities (e.g. interesting conversations or seeing various products in a store). This often results in someone forgetting to do what they intended to do. Prospective attention requires of the person to switch attention from these activities to the planned activity, without having typical cues to assist their retrospective memory.

Research has shown that attention is a crucial factor in prospective memory. An implication of this is that when a person is given an instruction to perform a future task, their full attention is required so that they are not distracted by concurrent activities, such as watching television or being focused on a computer screen. In addition, cues for the future execution of a task need to be plan-relevant. For example, a medicine bottle on the breakfast table is a better reminder for taking the required tablets than a note on a piece of paper. Positioning the plan-relevant cue is also important. A medicine bottle right in front of someone is a better reminder than it being in the person's *peripheral focal area* (on the outside edge of the table). The way the person processes the plan-relevant cue will also impact on how they remember to do the task. In the above example, if the person perceives the medicine bottle as a friendly reminder to take the required tablets, then they will be more likely to take the medication than if they perceived it as an obstacle, by perhaps feeling that it emphasises inadequacy on some level.

Interestingly, experimental research has also revealed that personality affects prospective memory and that it is commonly perceived by others as the reason why a person's prospective memory fails. Personality factors such as

conscientiousness and neuroticism showed up as predictors of prospective memory success whilst perfectionism was linked with prospective memory failure. Similar research also revealed that the failure of episodic retrospective memory (recall of past events) was typically considered by others as cognitive failure (blame it on the memory system). The failure of episodic prospective memory, however, was considered a character flaw (manifested in impulsive behaviours or failure to turn up at a planned meeting, thus blaming it on the person).

In conclusion, research shows that a lack of reliability, commitment and motivation (faulty character) rather than cold cognition (faulty memory system) explain failures in prospective memory, which presents a good case for finding ways to promote memory, which is the focus of the next section.

### **7.4.3 Promoting memory**

The memory system itself promotes memory by the ways in which information is encoded, which determines what people remember. In 1948 Donald Hebb provided a psychological explanation for memory which still provides the basis for research on the physiology of memory (Goldstein, 2005). Hebb maintained that information travelling down the axon of a neuron, causing changes at the synapses and releasing neurotransmitters into the receptors of post-synaptic neurons, is the basic mechanism of memory. Memory is accordingly ascribed to changes at synapses. In short-term memory a few post-synaptic neurons are activated and, as the information is repeated, the firing of impulses in those neurons becomes stronger, forming a reverberating connected circuit. As information increases, more neurons become connected, causing structural changes in neuron connections by neurons that form groups. As neuron groupings become larger, one's memory becomes organised in such a way that one can retrieve various associations of, for example, a person, including visual, auditory and semantic encoding. If one has initially paid attention to more sensory sensations related to the person, such as touch and smell, and these sensations were encoded in long-term memory, one might have a "larger" memory of the person.

The individual can promote his/her memory by the organisation of information as follows:

*Elaborative rehearsal* involves making a connection between the object or item to be remembered and something one already remembers. When studying the different life stages in human development, you could link a family member

to each life stage (for example, an uncle who is in middle adulthood), and use this as a basis to remember the development tasks related to each stage. Elaborative learning implies thinking deeply about the meaning, relationships and organisation of information, which is a very active process (Schwartz, Son, Kornell and Finn, 2011).

*Practicing retrieval* implies testing yourself to monitor how much is remembered. What makes this approach useful is the feedback provided after the self-testing. It draws attention to what has been forgotten and simultaneously provides a rehearsal of the information.

*Mnemonics* is a way of remembering unrelated facts or figures by organising them according to a specific visual field known to one, for example a street or a room. Each fact can be allocated a “place” in a room, such as the room in which one studies. To recall the facts one merely looks around the room, seeing every window, wall, door and cupboard, each of which provides a cue for remembering a fact in a sequential order. Using an acronym is an example of a verbal mnemonic, for example remembering that a SMART goal implies a goal that is specific, measurable, achievable, realistic and time-related.

Metamemory implies monitoring, questioning or judging your ability to remember, which amounts to a “feeling of knowing” and can become an autonomous way of acquiring memory and problem-solving skills. It implies monitoring one’s memory and using the feedback to make sensible decisions. For example, a student can judge how much information has been remembered, and subsequently adjust his/her study programme accordingly (Schwartz et al., 2011). It is a similar concept to metacognition, but specifically aimed at monitoring the memory.

*Organising* involves breaking up into sections large amounts of material to be memorised. For instance, a lecture on deviant behaviour can be organised according to a scheme of causes, symptoms and treatment, and will then be easier to remember because the information is not learned as isolated facts.

*Mood state* refers to memory that is promoted if the emotional content of the information that has to be remembered is coherent with the mood of the individual. In laboratory-research situations (cited in Goldstein, 2005) participants were requested to think of positive thoughts whilst merry music was played, whilst others were asked to think negative thoughts whilst sad or depressing music was played. After 15 to 20 minutes quite obvious happy moods or sad moods appeared. When actually learning such information, the happy individuals showed better memory for positive information matching their

moods, and individuals who were sad whilst learning negative information also showed better memory for the information that was congruent with their moods. Research also shows that, irrespective of the content of the material, the material is more easily remembered when the individual is in a mood state similar to the state he/she was in whilst learning the material (Ellis and Moore, 1999). By implication, one can promote memory by selectively paying attention to and thinking about information that suits one's mood at the time, which will then be organised in the brain in terms of emotional associations.

*Humour and exaggeration* can foster memory. One tends to remember what stands out from the ordinary, and by using exaggeration one can make the ordinary seem extraordinary. Humour can involve laughing at one's own shortcomings or presenting the comical aspects of something or someone in an appreciative manner. For example, when trying to remember a lecture by a certain professor on his theory of intelligence, one might remember the theory by remembering him as a short, funny little man who is very animated and lively, even clownish, whilst explaining his theory.

### **How to improve learning and memory**

1. Elaborate by making up questions about the study material and then answering them.
2. Organise material by relating it to other related material, or organise it into something meaningful, such as a mind map constituting a drawing of the principal theme in the middle of a blank piece of paper, with branches radiating from the centre containing connected themes, and other branches containing words and images related to the theme. Add left-hemisphere and right-hemisphere functions to process the information.
3. Associate the material with prior knowledge of something else and link it by means of visual images or words that suggest a meaning.
4. Take breaks. Studying after a rest period gives better feedback on what one learned before the break.
5. Study in different locations rather than in the same room all the time. Research has shown that memory is better when one has studied in different settings. This also makes remembering less dependent on the conditions during the examination (adapted

from Goldstein, 2005).

#### **7.4.4 Forgetting**

*Forgetting* is essentially the inability to retrieve information stored in long-term memory. Familiar cues in the environment might facilitate partial memory of an event with the full memory being on the “tip of the tongue”, requiring more cues from the environment or retrieval from a deeper level of storage. Besides being affected by the way information is encoded, forgetting can be related to interference effects, motivated forgetting, distortion, false memories and mood. Understanding the reasons for forgetting also assists in understanding how the memory can be improved.

##### **7.4.4.1 Interference effects**

When prior learning interferes with the remembering of information learned later, this is called *proactive interference*. Goldstein (2005) says he remembered this concept by thinking of a “pro” (professional) soccer player “smashing things up” whilst running forwards towards his goal. *Retroactive interference* occurs when information learned later interferes with the remembering of prior learning. For example, a student studying for an I-O Psychology examination may forget some information if business economics was learned between the time that I-O Psychology was studied and the I-O examination written.

##### **7.4.4.2 Motivated forgetting**

In psychoanalytical psychology *motivated forgetting* means one uses the mechanism of repression to consciously forget ideas and feelings that are disagreeable to one. Hence one is motivated not to remember.

##### **7.4.4.3 Distortion**

*Distortion* involves changed perceptions over time with, for example, exaggerated emphasis on new knowledge, and the forgetting of the significance of older knowledge in the full context. *Egocentric bias*, which refers to the tendency to see oneself in the best light, might lead to distorted negative perceptions of others who present a threat to one’s own importance. Distortion also occurs in eyewitnesses’ testimonies about crimes. Over time, the eyewitness might not be able to remember the face of the criminal, although he/she saw it clearly during the crime, or the eyewitness might think he/she remembers

something he/she did not actually see if the advocate for the defence uses suggestion as a means of “planting” ideas into the eyewitness’s memory.

#### **7.4.4.4 False memories**

*False memories* are related to distortion, but also involve errors in remembering schemas in which one has grouped experiences. For example, one might have a five-year-old schema of a work day as consisting of early morning coffee, a meeting, tea time, consultations with clients, lunch, and an interview in the afternoon. When flexitime is involved and new work schedules are introduced, such memories related to old schedules for meetings and interviews might upset the coordinated functioning of the department.

#### **7.4.4.5 Mood**

*Mood* can interfere with memory if encoding did not involve congruence between the learner’s mood and the content of the information, or if he/she is in a different mood from the mood that influenced storage of certain information. In any event, both depressive and happy moods can, or might not, impair retrieval. This depends on factors such as deficiency in attention, or lack of cognitive initiative to facilitate recall. The effect of mood is generally stronger if the task is demanding or complete (Goldstein, 2005).

### **7.5 INTELLIGENCE**

There is not one single, overarching view of what intelligence is. Understandings of it vary according to the approaches, models and methods used to investigate it.

There are also differences within and between cultures as to what is significant in *intelligent behaviour*. In Western society cognitive aspects such as memory, verbal ability, reasoning, problem-solving and the speed at which mental tasks are completed are generally valued. Some Eastern societies might question the quality and depth of a task if it is done very quickly. Whilst Western researchers include social skills in intelligence, in some Eastern and African societies they form the central core of intelligence. Chinese societies, for example, value benevolence as well as humility as part of intelligence. As intelligent behaviour African societies include skills in maintaining harmony in intergroup relations, social responsibility, cooperativeness, and even the ability to listen carefully rather than talk. In defining intelligence Buddhist and Hindu

thinking includes noticing and understanding things, determination, feelings, and intellectual opinions. In Australia research with students shows that academic skills and the ability to adapt to new events are seen as part of intelligence (Sternberg, 2006).

At present general agreement over cultures includes the importance of lifelong learning and the fact that intelligence goes beyond conventional intelligence (IQ) testing (Sternberg, 2006). In South Africa there is strong emphasis on testing the potential to learn.

The most influential historical views on current thinking are those of Francis Galton, from the late nineteenth century, and Alfred Binet, from the early twentieth century.

Galton studied success in successive generations of eminent families and concluded that their success was due to genetic inheritance. He did not, however, consider their advantaged environments, which today is seen as crucial in the development of intelligence. He used psychophysical methods, measuring the energy that characterised different individuals and the sensitivity of the senses.

Galton's contribution lies mainly in providing a basis for investigating the existence of more than one intelligence, in that some people have more intellectual endowment than others, and that intelligence can be measured (Sternberg, 2006).

Binet was commissioned by the French government in 1904 to devise a test to identify mentally defective children so that they would receive adequate education and would not be subject merely to teachers' subjective evaluations. Together with Theodore Simon, he devised the first test of general ability for children, testing judgement by incorporating abstract reasoning ability rather than sensory skills. An important contribution of Binet was his belief that intelligence is *malleable*, that is that it can be improved. This view is held high in current thinking, although there are also a minority of investigators, such as Jensen, who question the malleability of intelligence (Sternberg, 2006). Binet's test has been revised for use in many countries.

### 7.5.1 The intelligence quotient (IQ)

The intelligence quotient is a scoring formula suggested by William Stern in 1914. It was incorporated in the first intelligence test for children, the Stanford Binet Intelligence Scale, published in 1916. It gives an indication of a child's development in comparison to other children of the same age, and is obtained by the ratio of mental age (ma) to chronological age (ca) multiplied by 100. The

formula is thus:

IQ =

$$\frac{\text{mental age}}{\text{chronological age}} \times 100$$

chronological age

When mental age is equal to chronological age, a person's IQ is average, for example:

$$\frac{10}{10} \times 100 = 100$$

When mental age is higher than chronological age, a person's IQ is above average, for example:

$$\frac{14}{10} \times 100 = 140$$

This formula is applicable to the natural progressive development of children's mental capacities, but is not adequate for measuring adult intelligence. Adult intelligence varies greatly between individuals and groups, and is not as predictable as it changes more. David Wechsler developed different tasks for measuring adults' and children's intelligence. He discarded IQ and implemented a scoring theme based on the normal distribution, which has been adopted in most intelligence tests. The term "IQ" is still used, but scores are not based on an actual quotient. Most tests are based on deviation IQ. Scores are classified according to their dispersal in the population, in other words how much they differ from a mean (average). The mean indicates average intelligence, which in most intelligence tasks is 100. Table 7.1 indicates how intelligence is classified in categories from extreme moderation to extreme giftedness and which percentage of the population fall into which category.

Using IQ to designate children as gifted or retarded has become controversial. The emphasis nowadays is on educating the mentally retarded and not merely categorising them. It has been found that a person who is slightly mentally retarded (with an IQ of 55 to 69) is able to perform simple reading and writing tasks and do practical work. In sheltered employment such adults can play an economically productive and worthwhile role, but they should be assessed in their own right, because they function at approximately the same level as eight- to twelve-year-olds.

Individuals in the 40 to 54 IQ group can be taught to perform simple tasks and to take care of their personal hygiene. Because of their handicaps, for instance unintelligible speech and physical clumsiness, they should perform sheltered labour and receive considerable support for their own safety. They function, as

adults, at the level of four-to seven-year-olds.

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**Table 7.1**

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The classification of IQ scores

IQ score

Descriptive category	% of population
140+	

extremely gifted	0,38
130–139	

highly gifted	1,90	
120–129	gifted (superior)	7,40
110–119		

high average	15,46
90–109	

average	49,72
80–89	

low average	15,46
70–79	

borderline mental retardation	7,40
55–69	

slight mental retardation	2,03
40–54	

moderate mental retardation	0,14
25–39	

serious mental retardation	0,08
0-24	

It is commonly accepted that persons with an IQ of lower than 25 are uneducable. They are completely dependent on others and are sometimes referred to as “dependent retarded”.

The inability of mentally retarded people to benefit from training, education and experience can be attributed to the problems they experience in focusing their attention productively, their inability to learn, understand and remember concepts (factors that complicate progressive learning), and the attitude some acquire that they cannot do things. This attitude can sometimes also be blamed on other people who do too much for them.

With regard to giftedness, authors are inclined to set their own criteria for classifying gifted people. Research findings and giftedness vary. Child geniuses have been found to be mature for their age and well-adjusted, to do well in leadership positions, and to be socially accepted since it is regarded as “normal” for a genius to be eccentric. Research has, however, also shown that being a child genius is not necessarily predictive of academic or job success.

Extraordinary achievement has been found to be related to determination, intensive training and hard work. Researchers have found that eminent scientists, musicians, writers and artists push themselves and practise much more than their less successful counterparts. D.K. Simonton explains these aspects of exceptional achievement in terms of “drudge theory” (Weiten, 2007:351). Drudge theory explains exceptional achievement according to serious determination, hard work, and tedious practise and training.



**Figure 7.7** Photo of group of schoolchildren in music class.

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## 7.5.2 Approaches to intelligence

Ways of studying intelligence can be grouped under the structural approach and the dynamic approach.

In the structural approach the focus is on the quantity of intelligence (what constitutes intelligence) and on developing tests and statistical techniques to establish how much intelligence (or factor thereof) a person has.

In the dynamic approach the focus is on the quality of intelligence (how intelligence is used). The main concern is the malleability of intelligence. Tests incorporate cognitive processes that contribute to developing intelligence.

### 7.5.2.1 The structural approach

There have been five main psychologists who have been influential in the structural approach, namely Charles Spearman, Louis Thurstone, Philip Vernon, Raymond Cattell and J.P. Guilford.

Charles Spearman (1863–1945) proposed a two-factor model of intelligence. He developed a statistical technique called *factor analysis*, which revealed a type of factor that represents performance on several tasks requiring intelligence. This

suggested that the tasks are interrelated, forming one overarching type of intelligence, which he called *general intelligence* (g). Another type of factor, which indicates specific performance on specific tasks emerged, which he called *specialised intelligence* (s). The s factor is the primary source of individual differences in intelligence, whilst g indicates whether a person can be called intelligent or not. Spearman maintained that g could be used to improve skills in specialised areas, for example, if a person has a high g but an average s in mathematics, his/her general intelligence can be utilised to improve the mathematics (Davey, 2004). The box below illustrates the difference between general and specialised intelligence.

### **Playing a musical instrument improves general and domain intelligence**

It is a well-established fact that music training (such as playing a musical instrument) has a positive effect of on general cognitive abilities. The question remained of whether this impact is specific to a domain of intelligence or general. In a study conducted with 194 German boys in Grade 3 to determine the effect of musical training on reading and spelling performance, it was found that 53% of these boys had learned to play a musical instrument and that they, as expected, tested higher on a non-verbal intelligence test. In addition to general intelligence, it was found that they showed better performance in a spelling test compared to boys who did not have music training. The isolated improvement of spelling but not reading suggests a specific link between musical training and spelling abilities mediated by improvement in auditory analysis. The findings therefore suggest an association between music training and general cognitive ability as well as a specific language link.

The researchers did caution that further studies would be required to determine whether these results could be generalised to languages other than German. This caution demonstrates sensitivity for cross-cultural differences in intelligence testing.

Hille, K., Gust, K., Bitz, U. and Kammer, T. 2011. *Associations between music education, intelligence, and spelling ability in elementary school*, (7), pp.1-6.

Louis Thurstone (1887–1955) identified seven groups of factors by factor analysis, which he called primary mental abilities. Although they were interrelated, Thurstone did not think they formed a single entity that could be called general intelligence. Thurstone saw intelligence as a linked system encompassing the following primary abilities:

- *Spatial visualisation* (S) refers to the ability to identify proportions in shapes, and to form and handle visual-spatial images.
- *Numerical ability* (N) refers to the operation of numerical functions.
- *Perceptual speed* (P) refers to the ability to identify and perceive visual detail rapidly and accurately.
- *Verbal comprehension* (V) involves the ability to understand spoken and written language (words and sentences) in context.
- *Word fluency* (W) is the ability to use language and words rapidly and flexibly (in speech and writing).
- *Memory* (M) is the ability to store and productively retrieve information, for example words, figures and symbols.
- *Reasoning* (R) refers to the ability to think logically, to solve problems through planning and to use principles.

In job analysis, task requirements are predominantly linked to constructs that correspond to Thurstone's primary abilities.

In 1950 Philip Vernon proposed a synthesis of Spearman's and Thurstone's models in the form of a hierarchy. He placed the general factor on top, and two factors next to each other below it. They are less general, and together contribute to the general factor at the top. They are verbal-educational abilities and spatial abilities.

In 1971 Raymond Cattell proposed a model that is somewhat similar to Vernon's model. He also placed general ability at the top of a hierarchy and beneath it, two abilities called fluid intelligence and crystallised intelligence. *Fluid intelligence* is the ability to combine concepts by abstract reasoning and flexible thinking. *Crystallised intelligence* refers to knowledge sets that have accumulated as a result as fluid intelligence. It is measured by items on intelligence tests measuring, amongst other things, vocabulary, general knowledge and the ability to multiply (Davey, 2004; Sternberg, 2006).

J.P. Guilford developed a theory on the structure of intellect (SI) in 1967. His SI model comprises 120 distinct abilities, which are organised in three dimensions, namely:

- operations, including memory, evaluation, convergent thinking and divergent

thinking

- contents, including visual, auditory, symbolic and semantic contents
- products, which are the outcomes of operations and contents (for example, abstract intelligence based on divergent thinking and using symbolic contents).

Guilford's SI model is an attempt to systematically integrate all intellectual functions. Whilst research findings suggest that Guilford's model was not justified by the factor-analytic methods he used, that does not mean that his theory is wrong (Sternberg, 2006).

### 7.5.2.2 The dynamic approach

The most influential psychologist in the development of the dynamic approach to intelligence is Lev Vygotsky. Vygotsky (1978) maintained that intelligence develops through *social mediation*. A child learns by observing the actions of others in the socio-cultural environment. The child internalises these actions as part of him-/herself, thus learning how to act in certain ways in particular situations (Sternberg, 2006).

Vygotsky emphasised the importance of learning in intelligence, by introducing the concept of the *zone of proximal development* (ZPD). The ZPD refers to undeveloped capacities that have the potential to develop through learning opportunities. The ZPD is not obvious – it only manifests after learning opportunities have been provided (De Beer, 2002). It does not refer to actual, developed abilities that the individual can already use. It refers to cognitive processes that can develop as the individual benefits from and learns to cope with new learning situations (De Beer, 2006).

## Learning potential

Based on Vygotsky's concept of the ZPD, *learning potential* is currently the focus in the dynamic approach to intelligence testing (De Beer, 2002). The assumption in learning-potential testing is that cognitive ability can change over time as environmental conditions improve. Therefore tests should measure the capacity to learn, or the ability to adapt to change. Intelligence is not seen as an immutable, static quality. It is seen as an innate learning potential, related to fluid intelligence. This differs from the view associated with IQ measurement, which focuses on crystallised intelligence that has developed from prior learning.

A widely used learning-potential test is the Learning Potential/Computerised Adaptive Test (LPCAT) developed in South Africa by Marie de Beer (2002). It constitutes a test-train-retest procedure that is administered by computer.

In learning-potential tests some form of training or assistance in learning is provided as part of the assessment process. The goal is to establish whether and how the individual's ability will change if a learning opportunity is provided. The ZPD is interpreted as the difference between the initial test and retest scores. The larger the difference, the more likely the individual is to improve his/her performance. Since the ZPD is interpreted in terms of a combination of initial (actual) performance level and improvement from that level, it does not necessarily mean that an individual with a small ZPD is not suitable for a particular job. For example, a professor in mathematics might show a small learning potential, because she already has a high actual performance level. A teenager in Grade 12, in comparison, is likely to show higher learning potential because his actual performance level is lower. In situations that focus on learning potential, credit must also be given to the learning level that has already been accomplished and forms part of the learner's repertoire. The professor might show a low ZPD, but since she already functions at a high level, she should by all accounts be able to cope better than most people with virtually any new learning situation (De Beer, 2006). The Ethical reader *Learning-potential testing and diversity* explains the importance of taking cultural and language differences into account during cognitive testing.

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**ETHICAL READER: Learning-potential testing and diversity**

Learning-potential testing allows for the testing of individuals from diverse backgrounds, including the disadvantaged, as it does not rely on language proficiency or educational background (De Beer, 2002).

Establishing the learning potential of people disadvantaged by schooling or background is more suitable for predicting academic performance than static measures of cognitive ability and school-leaving results. Learning potential can also be a helpful indicator when employers are responding to employment equity legislation (Van der Merwe and De Beer, 2006).

## **Emotional intelligence**

Emotional intelligence (EI) is discussed under the subject of emotion in Chapter 8 ([section 8.13](#)), but requires mention in the context of intelligence because the term “EI” is used in ability testing. *Emotional intelligence* refers to the ability to manage one’s emotions and interpersonal relationships. One’s success in some aspects of life can be due not only to one’s IQ, but to one’s EI as well.

Although people are not born with the capabilities and competencies involved in emotional intelligence, these traits can be learned throughout life. In the work context, coaching and training can especially facilitate emotional intelligence.

A widely used test of EI is the Bar-On EQI developed in South Africa by Jopie van Rooyen and partners.

## **Contextual intelligence**

Robert Sternberg focuses on the role of experience in developing intelligence and emphasises that different manifestations of intelligence are valued in different contexts. He introduced the concept of successful intelligence as the manifestation of three types of intelligence, each applying in a particular context:

- *Analytical intelligence* involves abstract reasoning, evaluation and judgement, and is important in the contexts of most schoolwork.
- *Creative intelligence* operates in contexts where new ideas must be found and novel problems dealt with.
- *Practical intelligence* is required in everyday contexts at home or in a job (Weiten, 2007).

Sternberg and O'Hara (1999) suggest that successful intelligence might be an explanation for the relationship between creativity and intelligence. Creativity includes all three constituents of successful intelligence, comprising finding new ideas, evaluating them and making them useful (communicating them effectively).

## Multiple intelligences

Developmental psychologist Howard Gardner introduced the concept of multiple intelligences and suggested that people have different types of intelligences, with each type revealing itself within the context of specific tasks, domains and disciplines (Patterson and Perlstein, 2011).

Howard Gardner maintains that there are at least eight intelligences, which function independently and do not comprise a single intelligence. These eight intelligences are:

- *interpersonal intelligence*, the ability to understand the feelings and intentions of others
- *intrapersonal intelligence*, the ability to understand oneself
- *spatial intelligence*, the ability to perceive visual information and manipulate shapes and objects
- *logical mathematical intelligence*, the ability to reason abstractly and manipulate numbers
- *linguistic intelligence*, the ability to learn and use languages
- *bodily-kinaesthetic intelligence*, the ability to control eye-hand coordination, muscle movements and body position
- *musical intelligence*, the ability to identify and manipulate sounds, rhythms, tempo and pitch
- *naturalistic intelligence*, the ability to understand the usefulness as well as dangers of the animal and plant worlds (Davey, 2004).

Gardner's theory has evolved from his investigations of the cognitive capacities of individuals suffering from brain injury, normal people, and special groups. Special groups included individuals suffering from the idiot-savant syndrome, who have very low general intelligence but have exceptional skills in a particular ability, normally music, art or mathematics.

Since Gardner's theory is based on a very wide array of people, he maintains his theory reflects what universally determines intelligence. Although his theory is widely influential, his critics maintain it is not yet a scientific theory because there is not a test to measure all eight intelligences.



**Figure 7.8** Which of the multiple intelligences, identified by Gardner, are used by performers in a musical play, as illustrated in this photo?  
Source: Collegiate High School for Girls, Port Elizabeth

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## 7.6 SUMMARY AND CONCLUSION

Studying cognition entails studying how an individual processes information and utilises knowledge by productive thinking. Concept formation produces categories for classifying people or objects, problem-solving produces solutions, decision-making produces choices, and creativity produces novelty that is functional. Language facilitates social communication and self-expression, whilst memory stores all that one knows – although this cannot always be retrieved. Intelligence involves various developed abilities that can be measured, as well as potential abilities that can be developed.

Cognitive processes can be seemingly abstract and difficult to visualise. They are however essential to one's knowledge of human beings, as they are the mental representations by which one makes contact with the world. Cognition is studied in the context of neuropsychology, of computer science and of social science and culture. The current focus on seeing cognitive psychology as a study of the human being as a human being requires the investigation of not only the structure and functions of the brain, but also the social purposes of cognition, how cognition facilitates life in the real world, and how people can respond flexibly and appropriately in changing contexts. As the brain has plasticity, cognitive processes should be seen as dynamic rather than fixed.

## **7.7 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Which of the following concepts are NOT associated with concept formation?
  - a) prototype
  - b) categorising
  - c) algorithms
  - d) schema
  - e) mental construct.
2. Which error in problem-solving is evident when a person sticks to an old procedure even if it turns out to be useless in a new situation?
  - a) mental set
  - b) the anchoring heuristic
  - c) the escalation of commitment heuristic
  - d) confirmation bias
  - e) functional fixedness.
3. A sales person quotes an old price to a client, forgetting that a new price structure has been emailed to him. This memory failure is most likely due to:
  - a) motivated forgetting
  - b) distortion
  - c) interference
  - d) mood
  - e) false memories.
4. John "totally forgot" to meet a colleague in the conference room as

was planned the previous day. What type of memory failed John in this situation?

- a) episodic memory
  - b) retrospective memory
  - c) implicit memory
  - d) long-term memory
  - e) prospective memory.
5. A shortcoming of the structural approach to intelligence is that it:
- a) considers learning potential rather than actual intelligence
  - b) relies too much on a tested intelligence quotient
  - c) focuses on analytical rather than practical or creative intelligence
  - d) only makes provision for general intelligence
  - e) emphasises quality rather than quantity.

### **Answers to multiple-choice questions**

1 = c; 2 = a; 3 = e; 4 = e; 5 = b

## Issues for discussion and practice

1. Your cellphone does not want to work properly. Explain how you will make use of different type of problem-solving strategies to solve the problem.
2. How can metacognition assist a person in becoming more creative?
3. What factors inhibit creative thinking in individuals and organisations?
4. What factors influence the learning of a language?
5. You are a state witness in a robbery case. Explain how you will use the three stages of memory whilst giving your testimony.
6. Employees need to remember a new safety rule, *i.e.* wearing earplugs whilst performing a specific task. What principles should be taken in account to improve their prospective memory? Give creative examples of how these principles can be applied in this specific situation.
7. Explain how the structural and dynamic approaches to intelligence differ. Are they mutually exclusive, or can they be used together?
8. Explain how a person's IQ is calculated, and discuss the limitations of using this measure.
9. What is the implication of contextual intelligence when considering a person for a specific job?
10. Why is it useful to measure emotional intelligence?

## CASE STUDY

Thomas, a keen if not slightly inexperienced DIY handyman, decides to build a fireplace at his house. He has a rough idea of what he wants. For him, a fireplace needs to be big enough to cater for the whole family and have a buildin grid that can be adjusted. It also needs a place to store wood and essential tools, and have a surface area for putting pots, braai tools and other essentials. He has other ideas too, for example, to put up hooks (as seen in a bathroom) for his gloves and the brush he uses to clean the grid. He has considered building a bench for his family to sit on, but his finances does not allow him to buy material for that. He has been thinking about it for a while, and has even looked around his house and at the local rubbish dump, asked his neighbours, looked in magazines, without finding any ideas for cheap seating that he is satisfied with. He was definitely not putting an old broken car seat down (his neighbour's idea), using their smart dining room chairs (his wife's idea) or upside-down empty paint buckets (his son's idea) at his new fireplace!

Before he starts, Thomas meticulously makes a list of all the building material and equipment required. He takes an old list that he used for building a wall in his front garden and works from that, making changes to the quantities as required. He wants a chimney for his braai which he knows must be built narrower at the top. He watched his neighbour building an arch a year ago, and decides to use the same technique, as it is really the only technique he has ever seen used. Thomas stops writing for a moment and thinks of how his neighbour solved a specific difficult problem and how he would have done it differently. He then breaks away from the memory and works out how much cement and sand he will need. He is not worried about mixing cement as he will use the step-by-step instructions for quantities and mixing method on the packaging. Mixing cement is really just like baking a cake or bread. You just add a bit of this and a bit of that until the consistency is right. To make sure he remembers everything, Thomas makes a rough sketch of the envisaged fireplace, with all the trimmings, including cupboard doors, handles,

hooks and the narrowed chimney.

The next weekend Thomas is ready to start building the fireplace. As he walks out of the house with his overall on, he gets an idea for seating. He quickly grabs his cellphone and calls his cousin: "Johnny, do you still have those split poles lying in your backyard? Yes? Great! I am going to build the most amazing bench. Thanks, see you tomorrow then." He walks outside, takes his measuring tape and checks whether his plan will work.

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1. Find examples of concept formation from the case study.
2. Which problem-solving strategies did Thomas use? Support your answer with examples from the case study.
3. Discuss the stages of the memory process and provide examples from the case study of each stage.
4. Discuss the stages in the creative process and indicate how these apply to Thomas in his search of a creative idea for building a bench at his fireplace.
5. The dynamic approach to intelligence postulates that intelligence manifests differently in different people. Explain this approach by using Thomas as an example.

## **CHAPTER 8**

# **Motivation and emotion**

*Jerome Kiley*



## [Introduction](#)



[Various perspectives on motivation](#)



## The Hawthorne studies and human motivation



## Motivation and physiological needs



Motivation, values and personality



## Extrinsic sources of motivation



## Intrinsic sources of motivation



Applying motivational theories in practice in the organisation



## The role of motivation in emotion



Mood, temperament and the expression of emotions



## Explanations for emotion



## Culture and emotion



Emotional intelligence



## Summary and conclusion



## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- explain the link between motivation and emotion
- understand the impact of physiological need on emotion
- discuss how motivation is impacted upon by personality
- distinguish between extrinsic and intrinsic sources of motivation
- apply the various theories associated with extrinsic and intrinsic sources of emotion
- predict the effectiveness of various workplace based motivational strategies
- distinguish between mood, temperament and the expression of emotions
- explain the different theories on the sources of emotion
- explain the impact of culture on emotion
- discuss the importance of emotional intelligence on both motivation and emotion.

## 8.1 INTRODUCTION

When you wake up in the morning, you get out of bed, when you feel hungry, you eat something. There is a force that drives you to get up and to eat. But many choices that we make are of our own free will, like deciding to study. If you were asked why you had decided to study, you may answer to get a good job, or perhaps you are particularly interested in your course of study or you may have been motivated to study because that is what all your friends have done. Some employees may work for the money alone, whilst others may work to keep busy, or for the recognition or the enjoyment of working. Motivation is concerned with the “why of behaviour”, in other words the factors that drive us to make certain choices as opposed to others. Motivation can thus be defined as “*goal-directed behaviour*, or those aspects that push or draw people towards certain behaviour and make them avoid other forms of behaviour” (Kiley, 2011a, p.196).

At the same time, you may often experience that you are particularly driven to achieve something, such as attend a class that you particularly enjoy, or perhaps

that a particular person attends the class that you are attracted to. Other times you may not be particularly motivated to attend class because you are feeling down or depressed. Emotion or affect can be defined as “an internal process that modifies the way an organism responds to a certain class of external stimuli” (Numan and Woodside in Kalat, 2012, p. 356). Emotion thus plays an important role in motivation and cannot be separated from it, as Kalat (2012, p.356) notes: “Distinguishing between motivation and emotion is difficult, and possibly not worth the effort.” In fact, the words motivation and emotion have the same Latin root, that is, “movere” which means “to move” (Kowalski and Westen, 2011).

Knowledge of motivational concepts and practical motivational strategies are important for the industrial and organisational (I-O) psychologist as they relate to understanding diversity and individual differences in and amongst employees, which impacts directly on the performance management of employees.

This chapter’s *aim* is to explain the roles of motivation and emotion in human behaviour, and how motivational concepts and strategies can be applied in the workplace.

## 8.2 VARIOUS PERSPECTIVES ON MOTIVATION

Approaches, concepts and strategies on human motivation are largely related to classical and more recent perspectives in psychology, for example, behaviourism and cognitive psychology, and their related theories, assumptions, concepts and related research. I-O Psychology, though, as an applied psychological science, has also developed many work-related motivational theories, concepts and applications. Concepts and assumptions in this chapter can more or less be considered to belong to one or more of the following perspectives (Morris and Maisto, 2010; Weiten, 2011).

*Instincts* is a concept not used much to explain human behaviour any more, however, it refers to innate or inborn behaviour patterns which direct behaviour (for example, hunting, fear, rivalry, curiosity, shame, love, sex, aggression and resentment). A variant of instinct theory may be evolutionary theory, which explains goal-directed or motivational behaviour in terms of the reproductive or survival and adaptive value of certain behaviours across time (for example, sexual behaviour, aggression, dominance, affiliation and achievement).

*Drive-reduction approaches*, which asserts that bodily, social and emotional needs may arouse certain drives, desires, needs or motives (for example, hunger and to be loved) which can direct motivational behaviour until such a need is

reduced or satisfied and a state of homeostasis is reached again.

*Arousal theory* assumes that people may have different and optimum levels of emotional arousal which may go beyond the point of a need or desire being satisfied or reduced. In general it is assumed that simple tasks may need higher levels of arousal, and complex tasks lower levels of arousal in order to perform optimally.

*Intrinsic and extrinsic motivation*, in which intrinsic motivation characterises goal-directed behaviour where the motivation is intrinsic to a person or in tasks or processes. Some people do things for the sheer pleasure of it, whilst others may not enjoy the same activities. In contrast, other peoples' goal-directed behaviour may be externally motivated, for example, working for incentives like the pay only or only studying because of parental pressure.

In modern psychology the relationship between *emotions and motivation* is emphasised as an important source to really understand many aspects of human behaviour and coping.

*Positive motivation*, which refers to the influence of positive psychology in its emphasis on sources of health and resiliency. The emphasis is on positive emotions, behaviours and resources in people, for example, happiness, joy, optimism and humour, which contribute to resilience, optimal functioning and health.

## 8.3 THE HAWTHORNE STUDIES AND HUMAN MOTIVATION

A major change to how employees were viewed in the workplace came about through the *Hawthorne studies* conducted by Elton Mayo between 1927 and 1932 at the Hawthorne plant of the Western Electric company in Chicago (Pride, Hughes and Kapoor, 2008). The studies comprised two major experiments, the first involving varying the lighting in the workplace for one group of employees and leaving it constant for a second group of employees, the control group (see [Chapter 22](#)). The researchers were astounded that productivity improved for both groups of employees. In fact, for the employees for whom the light was varied, productivity remained high until the lighting was reduced to the level of moonlight.

The effectiveness of the piece-rate system (where the employee is paid for each unit produced) in increasing the outputs of employees was measured in a second set of experiments. The expectation was that the rate of production would

increase due to the pressure put on slower workers by the faster one's to increase their rate of production. The researchers were again surprised by the result, as the rate of production remained constant despite changes in the "standard" rates set by management (Pride, et al., 2008).

The conclusion that the researchers came to was that human factors were responsible for the unexpected results of the experiments. In the case of the lighting experiments workers were aware of the fact that they were being observed and felt involved in their jobs simply by being requested to participate in the experiments. In the case of the piece-rate experiments the group informally set a rate that was acceptable to the group. The different members of the group had to adhere to this in order to gain social acceptance by the group, that is, they would experience social pressure if they worked too fast or too slowly.

The key insights that the Hawthorne studies provided was that human factors are at least as important as the rate at which employees are paid. This led to the birth of the human relations movement in management which had the main premise that "Employees who are happy and satisfied with their work are motivated to perform better" (Pride, et al., 2008). This in turn led to the formulation of a number of motivation theories that attempted to answer the question as to which factors are important in motivating employees.

## 8.4 MOTIVATION AND PHYSIOLOGICAL NEEDS

The idea that *homeostatic drives* control behaviour was first proposed by Walter Cannon in 1929. The premise that underlies the theory is that our behaviour is determined by the body's need to maintain a constant level of physiological functioning. Physiological drives are determined by tissue needs that are satisfied by the activation of brain hormones, which leads to the release of hormones (Gorman, 2004, p.14). One of the best-known theories concerning physiological needs is the homeostatic drive theory, first proposed by Hull in 1943 and developed by Spence in 1958 (McMorris, 2004). According to this theory, the human body aims to maintain a balanced state, or *homeostasis*, through various physiological mechanisms, for example, glandular and brain functions.

The main features of homeostasis are as follows:

- Each *homeostatic mechanism* has a set point that identifies the ideal range for itself. For example, the human core body temperature is 37 °C.

- There is a *corrective mechanism*, contained in the hypothalamus of the brain that makes alterations when it detects a significant deviation from the set point. For example, employees may take off some clothing when they feel hot, drink when they are thirsty or eat if they feel hungry.
- There is also a *prospective element* that helps people predict future changes that may occur. People may, for example, act in the same ways as previously in order to pre-empt predicted future changes (Gorman, 2004, pp.18–19). For example, one often eats at lunch time simply because of habit, that is, you are expecting to be hungry so you eat in order to avoid becoming hungry.

## 8.5 MOTIVATION, VALUES AND PERSONALITY

*Motivation* is a complex phenomenon in that different motivators do not have the same effect on everyone, for instance, one person may be strongly motivated by money, whilst another person values a good quality of life. These differences relate to personality characteristics that are driven by personal values (see [Chapter 9](#)). *Values* can be defined as “an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence” (Rokeach, 1973, p.5), that is, they are personal beliefs that have an emotional value and are developed through experiences and cognitions. They are similar to needs in that they arouse, direct and sustain behaviour. However, many needs are inborn, whereas values are learnt through experience and cognitions. Values guide behaviour, as they are the standards that people use to make the choices which will satisfy certain needs (Latham, 2007).

Through studying the earlier chapters and later chapters, you will notice that there are a multitude of approaches to defining personality; however, a simple definition that encompasses most of these approaches is “those characteristics of individuals that describe and account for consistent patterns of feeling, cognition and behaving” (Weinstein, Capitanio and Gosling, 2008, p.330).

*Personality* thus directs and drives behaviour, that is, you are motivated by your personal characteristics. Personality traits, such as being assertive and in control and decisive, or alternately letting others take control, guide behaviour. Individual traits thus need to be considered when employing individuals and also in the allocation of duties and responsibilities to existing employees. Several personality theories (for example, Allport and Cattell’s theory) include personality traits or attributes, which motivate behaviour (see [Chapter 16](#)).

Whilst behaviour is driven by personality and values, a distinction can be made between extrinsic and intrinsic sources of motivation. Keller (2010) notes that although the intrinsic-extrinsic concepts are presented theoretically as a dichotomy suggesting that a person is either intrinsically or extrinsically motivated in a given situation, and given the complexity of people and their behaviour, elements of both are often interwoven in a particular situation.

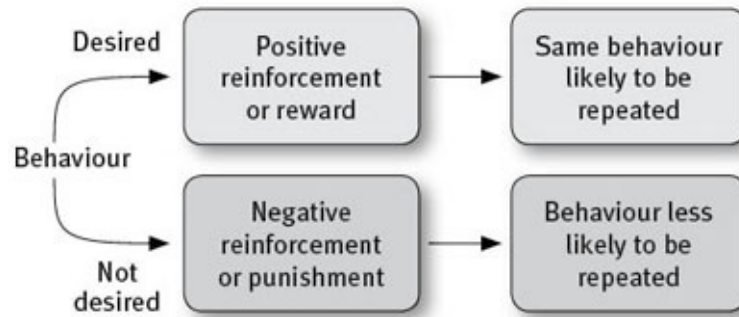
## 8.6 EXTRINSIC SOURCES OF MOTIVATION

*Extrinsic motivation* comprises external drivers which include things such as circumstances, situations, rewards or punishment that result in obtaining an external benefit. Extrinsically motivated individuals focus on tasks for the rewards that they will gain from these, not for the pleasure of completing the task itself (Keller, 2010). These benefits can be both tangible (such as money, physical rewards, or prizes given to employees) and intangible (such as recognition and praise), which employees experience in how they are treated and managed.

There are a number of approaches that focus on extrinsic sources of motivation, including behaviour modification, goal setting theory and work and job design.

### 8.6.1 Reinforcement and behaviour modification

*Behavioural modification* procedures focus on changing the observable behaviour of the person (Miltenberger, 2012). This approach is governed by the *Law of Effect* which was coined by the behaviourist B.F. Skinner (see [Chapter 15](#)) who postulated that behaviours that are followed by a positive outcome will be repeated, whilst those followed by negative outcomes will not be repeated (Kassin, 2006). The emphasis is not on goals or inner states of employees that drive their actions, but the factors in the environment that will reinforce, influence, control and change behaviour, which is important for employee motivation (Robbins, Judge and Odendaal, 2009).



**Figure 8.1** The consequences of behaviour.  
Source: Kiley (2012, p.121)

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Figure 8.1 illustrates the Law of Effect in that it indicates that employees will repeat behaviours that are positively reinforced, and behaviours that are not reinforced are less likely to be repeated. Personality and values play an important role here as a key requirement for behaviour modification to work is that the employee must either value the reward, or experience the punishment as negative. These are predominantly extrinsic rewards in that they are provided by an external source, such as management or colleagues, for example, financial reward or recognition (Steers, Porter and Bigley, 1996).



**Figure 8.2** Positive reinforcement helps to modify behaviour.

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**Figure 8.3** Negative reinforcement.

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### 8.6.2 Goal setting theory

*Goal setting theory* is based on the idea that “behaviour is regulated by intentions” (Latham, 2007, p.53). One of the most influential management books based on goal setting theory is *The one minute manager* by Blanchard and Johnson (1983) which set out the management by objectives (MBO) approach to management. Goal setting theory is based on the principle that employees are motivated by conscious goals that direct and energise them (Blanchard and Johnson, 1983) which have been set in conjunction with their managers (Griffin and Moorhead, 2012). Therefore, management needs to set specific goals for employees, and some employees also set personal goals, the achievement of which is monitored and evaluated.

Key propositions underlying goal setting theory are:

- Specific goals lead to higher levels of performance than no goals or abstract goals, such as “do the best you can”.
- Depending on the level of commitment, the higher the goal, the higher the level of performance.
- Issues such as monetary incentives, participative decision-making, feedback and knowledge of results affect performance only when employees are committed to goals (Latham, 2007).

Goals should be mutually acceptable to the manager and employee, implying that goals should be set through consultation. This is based on the concept of *ego investment*, which holds that if employees are involved in goal setting, the goals become “our goals,” as opposed to “management’s goals” (Kiley, 2012).

The principles involved in setting effective goals are encompassed by the concept known as *SMART* (Kiley, 2012), namely that goals should be:

- **Specific:** Goals should be restricted to a particular result.
- **Measurable:** There should be specific criteria against which success or failure can be measured.
- **Achievable:** Goals should not be too difficult because this will make the employee avoid them, or too easy because they will be boring.
- **Realistic:** In terms of the employee’s abilities and the circumstances, such as time and available resources.
- **Time frame:** Goals should be linked to their completion in the form of deadlines.

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### **MBO in action – performance appraisals**

Goal setting lies at the centre of the management by objectives (MBO) process. Employees, together with their managers, set long-range goals which are then cascaded down through the different levels of the organisation.

Managers and employees sit together setting mutually acceptable goals by which the performance of the individual employee is appraised. A key aspect is that MBO focusses on setting measurable goals. Grobler, Wörnich, Carell, Elbert and Hatfield (2006) note that good goals in the context of MBO include:

- a clear description of what is to be accomplished

- specific deadlines
- the resources to be used in achieving the goal.

Part of the goal setting process involves action planning where the process of achieving the set goals is examined. This may vary quite extensively in terms of the nature of the job and the level of employee involved in the performance management process. For example, if the process involves a clerk who has the goal of setting up a filing management system within three months, the manager may provide a number of criteria as to how the files are to be organised as well as a number of follow-up meetings to monitor progress. On the other hand, if the process involves setting goals for a departmental manager, the senior manager may very well leave the departmental manager be and only assess the achievement of the end goal.

The primary assumption at the heart of MBO is self-control, namely that employees will take responsibility and will be driven to achieve the set goals as long as they have the necessary resources and the support of the organisation.

MBO systems then also include periodic reviews, often quarterly or half-yearly, where the achievement of set goals is assessed, problems and challenges are discussed, and if necessary, corrective action is taken where the employee is not performing as expected.

### **8.6.3 Work and job design**

In the modern world of mass production and mechanisation the outcome has resulted in job simplification with the variety and difficulty of tasks being performed by employees reduced in many instances, which is often accompanied by boredom and demotivation. Job and work design comprises assigning goals and responsibilities to employees in order to improve motivation and productivity (Daft, Murphy and Willmot, 2010).

Hackman and Oldham's (1976) job-characteristics model states that employee motivation, job satisfaction and performance are influenced by experiencing meaningful work as illustrated in Figure 8.4 below.



**Figure 8.4** Hackman and Oldham's job characteristics model.  
Source: Hackman and Oldham (1976:256)

The five *core job dimensions* determine any job's motivational potential, namely:

- skill variety – the degree to which a job requires a variety of challenging skills and abilities
- task identity – the degree to which a job requires completion of a whole and identifiable piece of work
- task significance – the degree to which the job has a perceivable impact on the lives of others, either within the organisation or the world at large
- autonomy – the degree to which the job gives the worker freedom and independence in scheduling work and determining how the work will be carried out
- feedback – the degree to which the worker gets information about the effectiveness of his/her efforts, either directly from the work itself or from others.

The greater the extent each of the core job dimensions are present in a job, the greater the level of the employee's motivation, satisfaction and the quality of his/her output. Arnold and House (1980, p.162) provide the following formula by which the motivating potential score (MPS) of a job can be calculated:

$$\text{MPS} = \left[ \frac{\text{Skill variety} + \text{Task identity} + \text{Task significance}}{3} \right] \times \text{Autonomy} \times \text{Feedback}.$$

Hackman and Oldham (1976) conclude that the degree to which the different job dimensions are present in a job will influence three *critical psychological states* in that:

- the degree to which the employee experiences work as meaningful is influenced by the skill variety, task identity and task significance
- the level of autonomy in the job impacts the degree to which the individual experiences responsibility for the outcomes of the job
- the amount and quality of feedback influences the employee's knowledge of the results of their work activities.

The combination of the core job dimensions and critical psychological states experienced by the employee result in five possible positive *personal* and *work outcomes* for the individual and the organisation, namely:

- high internal work motivation
- high quality work performance
- high levels of satisfaction with the work
- low levels of absenteeism
- low levels of turnover.

There are a number of possible strategies in designing jobs in order to improve the levels of the core job dimensions identified by Hackman and Oldham (1976) which include job rotation, job enlargement, job enrichment, and creating semi-autonomous work-teams:

- *Job rotation* involves allowing employees to work in a variety of different jobs in the organisation. Advantages include the fact that the employee gains experience and skills, does not become bored by constantly performing the same tasks, and the employee's feeling of being valued and invested in by the organisation increases (Kiley, 2011a).
- Alternately *job enlargement* involves adding similar tasks at the same level of difficulty and responsibility to a job. Employees are cross-trained to perform a number of tasks with the same level of difficulty. While this could counteract boredom, employees may experience this as an increase in workload which can have a demotivating effect.
- *Job enrichment* involves giving the employee tasks that are more complex and carry a greater level of responsibility and authority. This facilitates the development of an employee as well as improving his or her employment

prospects. The aim is to maximise both the challenge and interest of the work by creating jobs that have three characteristics, namely:

- Creating a complete piece of work, in the sense that the employee is involved in a complete set of tasks that result in a definable product.
- The employee is afforded as wide a scope in decision-making responsibility, variety and control as possible.
- The employee receives direct feedback through the work itself on how well the job is being performed (Armstrong, 2009).

In both the cases of job enlargement and job enrichment employees may expect increased remuneration. Should this not happen, the strategies may have the opposite effect and employees may become demotivated (Kiley, 2012).

Creating *semi-autonomous work groups* or self-managing teams is a more recent approach to job design (Arnold et al., 2005). This involves groups of employees tasked together with the autonomy, resources and authority necessary to accomplish them on their own. With minimal management involvement, the key role of management is to define the overall goal for the team. The team is then responsible for assigning responsibilities and work schedules.

## 8.7 INTRINSIC SOURCES OF MOTIVATION

Intrinsic sources of motivation refer to behaviours that are a reward in themselves, as they result in feelings of satisfaction, achievement and accomplishment: “People are said to be intrinsically motivated when they engage in an activity for the sake of their own interest, the challenge, or sheer enjoyment” (Kassin, 2006, p.503). At least two current concepts in psychology which describe internal motivation are flow and engagement.

*Flow* (or flow experiences), first studied by Csikszentmihalyi in 1990, refers to a person’s optimal experience or sheer enjoyment of and absorption in work and the processes involved in executing activities in order to complete tasks and achieve certain objectives (Eisenberger, Jones, Stinglhamber, Shanock and Randall, 2005). *Engagement* comprises more than just involvement, and refers to employees who feel a passionate involvement with their work and workplaces, or with working towards achieving goals (Kahn, 1992; Luthans and Peterson, 2002). A good example would be the difference between an employee performing a job that he/she is passionate about as opposed to simply performing a job to get by.

A number of concepts found in positive psychology (that relates to intrinsic

dispositions or resources) are important as they relate to the individual's ability to adapt to challenging circumstances (Masten and Reed, 2002). Positive psychology emphasises the positive resources which motivate people to be resilient and function optimally. Similar concepts are used to emphasise the positive resources in optimal organisational functioning. Some of these concepts are sense of coherence, hardiness, learned resourcefulness, and positive emotions like happiness, humour and optimism (see [Chapter 19](#)).

The first three theories that follow, namely Maslow's hierarchy of needs, Alderfer's ERG theory and McClelland's needs theory predominantly focus on intrinsic sources of motivation. However they also address extrinsic sources to some extent. The last four, expectancy theory, equity theory, self-efficacy and cognitive evaluations focus on internal cognitive processes involved in the assessment of motivational stimuli.



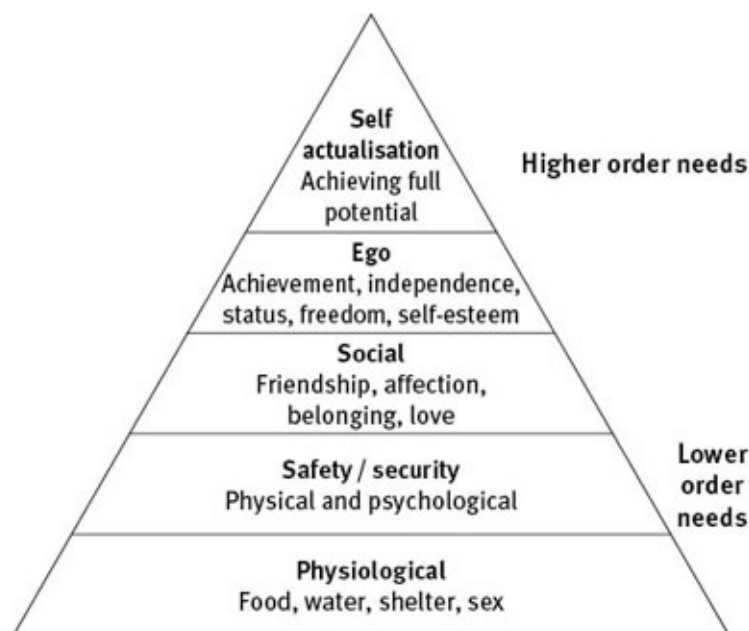
**Figure 8.5** A student driven intrinsically to complete her studies.

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### 8.7.1 Maslow's hierarchy of needs

Abraham Maslow's hierarchy of needs is probably the most widely publicised of all theories of motivation (Montana and Charnov, 2008). Maslow was an

American psychologist who developed his theory of human motivation during the Great Depression in the 1930s. The theory is based on conclusions he arrived at from working with people who came to him for assistance in dealing with difficulties that they were experiencing in their personal lives (Latham, 2007). The model is known as a *need hierarchy* in that it proposes that people are motivated by needs that are hierarchical in nature, that is, needs at the bottom of the hierarchy must be satisfied before those higher up can be fulfilled. Maslow's focus was on the factors beyond the most basic survival needs that drive human behaviour (Gorman, 2004, p.58). The different need levels are shown in Figure 8.6 below.



**Figure 8.6** Maslow's hierarchy of needs  
Source: Maslow, Abraham H., Frager, Robert D., Fadiman, James, *Motivation and personality*, 3rd ed., © 1987. Printed and electronically reproduced by permission of Pearson Education, Inc., Upper Saddle River, New Jersey.

Lower-order needs are referred to as such because they are the same as the needs of animals:

- Physiological needs are related to staying alive (the needs for food, water and shelter) and procreating (the need for sex). These needs are experienced through physical drives, such as hunger or thirst.
- Safety/security needs relate to physical safety (for example, jumping out the way of a car) and psychological security (for example, taking a steady job).
- Social needs relate to interaction and being with others (Kiley, 2011a).

Higher-order needs are unique to humans because of their more highly developed brains:

- Ego needs relate to people's desire for recognition of both their achievements and of the fact that they are unique individuals. These needs can be met through praise, recognition and actions that enhance social status.
- Self-actualisation needs are an individual's desires to achieve one's full potential (Kiley, 2011a).

*Self-actualisation* can be defined as "the desire for self-fulfilment, namely, the tendency for him to become actualized in what he is potentially" (Maslow in Latham, 2007, p.31). Personality characteristics Maslow associated with becoming self-actualised include (Gorman, 2004, p.59):

- a greater understanding of new and uncertain life situations
- the ability to react to changing circumstances
- the acceptance of yourself and others for what they are
- the ability to question existing norms, whilst not being deliberately unconventional
- a concern for the welfare of others
- the ability to develop interpersonal relationships that are satisfying
- being highly creative
- having sound moral and ethical standards
- a good sense of humour.

Gorman notes that there are four important assumptions that underlie Maslow's theory, namely that (Gorman, 2004):

- needs lower in the hierarchy need to be fulfilled before those higher up can be fulfilled
- although these needs are present in all humans at all times, they are also linked to development with different needs dominating at different stages, for example, babies and some new job entrants are more concerned with basic needs, whilst older persons are often more concerned with becoming self-actualised (Kiley, 2011a)
- needs lower in the hierarchy are predominantly based on physiology, whilst those higher up are more closely related to life experience
- personality differences may explain why some are capable of achieving more than others.

Maslow's model is still used widely today. However, it has been criticised as being simplistic, and later theorists have argued that lower-order needs do not

always need to be satisfied before higher-order needs can be fulfilled (Kiley, 2012). An example of a theorist that opposed the idea that needs had to be fulfilled in a hierarchical manner was that of Clayton Alderfer.

### 8.7.2 Alderfer's ERG theory

Clayton Alderfer (1972) proposed his ERG theory in order to address some of the limitations of Maslow's theory. ERG represent three levels of needs, namely:

- *existence*, which includes all material and physical desires which are required to survive
- *relatedness*, which involves the need to have relationships in which feelings and thoughts are shared
- *growth*, or the need to be productive and change oneself and the environment. An individual satisfies this need by using and developing his/her abilities.

ERG theory differed from Maslow's theory in three important ways, namely that it postulated that:

- different levels of needs could be perused simultaneously with modern individuals being motivated to satisfy both existence and growth needs simultaneously
- the order of needs could be different for different individuals
- including of the frustration-regression principle means that if a higher level of motivation remains unfulfilled, the individual may regress to a lower level.

ERG theory has important implications for managers within organisations in that they need to acknowledge that employees have diverse needs that need to be satisfied, and should an employee be frustrated in achieving growth needs he/she may regress to relatedness needs.

### 8.7.3 McClelland's needs theory

David McClelland's (1967) theory holds that people have needs that are socially learnt throughout people's interactions with others such as family, friends and persons that are respected and looked up to. His theory asserts that humans work to fulfil three basic internal needs that influence behaviour, namely:

- the *need for affiliation* (NAff), as McClelland (1967, p.346) states, "People clearly like interacting with other people, and some like it more than other."
- the *need for achievement* (NAch), which is characterised by the desire to achieve goals as effectively as possible
- the *need for power* (NPow), which is the desire to control and influence

others. A distinction is made between *personalised power*, which involves exploiting and manipulating others, and the more positive *socialised power* channelled towards the improvement of the organisation and society at large.

These needs become arranged in a hierarchy that differs from individual to individual. In other words, one need is more dominant than the others in each individual. An example of this is that McClelland (1967) asserts that effective managers need to have fairly high N<sub>Ach</sub> and N<sub>Pow</sub> and comparatively lower N<sub>Aff</sub>.

The N<sub>Ach</sub> is the most widely discussed and researched of these needs. Koestner and McClelland (in Hodson, 2001) suggest that societies in which the N<sub>Ach</sub> is dominant have higher levels of productivity. People with high N<sub>Ach</sub> tend to:

- set achievable goals for themselves
- seek to master tasks and gain a great deal of satisfaction from their achievements
- consistently strive to improve themselves
- have a strong sense of initiative
- enjoy assuming personal responsibility for tasks
- place value on both personal and organisational growth.

Needs theories require I-O psychologists to be aware of differences between individuals and groups and to adapt motivational strategies accordingly. Examples are considering employee needs when appointing employees, training and developing them, setting goals in performance management, structuring remuneration, deciding on promotions, job design and management style. However, most employees also tend to regulate their work behaviour and set goals for themselves, which is the topic of the next section.

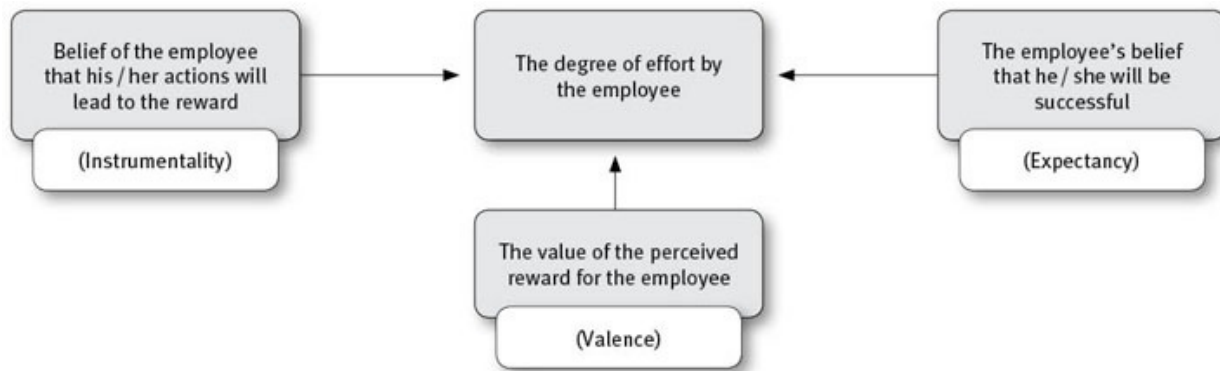
#### **8.7.4 Expectancy theory**

Victor Vroom formulated the expectancy theory which is based on the idea that people are rational beings who analyse the costs and benefits of possible behaviours (Kassin, 2006). The core rationale of the theory is that individuals will put in the greatest amount of effort when they expect their behaviours will lead to performance that will in turn be rewarded (Du Brin, 2009). Employees are thus motivated by the expected results of their actions, which comprise three elements, namely (Mullins, 2005):

- *valence*, which is the degree of satisfaction that an employee anticipates

he/she will receive from a particular outcome

- *instrumentality*, which refers to the belief of the employee that his/her actions will lead to the desired outcome
- *expectancy*, or the probability that the outcome will be achieved.



**Figure 8.7** Motivation and expectancy.  
Source: Adapted from Kiley (2012: 119)

The three key questions posed by an employee when deciding on a particular course of action are:

- *Does how hard employees try really affect their performance?* (effort). In order to have a motivational effect, the employee must believe that their personal effort will influence the success or failure of a task.
- *Are personal consequences linked to employee performance?* (instrumentality). In order to be motivated, the employee must experience a direct link between rewards or punishment and their effort.
- *Does the employee value the consequences?* (valence). The employee has to value the consequences of his /her behaviour (Cook and Hunsacker, 2001).

### 8.7.5 Equity theory

Fairness is the cornerstone of equity theory, which was developed by J. Stacy Adams (in Daft and Marcic, 2011). The focus is that employees continually compare the fairness of their treatment with others. Equity theory holds that people hold the belief that they should receive the same or similar rewards as those doing the same or a similar job, under the same or similar circumstances. Employees compare the rewards that they receive in the form of recognition, status, benefits, money, promotion and allocation of job tasks with the amount of

effort that they expend.

Employees also make *external comparisons*, whereby they compare their effort-performance-reward ratios to others doing comparable work. These comparisons can be made on three levels, namely (Cook and Hunsacker, 2001):

- *comparisons with other specific individuals*, such as colleagues or friends
- *comparisons with reference groups*, for example, the employee comparing his/her department with a similar department in the organisation
- *comparisons with general occupational classifications*, whereby an employee may compare him-/herself with people performing the same or similar jobs in other organisations.

If an employee perceives that he/she is being treated inequitably to others they may adopt a number of approaches to reduce this inequity, including (Daft and Marcic, 2011):

- *Change work effort*: An employee can reduce the amount of effort they put into their work, for example, if they feel they are being under paid they may reduce their productivity or increase their levels of absenteeism.
- *Change outcomes*: An employee can change the outcomes by negotiating with management or by simply pointing out the inequity which management may be unaware of.
- *Change perceptions*: If the employee is unable to change his/her level of inputs or the outcomes of the job, he/she may change the way in which the other persons' rewards are perceived.
- *Leave the job*: The employee may decide to leave the job if he/she experiences the inequity as too extreme. However, this will largely depend on there being opportunities available that are perceived as being more equitable.



**Figure 8.8** Employees compare themselves with others.

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The key implication of equity theory is that managers need to be aware of the fact that employees continuously monitor the fairness of their decisions and actions and will act according to their perceptions of these.

### **8.7.6 Self-efficacy**

According to Bandura, “People strive to exercise control over events that affect their lives” (1995, p.1). A person’s beliefs about how competent they are have a major impact on their levels of internal motivation. *Self-efficacy* refers to “the individual’s estimate of his or her own ability to perform a specific task in a particular situation” (Hellriegel and Slocum, 2003, p.113). Persons with high levels of self-efficacy believe, firstly, that they have the necessary abilities, secondly, that they are resourceful enough, in that they can summon the necessary effort and energy that is required, and, thirdly, that they can overcome any obstacles in the environment that may hinder their ability to achieve their goals. Conversely, individuals who have low self-efficacy believe that it does not matter how hard they try, as they believe they do not have the necessary skills or abilities to be successful.

There are four ways in which an individual’s belief about their efficacy can be improved, namely (Bandura, 1995):

- through *mastery experiences*, that is, providing the individual with tasks that challenge him/her and thus require a certain amount of effort to be successful
- through *vicarious experiences* created by social models which is more effective if the models are perceived as similar to the individual
- through *social persuasion* with an individual who is persuaded verbally that he/she has the capabilities to succeed at a task being more likely to be successful
- through *enhancing physical status* by reducing stress and helping the individual to correctly interpret physical states.

Self-efficacy theory is developed further with cognitive evaluation theory, which, in a sense, looks at the aspects that impact on these perceptions.

### 8.7.7 Cognitive evaluations

*Cognitive evaluation theory* was first proposed by Edward Deci in 1975. The theory argues that it is not the objective characteristics of an event that determine its motivational value, but instead the psychological meaning, that is, how people perceive and interpret events and stimuli to attach meaning to it (Deci and Ryan, 1985). In this regard, some of the previous concepts, for example, expectation, self-efficacy and equity also include peoples' perceptions and cognitive evaluations.

Cognitive evaluation theory is presented as four propositions:

- If an external event is perceived to have been caused by something out of an individual's control, it undermines intrinsic motivation, whereas if the individual believes this event is under his/her control it tends to enhance motivation. For example, if people believe they are studying because of pressure from their parents, they will tend to be less self-motivated. However, if they study to improve their career prospects, they will be more motivated.
- External events affect motivation in that those events that enhance people's perceived competence, enhance their intrinsic motivation, and vice versa. For example, if employees do well on a work task they would be more motivated, as they believe they are competent employees. Events that influence or regulate behaviour have two aspects that hold different degrees of importance to the same person at different times, or may be important to different people. *Informational aspects* impact positively on one's internal locus of control and perceived competence, and thus enhance internal motivation. On the other hand, the *controlling aspect*, or the degree by which an individual believes

that he/she is being controlled by external events, leads to either externally driven compliance or defiance, which impacts negatively on internal levels of motivation.

- The *demotivating aspect* promotes perceived incompetence, which undermines perceived competence. The relative subjective importance of each of these aspects will determine how much an event influences a person's level of motivation. An example is a student who performs poorly (informational aspect), believes that the lecturer is hostile towards him/her and thus has no control over his/her performance (controlling aspect). This student, therefore, believes that he/she does not have the competence to perform in the subject (demotivating aspect). By contrast, another student who also performed badly discovers that most students perform poorly in the first test (informational aspect), discovers copies of previous test papers in the library (control aspect) and is thus motivated to perform better in upcoming tests (motivating aspect).
- Intrapersonal events differ in how significant they are for the person who experiences them and thus how much impact they have. A distinction is made between internally controlling events that drive a person towards a specific outcome and a-motivating events that demotivate the individual. Thus, one student perceives the disappointment of not passing a test as particularly demotivating and gives up his/her studies, as he/she feels that he/she has little control over things and cannot make a difference. The second student simply perceives the same event as a setback that must be overcome because he/she believes that he/she has the ability to perform better in the future (Kiley, 2011).

Therefore, one's beliefs about oneself and events influence to what degree one is internally motivated. At the same time, the management of an organisation also has a significant impact on the environment in which an individual operates and can have a powerful influence on how employees perceive events within the organisation.

*Attribution* can also be a motivating force. According to Kowalski and Westen (2011), attribution refers to the cognitive processes of inferring the causes of one's own and others' mental states and behaviours, often more so in social interaction. When people experience feedback on how they attribute certain causes to their own and other peoples' behaviour, this will influence future motivation and behaviour in certain ways. This phenomenon and its influence on human perception and behaviour is discussed in full in [Chapter 6](#).

### 8.7.8 Unconscious motivation

According to classic psychodynamic perspectives, much of human behaviour can be related to unconscious motivation, because some psychic content and experiences are repressed to the unconscious psyche, from where it may influence expressed behaviours. Sigmund Freud initially postulated sexual drives or motives (desires for love, lust and intimacy) and aggressive drives (aggression, control and power) as important motivators of human behaviour. These are still important, but in current psychodynamic theory two other motives or drives have been postulated, that is, the need for relatedness to others and the need for self-esteem. The abstract concept of drives also has been redefined to rather refer to wishes and fears, which are desired or undesired states associated with emotion or arousal which can influence behaviour (Kowalski and Westen, 2011). Another more recent emphasis from cognitive perspectives and crossing lines with psychodynamic ideas, is the concept of *implicit motives* which refer to a form of unconscious motivation. Implicit motives (for example, innate needs for mastery and challenges in people) refer to behaviours which, through evolution, became ingrained in peoples' memory, attitudes and how people behave without being consciously aware of these underlying motives. Implicit motives may influence peoples' behaviour in various and similar situations without them being consciously aware of it.

## 8.8 APPLYING MOTIVATIONAL THEORIES IN PRACTICE IN THE ORGANISATION

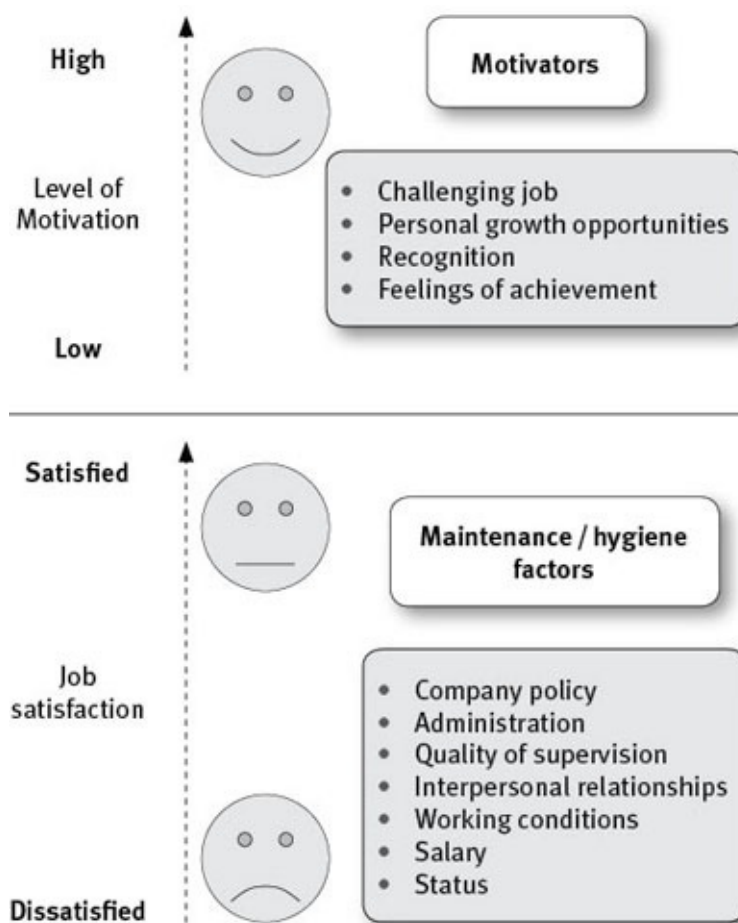
In previous sections various applications of motivational concepts have been suggested, for example, goal setting and job enrichment. However, the following two applications are indicated in somewhat more detail.

### 8.8.1 Herzberg's two factor theory

Frederick Herzberg's (1968) theory of motivation asserts that all work-related factors can be grouped into one of two categories, namely hygiene/maintenance factors and motivation factors. Herzberg claims that hygiene factors stem from a person's "animal nature – the built-in drive to avoid pain from the environment, plus all the learned drives which became conditioned to the basic biological needs". Motivational factors (or motivators) "relate to the unique human characteristic, the ability to achieve and, through achievement, to experience psychological growth" (Herzberg, 1968, p.57). Hygiene factors are those factors,

mostly from the work environment, that if present, do not necessarily improve work performance, however, if absent, will mostly cause dissatisfaction.

As illustrated in Figure 8.9 below, inadequate hygiene factors in an organisation will demotivate employees. The fact that an organisation has a fair company policy, pays its employees on time and provides employees with adequate resources to perform their jobs, will not make them particularly happy. However, they are likely to be unhappy and even protest and strike if these factors are not present. What Herzberg (1968) referred to as motivators, for example, a challenging and stimulating job and opportunities for promotion, are much more likely to drive employees to higher levels of performance.



**Figure 8.9** Herzberg's two factor theory of motivation.  
Source: Kiley (2012: 125)

## 8.8.2 Quality of work life

The Quality of Work Life (QWL) approach, also known as Theory Z, is an approach to management and motivation that is founded within Japanese historical and cultural experiences (Montana and Charnov, 2008). Rather than a specific theory, QWL is a practical approach to motivation through which a number of researchers and theorists have attempted to identify the factors that influence feelings of well-being and satisfaction amongst employees (Kiley, 2012). These approaches can be divided into two broad categories (Steenkamp and Van Schoor, 2002):

- the *environmental sculpting approach* which predominantly focuses on maintaining a healthy physical work environment
- the *job sculpting approach* focuses on individual needs and job design.

A number of factors that affect QWL in the workplace have been identified by researchers, including (Wayatt and Wah, 2001):

- *adequate and fair compensation* that meets the employee's needs and is perceived to be fair by the employee
- *challenging work* content that stimulates employees by using and developing their capacities
- the organisation providing *opportunities for personal growth* through training and development
- a *physical working environment* that is pleasant and attractive whilst being healthy and safe
- an overall emphasis on *employee welfare* in that the employees feel nurtured and cared for
- a culture that cultivates *personal identity, equal treatment, a sense of belonging* and *upward mobility*
- a *democratic work environment* in which employees have a say about the factors that impact upon them, and in which their inputs are used and valued
- an absence of unnecessary *stress factors* in the workplace
- opportunities for *mobility* both upwards, in the form of promotions, and laterally between different jobs and departments
- *healthy social and interpersonal relations* that should be encouraged and developed
- a fair degree of *job security* for employees
- a work environment that does not infringe excessively on the personal and *family needs* of the employee and provides adequate leisure time.

## 8.9 THE ROLE OF MOTIVATION IN EMOTION

Many theorists have maintained that emotions are the primary source of human motivation (Izard, 1977). Emotions are the feeling aspect of consciousness. Emotions are characterised by a level of physical arousal that may be translated into behaviour that communicates these feelings to the outside world. According to Lefton and Brannon, “The word *emotion* refers to a wide range of subjective states, such as love, fear, sadness, and anger” (2006, p.440). Lazarus (in Lane, 2007, p.7) offers a more comprehensive description in that he defines emotions as:

“an organized psycho-physiological reaction to ongoing relationships with the environment...what mediates emotions psychologically is an evaluation, referred to as an appraisal, of the personal significance for the well-being that a person attributes to this relationship (... relational meaning), and the process.”

Emotions regulate, influence and even organise human behaviour (Kiley, 2011a). Subconscious emotions mediate people’s attitudes, thinking and motivations. Emotions transform a person’s perceptions and experiences of products and services, and can build associations with brands that people use or buy. In short, emotions influence people’s disposition or internal orientations to do or not do things (Hallward, 2004).



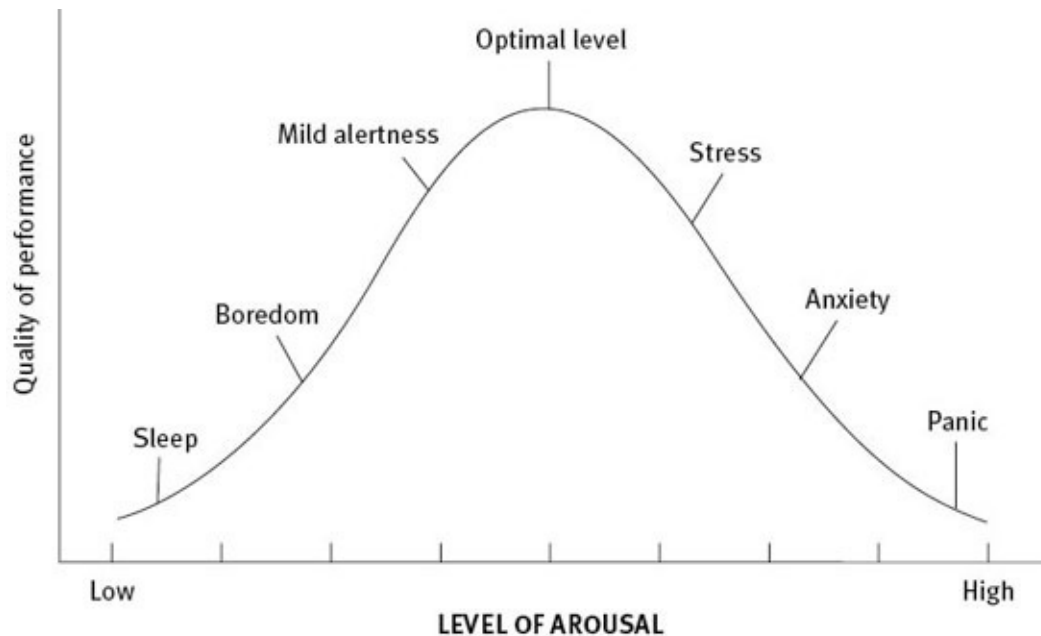
**Figure 8.10** Art can evoke powerful emotions.

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In the most basic sense, an emotion is assessed in terms of being positive or negative, in that it leads us to either approach or avoid someone or something. People decide if something is good or bad on the basis of their value system. This is based on experience, memories, instincts and cognitive evaluation (Hallward, 2004).

Emotions drive people's behaviours. However, much of what seems to be important about emotions is internal and inherently private to people. Emotions may be experienced without any externally visible sign or obvious effect on behaviour (Hoyenga and Hoyenga, 1984). This has the function of preparing and motivating people to react in certain ways. Although people have some control in this process, this largely depends on previous experiences and personal attributes.

Emotion can impact both positively and negatively on performance in general and specifically in the workplace. Robert Yerkes and John Dodson formulated the Yerkes–Dodson law in 1908 which sets out the relationship between performance and arousal (Matthews, Davies, Westerman and Stammers, 2000). The law holds that performance increases with physiological or mental arousal, however, this is only up to the point when these become too high, after which performance starts to decrease (see Figure 8.11 below).



**Figure 8.11** The Yerkes-Dodson law.  
Source: <http://ceirepsych.wordpress.com/2012/10/24/assessment-b-eye-witness-testimony/>

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Each component in the emotion-generating process has an impact on human behaviour. How an emotion-generating event or stimuli is appraised, the type of reactions to this, the process of emotional regulation and control, as well as the final responses, all impact on the level of emotion of the individual.

## 8.10 MOOD, TEMPERAMENT AND THE EXPRESSION OF EMOTIONS

The notion of primary emotions, also known as basic emotions, dates back as far as René Descartes, the 15th century French philosopher who identified six primary passions (Lewis, 1992). Primary emotions are basic emotions

experienced by all social mammals and include fear, joy, anger, fear, disgust and sadness. Each type of emotion is evoked under certain circumstances and has certain motivational functions for the individual in his/her behaviour and reactions to stimuli and events as well as interpersonally, that is, other people will respond towards another person and related events in certain ways. Emotions and related behaviour are universal responses that cut across various cultures and they have distinctive physiological patterns and corresponding facial expressions (see Figure 8.12). Conversely, secondary emotions, comprise the various blends of emotions that tend to differ from culture to culture (Wade and Tavris, 2006). Secondary emotions are how we feel about emotions, for example, you may feel angry (primary emotion) with your friend as they disappointed you. However, you then feel guilty (secondary emotion) about feeling like this. The secondary emotion is largely determined by your culture's norms regarding the primary emotion.



**Figure 8.12**

Universally recognisable primary emotions.

Source: <http://blogs.psychcentral.com/angst-anxiety/2012/02/anger-and-fear/> Copyright © 1995-2013 Psych Central. All rights reserved

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Theodore Kemper (in Turner and Stets, 2005) argued that primary emotions are distinguished by five factors, namely that they:

- have an evolutionary survival value or function, for example, fear and anger enable the individual to deal with danger
- are present from very early stages of human development in that they are observed in infants
- are expressed in universally recognised facial expressions
- have unique autonomic responses
- emerge in the context of all social relations.

Emotions are often expressed, which means that they have a physiological component (for example, respiration, heart rate and body temperature), an expressive component (facial display), an experiential component (subjective feelings) and eventually a behavioural response, for example, hugging, kissing or even hitting someone (Fredrickson, 2001; Hallward, 2004).

The concepts of mood and *temperament* are central to the discussion of emotions. Temperament refers to:

“those dimensions of personality that are largely genetic or constitutional in origin, exist in most ages and most societies, show some consistency across situations, and are relatively stable, at least within the developmental eras”. (Plomin in McCall, 1986, p.17)

Temperament is thus a relatively stable and pervasive pattern of emotions that are exhibited by an individual or group of individuals. As Chess and Thomas (1996, p.3) state: “The temperamental profiles of infants, children, adolescents, and adults show specific individual behavioural characteristics”. In this context we can also refer to *emotional traits* which “refer to the tendency of the individual to experience a particular emotion with frequency in his day-to-day life” (Izard, 1977, p.5). The trait approaches to personality (see [Chapter 16](#)) explain emotionality in people through certain traits which characterise certain emotional behaviours in people, for example, being emotionally unstable (for example, hostility, anger and anxiety) to being emotionally stable (for example, relaxed, calm and contented).

On the other hand, *mood* is a generic term denoting general feelings that are the result of a specific situation (Kiley, 2011a). Lane and Terry (in Lane, 2007, p.7) define moods as “a set of feelings, ephemeral in nature, varying in intensity and duration, and usually involving more than one emotion”. Moods are thus generally shorter in duration and linked to a specific occurrence.

The ability to understand the emotions of others, or *empathy*, is a key human characteristic both in interpersonal relationships in general as well as in organisations, that is, being “capable of placing themselves in the role of the other” (Lane, 1992, p. 90). The term has its roots in the German word *eingefühlung*, which Theodore Lipps used to discuss in terms of how people responded emotionally to works of art. The translation of *ein* is “one”; *fühlung* means “feeling”. Therefore, empathy was first used as a reference to the state of oneness, whereby the receiver experiences the same emotions as the target (Omdahl, 1995). Lane (1992, p.89) notes that “...empathy is not only a form of knowledge, knowledge of what another may be feeling or thinking; it is also the actual feeling of the other’s feeling”. It is important that a manager has the ability to read and understand the emotions of his/her subordinates in order to manage them effectively.

## 8.11 EXPLANATIONS FOR EMOTION

Emotions are “the ‘glue’ binding people together and generating commitments to large-scale social and cultural structures” (Turner and Stets, 2005, p.1). How emotions are defined depend to some extent on the theory that is being applied. From the different theories it is clear that emotions have several components in that they are expressed through facial expressions, posture, touch, gestures and tone of voice. Physiological responses in the body and brain are involved; they involve specific action tendencies. Emotions are expressed through language; and our thoughts are collared and reasoning affected by emotion (Oatley, Keltner and Jenkins, 2006).

There are essentially four explanations of how emotions arise (Gorman, 2004, p.6):

- the view that *emotions begin as a subjective feeling*, such as fear or happiness, which then leads to physiological changes, such as increased heart rate, then followed by the appropriate behaviour
- the view that *emotions begin with physiological changes*, which, in turn, lead to subjective feeling
- the view that *subjective feelings and physiological changes occur simultaneously*
- the view that *emotions are the result of a complex interaction* between cognitive factors, the environment and the nervous system.

### 8.11.1 Physiological theories

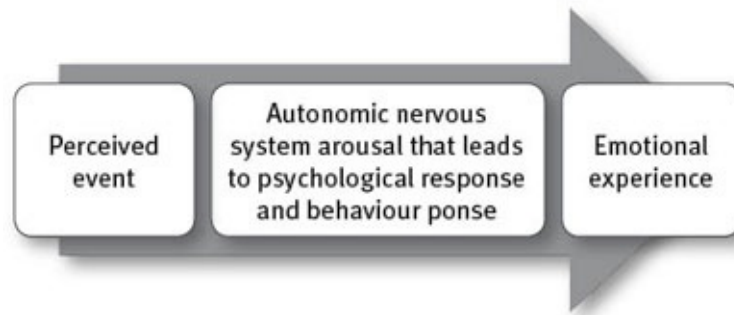
The basic premise of physiological theories of emotion is that all emotions, such as sadness, love, hate, anger and happiness, have a common physiological basis. According to these theories, emotions are predominantly controlled by the brain and expressed through the sympathetic and parasympathetic divisions of the autonomic nervous system (Lefton and Brannon, 2006).

The facial feedback hypothesis suggests that by their actions, facial movements can create emotions by giving feedback to the brain that suggests an emotional response (Lefton and Brannon, 2006, p.440).

#### **8.11.1.1 James-Lange theory**

In the 1880s, William James, an American psychologist, and Carl Lange, a Danish physiologist, simultaneously proposed one of the earliest theories of emotion. The James-Lange theory argues that “emotion is equal to the pattern of physiological arousal that the person experiences during the emotion” (Pastorino and Doyle-Portillo, 2009, p.363). They argue that an event in the environment leads to a physiological change which is then interpreted as an emotion. William James (1992, p.352) stated the following:

“My theory ... is that the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur is the emotion. Common sense says we lose our fortune, are sorry and weep; we meet a bear, are frightened and run; we are insulted by a rival, and get angry and strike. The hypothesis here to be defended says that this order of sequence is incorrect ... and that the more rational statement is that we feel sorry because we cry, angry because we strike, afraid because we tremble ... Without the bodily states following on the perception, the latter would be purely cognitive in form, pale, colorless, destitute of emotional warmth. We might then see the bear, and judge it best to run, receive the insult and deem it right to strike, but we should not actually feel afraid or angry.”



**Figure 8.13** The James-Lange theory of emotion.  
Source: Kiley (2011a: 217)

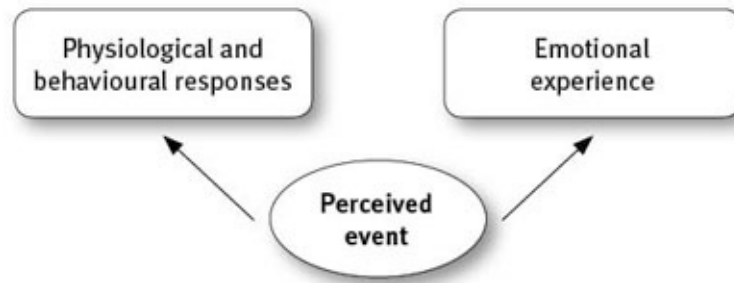
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Walter Cannon (1927) criticised the James-Lange theory on a number of levels, namely:

- People who experience different emotions may exhibit the same physiological state, such as crying when either happy or sad.
- Physiological changes are often too difficult to be noticed by the person having the experience to be used as cues.
- Emotions occur very quickly, whilst the physiological changes are often too slow to be a source of these. The question here would be whether you first cry and then feel sad, or do you first feel sad and then cry at times?
- Physiological arousal may occur without the experience of an emotion, such as during exercise when your heart rate increases with no accompanied emotional significance.

#### **8.11.1.2 Cannon-Bard theory**

In the 1930s, Walter Cannon and Phillip Bard made use of information about physiological structures not available to James and Lange. They proposed that emotion originates in the thalamus, the section of the brain that simultaneously relays messages from the sensory organs. The thalamus controls physiological arousal, the skeletal muscles, which control motor behaviour and the cerebral cortex, which controls conscious thought. The Cannon-Bard theory thus argues that the body and mind are activated independently in the experience of emotion.



**Figure 8.14** The emotional process according to the Cannon-Bard theory of emotion.  
Source: Kiley (2011:217)

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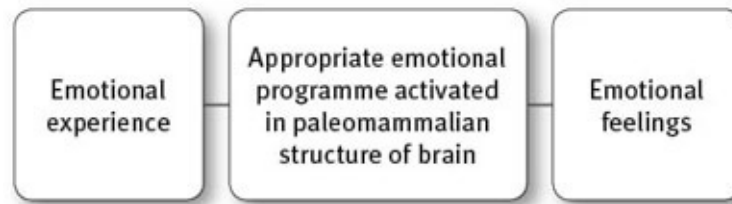
### 8.11.2 Emotions as a product of evolution

The roots of evolutionary approach lie in the writings of Charles Darwin. In 1871, Darwin published *The Descent of Man*, a book in which he claimed that emotional expressions are common to all cultures and, therefore, he argued that emotions are inherited, as opposed to learnt. He argued that emotions are elementary evidence of behaviours that have been handed down from our ancestors (Workman and Reader, 2004). Evolutionary psychologists argue that the mind was designed to solve problems encountered by our ancestors, and that emotions serve an adaptive purpose. In other words, emotions help people adapt to their environments and survive.

Evolutionary theorists thus believe emotions are essentially inborn reactions to certain stimuli that would be recognisable under most circumstances without much thought. They argue that emotions develop before thought and that thought plays a very small role in emotion, however, they do admit that learning cognition may play some role. They generally assume that emotions originate in the subcortical brain structures such as the hypothalamus and limbic system that evolved before the cortex and other higher brain structures that are responsible for complex mental activities (Weiten, 2008).

An important theory from this school of thought is the *theory of the triune brain* that was published by Paul MacLean in 1952. This theory argued that emotions are located in the primitive “paleomammalian” structures of the brain, whereas higher cognitive activities take place in the more recently evolved “neomammalian” structures (see Figure 8.15). Emotions are regarded as a collection of fail-safe mechanisms that are vital for survival. For example, fear enables us to comprehend danger, whilst affection and love ensure the survival

of the species through attraction (Stich and Warfield, 2003).



**Figure 8.15** MacLean's triune brain theory.  
Source: Kiley (2011:218)

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### 8.11.3 Cognitive appraisal theory

Theories based on cognitive appraisal argue that emotions are influenced by an individual's perception of a situation in terms of how familiar the situation is, the extent to which they believe they are able to control this, and the degree to which they can predict the outcome of the situation (Weiten, 2008). In other words, cognitive appraisal theorists attempt to formulate how cognitive judgements cause people to experience different emotional states (Cropanzano, Weiss, Suckow and Grandey, 2000).

The basic thinking behind this theory can be illustrated through an example of two people on a roller coaster at a funfair. The one person has been on many roller coasters including this particular one a number of occasions, whilst the second person has never been on a roller coaster before. Both experience the same levels and types of physiological arousal, however, due to their cognitive interpretations one may interpret this arousal as fear, and the other may interpret it as excitement.

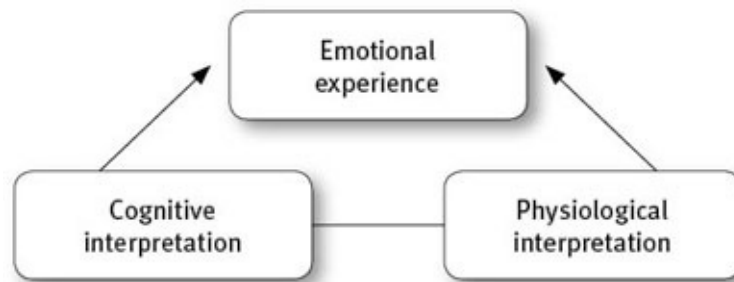
Schachter and Singer's two factor theory as well as the theories of Arnold and Lazarus discussed below are important examples of theories that form part of the cognitive appraisal school of thought.

#### 8.11.3.1 The two factor theory of emotion

The experimental psychologists Stanley Schachter and Jerome Singer were two of the pioneering theorists to propose a cognitive theory of emotion (Scherer, 2001). Schachter and Singer's (1962) theory claims that emotional states are a function of two factors, namely physiological arousal and a cognition (thought) that is appropriate to this arousal. There are three basic premises that underlie

this theory:

- Given a state of physiological arousal for which an individual has no immediate explanation, the person will label this state and describe his/her feelings in terms of the cognitions available to him/her. To the extent that cognitive factors are potent determiners of emotional states, it should be anticipated that precisely the same state of physiological arousal could be labelled “joy” or “fury” or “jealousy” – or any of a great diversity of emotional labels, depending on the cognitive aspects of the situation.
- Given a state of physiological arousal for which an individual has a completely appropriate explanation, no evaluative needs will arise, and the individual is unlikely to label the feelings in terms of the alternative cognitions available.
- Given the same cognitive circumstances, the individual will react emotionally or describe his /her feelings as emotions only to the extent that he or she experiences a state of physiological arousal (Schachter and Singer, 1962, p.398).



**Figure 8.16** The emotional process according to Schachter and Singer's two factor theory of emotion.  
Source: Kiley (2011:218)

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Schachter and Singer (1962) conducted a very important, if somewhat controversial, experiment to illustrate how emotion emanates from a state of arousal and how they proceed to create the best explanation for a particular situation.

They gathered a group of volunteers (consisting of 184 college students), who were told that they were participants in a study of a vitamin supplement trial called Suproxin. However, what they were really injected with was either the drug epinephrine or a placebo (that is, a phony or simulated intervention that has no medical effect). Epinephrine, also known as adrenaline, is released by our hormonal system whenever we face a stressful situation. It leads to physiological

arousal in the form of increased blood pressure, heart rate and respiration.

The rationale was that once the epinephrine began to take effect, the subjects would begin to search for the cause of their arousal. Some of the epinephrine-injected subjects were told that even though the drug was not harmful, they may expect some common side effects, such as feeling flushed, shaking hands and pounding hearts. A second group of subjects were given no information at all about the effects of the drug. Those subjects who had been informed that the drug would arouse them, should have assumed that the drug was causing their hands to shake and their heart to pound. However, it was assumed that the subjects who were not warned about the drug's effects, would be more likely to interpret their arousal as an emotion.

Schachter and Singer believed that the type of emotion the subjects experienced would depend on the available situational cues. To test this idea, they manipulated this variable by arranging for their subjects to wait for the drug's effects in a small room together with another person, who was their confederate. The confederate was trained to behave in either a euphoric (that is, excited) or angry manner. The euphoric confederate clowned around during the 20 minutes doing things like doodling on scratch paper, playing a game of basketball with balls of paper, making and flying a paper plane, building a tower out of file folders, and playing with a hula hoop. In contrast, the "angry" confederate became increasingly agitated during the 20 minutes. The subjects were required to complete questionnaires that contained very personal questions. Whilst completing the questionnaires, the confederate loudly criticised questions that requested information about childhood diseases, father's income, family members' bathing habits and psychiatric adjustment. Finally, the confederate flew into a rage at the question "How many times each week do you have sexual intercourse?"

Each subject's actions were observed and coded, and they were also asked to describe their emotional state. As predicted, the physiologically aroused subjects who had not been informed about the drug's side effects responded with emotions that matched the confederate's actions. They either felt happy when their fellow subject was happy, or angry when their fellow subject was angry. By contrast, the subjects who had been forewarned, as well as the unaroused subjects who had received the placebo, did not display any pronounced emotion.

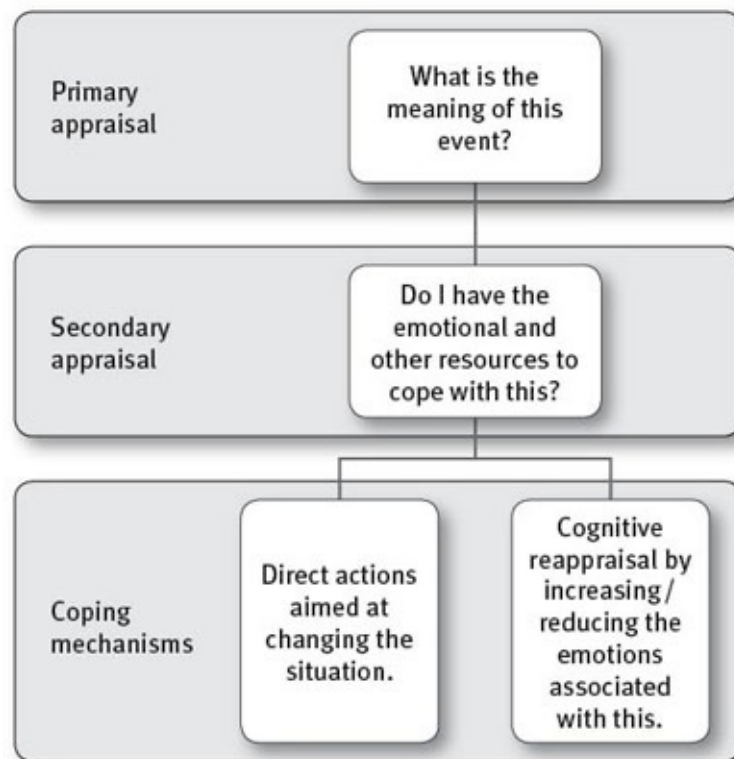
### **8.11.3.2 Arnold and Lazarus's theories**

In 1960 Magda Arnold published her *excitatory theory of emotion* which defined

emotions as “a felt tendency towards anything appraised as good, and away from anything appraised as bad” (Schorr, 2001, p.21). She argued that the initial appraisal started the sequence and aroused both the appropriate actions together with the emotional experience itself. The physiological changes accompany the emotions, but are not responsible for these emotions.

Magda Arnold suggested that emotions involve a process of initial appraisals (primary appraisals) and reappraisals (secondary appraisals) that often change and correct the initial impressions, with the consequence that the resulting emotion also changes (Scherer, 2001). Richard Lazarus’s *cognitive-meditational theory* sees emotions as being “constantly in a state of flux,” as emotional reactions are affected by the interaction between emotion-eliciting conditions and coping processes. Lazarus identified two major types of appraisals (see Figure 8.17), namely:

- primary appraisal, which aims to establish the significance or meaning of the event to the person
- secondary appraisal, by which the person judges his/her ability to cope with the event.



**Figure 8.17** Lazarus's cognitive-meditational theory.  
Source: Kiley (2011:220)

He argued that there were two types of coping processes, including direct actions aimed at changing the relationship with the environment, and cognitive reappraisal processes, which allow emotional reactions to be either aroused or reduced (Lazarus, 2001).

To gain a better understanding of the approaches followed by the different theorists, it is useful to take into account the period in history when each theory was written, as the knowledge and available scientific methods at the time had a major impact on the idea of the theorists. Table 8.1 provides a summary of the different theories and illustrates the major similarities and differences between them.

**Table 8.1** Comparison of the different theories of emotion

Theory	Main theorists	Role of physiology	Role of cognition	Role of the situation
Physiological theories				
James-Lange theory	William James (1884) and Carl Lange (1922)	You become physiologically aroused and then interpret the events associated with this.	Bodily arousal is interpreted as emotion.	Not relevant.
Cannon-Bard theory	Walter Cannon (1871–1945) and Phillip Bard (1898–1977) (1960s)	Physiological arousal and its interpretation occur simultaneously.	Physiological arousals are given meaning through cognition that occurs simultaneously.	Not relevant.
Evolutionary theories				
	Charles Darwin (1871)	Emotions are inherited and contained in primitive brain structures.	Higher cognitive structures play little or no role.	Emotions are inherited survival mechanisms that help the individual survive particular situations.
	Paul MacLean (1952)	Emotions are located in the primitive “paleomammalian” structures of the brain.	Higher cognitive activities take place in the more recently evolved “neomammalian” structures.	Appropriate emotional programmes are brought forward by a particular situation.
Cognitive theories				

Two factory theory	Schacter and Singer (1962)	Physiological arousal is only regarded as an emotion when interpreted cognitively.	The cognitive label determines what emotion is experienced.	The situation is the key factor that determines how the physiological arousal is interpreted.
Cognitive appraisal	Magda Arnold and Richard Lazarus (1960s)	Cognition is more important than the physiological arousal.	Emotions are affected by the cognitive appraisal of the situation.	A situation needs to be appraised before emotions are experienced.

Source: Kiley (2011a:221)

## 8.12 CULTURE AND EMOTION

Words are the key manner through which emotions are expressed (Scherer, 2001), and these are closely linked to many aspects of culture (see [Chapter 9](#)) providing the main support for many social norms. For example, we are passionate about aspects of our culture (Kiley, 2001a). However, all cultures are not necessarily equally prone to perceive and talk about a particular type of emotion. An example of this is from the study of Levy (in Scherer, 2001) who found that Tahitian islanders had few words to express sadness-related emotions. However, they had a much more extensive vocabulary to express other emotions such as anger. It is not that an emotion does not exist within a culture, but rather that not all cultures recognise or conceptualise the same emotions, and when an emotion is linked to a social norm in a particular culture, it will result in either more or less frequent occurrence of that emotion in the particular culture (Elster, 2000). Examples of emotions that are unique to particular cultures are illustrated in Table 8.2 below.

**Table 8.2** Examples of cultural-specific emotions

Culture	Emotion	Definition
Czech	Litlost	Combination of grief, sympathy, remorse and longing.
Germany	Schadenfreude	A feeling of malicious joy at another's misfortune (also true in other cultures).
Japan	Hagai Amae Amaeru	Helpless anguish tinged with frustration. The way an infant feels for his mother. To presume upon another's love.
Malaysia	Marah	Offended and resentful response is of a muted, restrained

Malaysia	Malay	Offended and resentful, response is of a muted, restrained nature.
Poland	T skni (verb) T sknota (noun)	Homesick, missing, longing, or nostalgic.
Tahiti	Mehameha	A sense of the uncanny.

Source: Based on Wade and Tavis (2006, 2009); Goddard (2011)

A study by Dzokoto (2010) identified interesting cultural differences in emotions in that she found that Ghanaian participants paid more attention to their bodies and less to emotions than American participants, whilst Guerts (2002) observed that the Anlo people of west Africa have a sensation related word, *seselaelame*, best translated as “feel-feel-at-flesh-inside”, which refers to a culturally elaborated way of simultaneously attending to one’s body, and orienting to objects and the environment.

In a study of five African nations including South Africa, Ghana, Nigeria, Tanzania and Zimbabwe, Kim-Prie and Eid (2004) discovered that the more collectivistic African nations found guilt more desirable and pride less desirable than the less collectivistic African nations, whilst Africa-specific norms for emotions included a large class of people who found all negative emotions undesirable.

## 8.13 EMOTIONAL INTELLIGENCE

The success of an individual is not only impacted upon by his/her intelligence (see [Chapter 7](#)), but largely by how effectively he/she manages their emotions. *Emotional intelligence* (EI) refers to “the ability to monitor one’s own and others’ feelings and emotions, to discriminate amongst them, and to use this information to guide one’s thinking and actions” (Emmerling, Shanwal and Mandal, 2007, p.vii). Emotional intelligence comprises four interrelated abilities, namely being able to accurately perceive one’s own emotions, being able to use one’s emotions to focus and stimulate your actions and thoughts in a positive and productive manner, being able to accurately read the emotions of others, and being able to manage your own emotions and those of others. Goleman (1995) focuses on the importance of effective interpersonal relationships that are fostered by high levels of emotional intelligence, and how this impacts the individual’s underlying ethical character.

## 8.14 SUMMARY AND CONCLUSION

This chapter started off by discussing how the Hawthorne studies at the beginning of the 20th century had impacted upon the understanding of human behaviour and specifically the impact of motivational factors. On the most basic level, motivation is related to the fulfilment of physiological needs with the aim of attaining homeostasis. The way in which motivational needs are satisfied, as well as what motivates different people, is impacted upon by their individual personalities and values.

Although a distinction can be made between extrinsic and intrinsic sources of emotion, this is largely theoretical, as in reality individuals are motivated by both intrinsic and extrinsic factors. Theories that predominantly focus on extrinsic sources are that of behavioural modification, goal-setting theory, and work and job design. Each of these deal with motivators that are predominantly located in the external environment of the individual.

The second set of theories focus largely in intrinsic sources of motivation. Intrinsic motivation relates to an individual engaging in an activity for the sake of their own interest, the challenge, or sheer enjoyment. The theories of Maslow, Alderfer and McClelland predominantly focus on intrinsic sources of motivation. However, they also address extrinsic sources to some extent. The last four theories under this section, namely expectancy theory, equity theory, self-efficacy and cognitive evaluations focus on internal cognitive processes involved in the assessment of motivational stimuli.

The final two theories, namely Herzberg's two factor theory and quality of work life, focus on the practical application of motivational strategies within the organisation. Both of these theories identify specific practical strategies relating to the motivation of employees within the organisation such as opportunities for growth, recognition and a challenging job.

The link between motivation and emotion is then discussed in that emotions are the primary source of human emotions. Emotions, as illustrated by the Yerkes-Dodson law, impact on performance. Important concepts such as mood, temperament and the expression of emotions were dealt with. A distinction was also made between primary emotions, which are the basic emotions that cut across all cultures, and secondary emotions that comprise the various blends of emotions that tend to differ from culture to culture.

Various explanations for emotions were discussed. The James-Lange theory and Cannon-Bard theory are physiological theories which operate on the basic

premise that all emotions have a common physiological basis. Secondly, the evolutionary theorists believe emotions are essentially inborn reactions to certain stimuli that would be recognisable under most circumstances without much thought. Finally, the two factor theory of emotion and Arnold's and Lazarus's theories are categorised as cognitive appraisal theories as they argue that emotions are influenced by an individual's perception of a situation.

The chapter focused on the way in which culture impacts upon emotion and the fact that all cultures are not necessarily equally prone to perceive and talk about a particular type of emotion.

Finally the chapter dealt with emotional intelligence which refers to the individual's ability to monitor his/her own and others' feelings and emotions, and to use this information to guide his/her thinking and actions which has a significant impact on the success of an individual.

## **8.15 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. The fact that you are attending university and planning to graduate is primarily an example of fulfilling which level on Maslow's Hierarchy of Needs?
  - a) ego needs
  - b) physiological need
  - c) self-actualisation needs
  - d) safety and security needs
  - e) social needs.
2. Employees striking over poor salaries are an example of \_\_\_\_\_?
  - a) McGregor's Theory Y
  - b) Herzberg's hygiene factors
  - c) McClelland's need for power
  - d) Alderfer's growth needs
  - e) Goal setting theory.
3. In goal setting theory the "M" in the SMART acronym relates to goals being:
  - a) Manageable
  - b) Mastered
  - c) Mighty

- d) Multiple
  - e) Measurable.
4. In Expectancy Theory “valence” refers to:
- a) the value of a goal
  - b) the ability to achieve a goal
  - c) the probability that a reward will be obtained
  - d) one goal leading to the attainment of other goals
  - e) none of the above.
5. Which of the following is not one of the “primary emotions”?
- a) joy
  - b) ecstasy
  - c) anger
  - d) fear
  - e) disgust.

### **Answers to multiple-choice questions**

1 = c; 2 = b; 3 = e; 4 = a; 5 = b

### **Issues for discussion and practice**

1. Are extrinsic or intrinsic sources of motivation more important to achieving goals? Motivate why you say so.
2. The Quality of Work Life (QWL) approach identifies a number of factors that affect QWL. Take each of these factors and identify at least one theory of emotion that these can be linked to.
3. An organisation with 2000 employees is planning to implement an “employee of the year” programme where the prize would be a trip to Mauritius for the top performing employee and his/her family. The organisation consults you, as an expert in organisational psychology, what the probability will be of this programme improving the performance of the employees in the organisation. Use Vroom’s Expectancy Theory to address this issue.
4. McClelland’s theory identifies three needs that motivate individuals. Which do you believe is more applicable to yourself? Motivate your answer using practical examples of yourself as a student. How has this been affected by other people’s perceptions of you?
5. Sit together with a group of fellow students and identify a goal for each of you that you hope to achieve within the next five years. Now

evaluate the feasibility of each of these goals using the principles involved in setting effective goals (use the “SMART” acronym as guidance).

## CASE STUDY

### **SENIOR STAFF REPORT HIGHEST LEVELS OF JOB SATISFACTION**

A recently released analysis of the Deloitte Best Company to Work for Survey for 2009 indicates that senior employees are happiest at work. This report reveals that employee satisfaction with their employers appears to increase with job level and age, whilst females tend to report higher levels of contentment with their employers than their male counterparts.

The annual Deloitte Best Company To Work For survey acts as a litmus test for employee satisfaction in South African companies from a wide range of industries. Employees are asked to rate their degree of satisfaction with their employers over 13 categories, including communication, rewards, training and development and leadership.

The results show that job level followed by age has the most influence on employment satisfaction – far greater than gender, tenure or ethnicity. Senior staff, including executive and senior management, report the highest levels of well-being with the organisation. This may be due to a number of factors, including greater autonomy and flexibility as well as having a greater influence on the strategic direction of the organisation.

Age also appears to have a strong influence on employee satisfaction. The degree of satisfaction seems to increase with age and somewhat surprisingly those in their sixties report the highest levels. However, job satisfaction appears to decrease with increasing tenure at an organisation, with respondents with less than three years of service showing the greatest satisfaction whilst those between six and 10 years showing the least. Yet, satisfaction levels seem to pick up after 10 years, with employees who have spent more than 10 years within a company reporting higher levels of satisfaction than their peers.

The results also highlighted that the issue of gender differentiation

within the workplace needs to be addressed. Males and females report differing employment experiences in a number of areas. Whilst both genders have similar needs in the workplace, there are some interesting areas of divergence. One clear example of this was the area of communication within the workplace, where male workers showed greater satisfaction with internal communications policies and systems than their female counterparts. Results from the survey also identified that female respondents were more satisfied in the areas of company training and development as well as diversity and transformation, than their male colleagues.

Other interesting findings include that contractors seem to be more satisfied than permanent staff, white employees responded to being more satisfied than black respondents, who reported being the least satisfied. Employees in the public sector reported being the least satisfied, with those employed in the consumer business sector being the most satisfied.

Measuring employee satisfaction is merely the first step in attaining a committed and productive workforce. Substantial engagement involves addressing, in a timely fashion, those issues that are important to your workers. Without decisive action to tackle some of the stresses and strains that are clear in our survey, employers could find employee engagement tailing off at precisely the time they need all hands on deck to survive the recession and thrive in the recovery.

Source: <http://www.hrfuture.net/research/best-company-to-work-for-survey-results.php?Itemid=1059>. Reprinted by permission of DALRO on behalf of HRFuture.net.

- 
1. How would Herzberg's two factor theory of motivation help to explain some of the results obtained in the survey?
  2. What could be deduced from the fact that "Senior staff report highest levels of job satisfaction" using Maslow's theory?
  3. What could the possible explanations be in the differences in job satisfaction between male and female employees and white and black employees?
  4. What theory/theories can account for the fact that employees who

have spent longer periods with their companies are more satisfied?

5. Which factors covered by the Quality of Work Life (QWL) approach can be identified here?

## **PART THREE**

# **Social behaviour and processes**

The chapters in this part are primarily concerned with social behaviour and processes that affect employees and organisations as open living systems. The study of social behaviour and processes explains how the presence of individuals and groups – their thoughts, feelings, attitudes, values, perceptions and behaviours – influence others and relationships. The success of human coexistence – of the various peoples and cultures in the world, and in specific societies and groups – primarily depends on social processes and interpersonal skills that can accommodate sociocultural diversity and other differences.

In the work context, the dynamic, creative, changing and evolving factors in organisations are primarily based on social structures and processes, which are made up of individuals and groups with all their attributes and interactions. The performance of tasks, and the management, leadership and entrepreneurial processes in organisations, also partly depend on the social inputs of individuals and groups.

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# Chapter 9

[Attitudes and values](#)

## **Chapter 10** [Prosocial behaviours, aggression and conflict](#)

# **Chapter 11**

[Group behaviour and other social processes in organisations](#)

## **Chapter 12**    [Leadership and entrepreneurial behaviour](#)

## **CHAPTER 9**

# **Attitudes and values**

*Jerome Kiley*



## [Introduction](#)



## The nature of values and attitudes



## The functions of values and attitudes



## Different approaches to understanding individual values

9.5

## Work-related attitudes



## Culture and values



## Attitude and value change



## Summary and conclusion



## Assessment activities

## Learning outcomes

After studying this chapter you should be able to:

- comprehend the relationship between values, attitudes and norms
- explain the differences between values and attitudes
- recognise the three components of attitudes
- illustrate how values are implicit in the meaning of work
- explain the functions of attitudes
- discuss the process of changing attitudes
- recognise the role of important work-related attitudes
- explain the importance of culture in general and organisational values.

## 9.1 INTRODUCTION

People have many ideas that are important to them or which they prefer that influence the way people behave towards others and objects that they encounter in their day-to-day life. This is a reflection of peoples' values, which are convictions or beliefs about what are right and wrong. When people talk about work, they show different attitudes to work and attach different meanings to it. Why do their attitudes vary and how are these attitudes related to values? How can their attitudes be changed to foster a greater understanding of differences?

Values can be viewed as more central and core belief systems in people's lives which may direct behaviour and attitudes. An attitude can be defined as (Plotnik, 1996, p.540):

“Any belief or opinion that includes a positive or negative evaluation of some target (object, person, or event) and that predisposes us to act in a certain way toward the target.”

These terms, as well as other terms associated with values (such as “ideology”, “code”, “standard”, “cultural orientation”, “life philosophy” and “reality conception”) can all be accommodated by the term “orientation” (Joubert, 1986). Such terms indicate selective orientations (Williams, 1979). Values and attitudes can thus be seen as selective orientations that direct the individual's preferences and modes of behaviour; they are intentional states or tendencies, which also apply to motivation and emotion (Liebrucks, 2001; Chryssochoou, 2004).

The *aim* of this chapter is to explain attitudes, values and norms as relatively fixed, unobvious characteristics that must be understood, because they are motivating forces in people's perception of, and reactions to, other people and events.

## 9.2 THE NATURE OF VALUES AND ATTITUDES

The term "attitude" was originally used in the visual arts and the theatre: the posture of a figure in a painting, a sculpture or an actor was viewed as expressing an inner emotional state, or an attitude. Thus a figure has an attitude, and this could explain what is meant in popular terms when people speak of someone as "having an attitude", (Jones and Elcock, 2002). In psychology, however, an *attitude* is generally defined as a belief or opinion in terms of three components: cognitive, emotional and behavioural, as distinguished by Secord and Backman (1964) and Bochner (1964) (in Bohner, 2001; Kowalski and Westen, 2011; Marini, 2012). Though one would expect that these three components would be rather coherent or consistent, each component may influence behaviour and decisions differently. The behavioural component refers to the way in which an attitude is expressed. The nature of the attitude may vary according to the extent to which it is more cognitive or more emotional or affective, which is reflected in the behavioural component through which the attitude becomes perceptible. For example, an employee might have a negative attitude towards the boss, incorporating a strong emotional component, yet as the employee gains a better understanding of the boss, the attitude can become more cognitive and manifest in evaluative rather than emotional behaviour. As with emotions, motives and cognitions, it is also important to distinguish between *explicit* (conscious and expressed attitudes) and *implicit* attitudes, the latter referring to private, repressed or hidden beliefs which may well influence behaviour more in certain situations. A non-drinker, with implicit attitudes on substance abuse, may over-indulge at parties because of longstanding associations between pleasure and substance use (Kowalski and Westen, 2011).

Pattison (2004, pp.5–6) argues that *values* are difficult to define and that "these terms have a slippery, chameleon-like nature", He offers a number of definitions from research literature namely:

- A value is "something we hold dear" (Keep and McClenahan, in Pattison, p.6).
- A value is an affective disposition towards a person, object or idea.

- A value is something we recognise as good and worthwhile.
- A value is a personal belief or attribute about the truth, beauty or worth of any thought, object or behaviour. Values appear as attributes of things and events themselves rather than as an activity of the self or as the result of such activity (Tschudin, in Pattison, p.6).

The difference between attitudes and values is that:

“An attitude refers to an organization of several beliefs around a specific object or situation...” whilst “A value “...refers to a single belief of a very specific kind. It concerns a desirable mode of behaviour or an end-state that has transcendental quality to it, guiding actions, attitudes, judgements, and comparisons across specific objects and situations and beyond immediate goals to more ultimate goals” (Rokeach, 1973, p.18).

Rokeach (1973, p.18) further argued that “values occupy a more central position than attitudes within one’s personality makeup and cognitive system, and they are there for determinants of attitudes as well as behaviour.”

Most approaches to attitudes also hold that they comprise three components, namely:

- an *evaluative component*, that is, whether we like or dislike an object, person, or event and how positive or ambivalent an attitude is
- a *target* towards which the attitudes are directed
- a *preference to act* towards the target in a particular manner (Ostrom, Skowronski and Nowak, 1994).

The strength or durability of an attitude will be determined by how important or relevant an attitude is in a person’s life, as well as how easily attitudes are aroused during events (Kowalski and Westen, 2011).

Marini (2012) emphasises the importance of the cognitive, affective and behavioural components in attitudes.

Campbell (Rokeach, 1979, p.72) also argues that behaviour is a manifestation of values and attitudes in that they determine “the probability of the occurrence of a specified behavior in a specified situation”. Our behaviours are thus often not aligned with the cognitive and accompanying affective components of attitudes. For example, an employee may dislike her manager (affective component) because she believes that he treats her unfairly (cognitive component); however, she will still act in a friendly manner (behavioural component) as she is afraid of the repercussions if she should voice her true attitudes towards him.

The relative permanence or changeability of attitudes depends on their origin and on the intensity and duration of the factors that gave rise to them. Attitudes develop through:

- interaction between parent and child
- critical periods of development
- ways of learning
- social, cultural and educational influences
- information transferred through mass media and computers
- personal experiences that may have a profound influence on an individual's attitudes
- socialisation in the work situation.

Attitudes form part of prejudice, stereotypes and discrimination, as the ethical reader box below explains.

### **Ethical reader: Attitudes form part of prejudice, stereotypes and discrimination**

*Prejudice* involves derogatory attitudes or cognitive beliefs, the expression of negative feelings, or the exhibition of discriminatory behaviour towards members of a group because of their membership of that group (Brown, 1995, in Chryssochoou, 2004). As it is focused on people in certain membership categories, prejudice can be seen as any normal form of categorisation (such as the categorisation of animals, sports, or types of work). Some prejudices are superficial, with little social consequence, whilst others are deeply embedded in people's minds and likely to find social support (Schneider, 2004).

*Stereotypes* are generalisations embedded in cultures. In the past they were mainly seen as sick and inaccurate, and produced by prejudice and ignorant minds. Schneider (2004) points out that, although this can be correct, stereotypes are not always negative and can be akin to normal kinds of generalisation, such as generalising about computers or different forms of music.

Stereotypes have the same advantages and disadvantages as all forms of generalising. Yet they can have profound consequences for social behaviour. Stereotypes of groups of people may be

threatening, causing anxiety in members of devalued groups, thereby interfering with their performance, leading to self-fulfilling negative prophecies about their ability and value (Chryssochoou, 2004).

*Discrimination* involves the unjustified use of category labels to make judgements against other people (Schneider, 2004), or the different and unfair treatment of people because of their membership of a particular group (Chryssochoou, 2004).

Both prejudice and stereotypes function at different levels of consciousness. What people think they believe is not always all that they believe. Although the individual can control his/her prejudice and stereotypes, these may be suppressed to the point that they are hard to control, especially when people deny that they have them (Schneider, 2004).

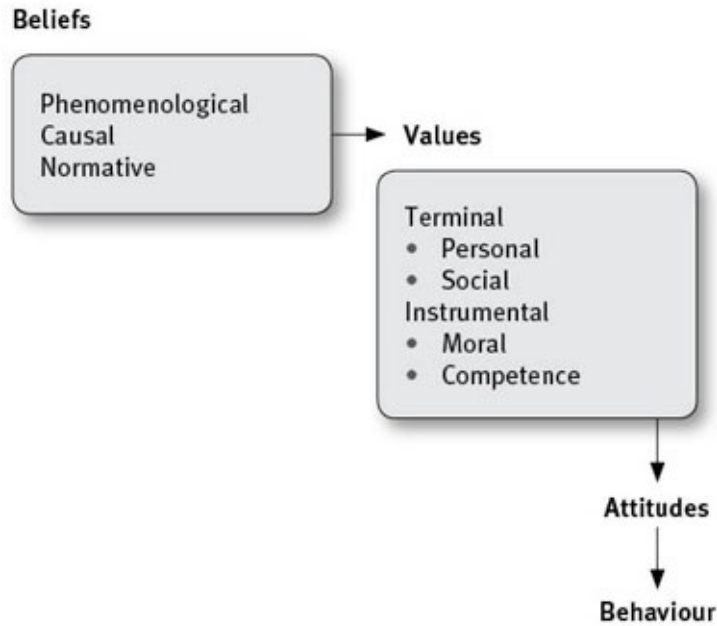
## 9.3 THE FUNCTIONS OF VALUES AND ATTITUDES

Values generally influence attitudes and behaviour. The main way that culture controls our actions is by creating systems of knowledge and cognitive beliefs, as well as systems of values and norms (Parsons in Rokeach, 1979):

“A value system is an organized set of preferential standards that are used in making selections of objects and actions, resolving conflicts, invoking social sanctions, and coping with needs or claims for social and psychological defences of choices made or proposed” (Rokeach, 1979, p.20).

“The values which come to constitute the structure of a societal system are, then, the conception of the desirable type of society held by the members of the society of reference applied to the particular society of which they are members. The same applies to other types of social systems. A value pattern then defines a direction of choice, and consequent commitment to action” (Parsons, 1968 in Rokeach, 1979, p.21).

Values are largely derived from three sources, namely through upbringing from our family and early socialisation, assimilated from our cultural upbringing such as cultural norms related to education, work and play, whilst others are derived from professional and legal codes (Wall, 2004).



**Figure 9.1** Milton Rokeach's structure of beliefs and values.  
(Source: Chelladurai, 2006, p.86) Reprinted, with permission, from P. Chelladurai, 2006, *Human resource management in sport and recreation*, 2nd ed. Champaign, IL: Human Kinetics, 86.

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There are various methods to collect information about human values, although in many instances individuals are not aware of the true values which underlie their attitudes and behaviours. One method is to measure the attitudes that are a product of the values that underlie these. An example of a simple attitude survey is provided in Table 9.1.

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**Table 9.1**

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## A sample attitude survey

### Attitude survey of employee attitudes towards their employer:

Please answer each of the following statements about your company using the following rating scale:

5 = Strongly agree

4 = Agree

3 = Undecided

2 = Disagree

1 = Strongly disagree

**Statement**

1. Can get ahead in this company if I make the effort.
  2. This company's wage rates are competitive.
  3. Employee promotion decisions are handled fairly.
  4. I understand the fringe benefits the company offers.
  5. My job makes the best use of my abilities.
  6. My workload is challenging but not burdensome.
  7. I have trust and confidence in my boss.
  8. I feel free to tell my boss what I think.
  9. I know what my boss expects of me.
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Rating

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## 9.4 DIFFERENT APPROACHES TO UNDERSTANDING INDIVIDUAL VALUES

With values forming the core of personality, different approaches have been formulated in an attempt to understand values. Three of these approaches include:

- Milton Rokeach's conceptualisation of values as central and peripheral
- Eduard Spranger's value orientations
- Shalom Schwartz's universal values.

### 9.4.1 Milton Rokeach's terminal and instrumental values

According to Milton Rokeach, an individual's values are ranked in a hierarchy known as a value system which has the implication that different values are expressed uniquely in terms of their intensity according to the importance of the value to the individual (Rokeach, 1973, p.6):

“When we think about, talk about, or try to teach one of our values to others, we typically do so without remembering the other values, thus regarding them as absolutes. But when value is actually activated along with the others In a given situation, the behavioral outcome will a result of the relative importance of all the competing values that situation has activated.”

Overall values are fairly stable and enduring, thus we are more able to predict an individual's behaviour in a particular situation if we are aware of his/her values. At the same time, values differ between generations, regions and nations.

Rokeach (1973) classifies values into two broad categories, namely terminal and instrumental values. *Terminal values* relate to the end goals people sought.

*Instrumental values* refer to the personal views of the individual as to what methods should be employed to obtain these end goals. An example of a terminal value would be achievement in a particular field, such as obtaining a degree, whilst the instrumental values would determine how the individual is prepared to achieve this. One student would only be prepared to obtain this through hard work and dedication as he/she holds the instrumental values of honesty, whilst another may be prepared to cheat who holds the instrumental value of success at all costs.

Values influence our decisions, and consequently our behaviour in a number of ways, namely (Rokeach, 1973):

- They direct the positions that we take on social issues.
- They induce us to select a particular religion over another.
- They guide the self-image that we show to others.
- They guide the judgements that we make about others.
- Values help us to decide what is moral and competent.
- Values influence the issues we choose to attempt to influence and change in others.
- Values guide how we rationalise and explain our behaviours that would otherwise be regarded as socially unacceptable.

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**Table 9.2** Rokeach's terminal and instrumental values



Instrumental values	
<ul style="list-style-type: none"> <li>• A comfortable life (prosperous life)</li> <li>• An exciting life (stimulating and active life)</li> <li>• A sense of accomplishment (lasting contribution)</li> <li>• A world at peace (world free of war and conflict)</li> <li>• Equality (brotherhood and sisterhood, equal opportunity for all)</li> <li>• Family security (taking care of loved one's)</li> <li>• Freedom (independence, free choice)</li> <li>• Happiness (contentedness)</li> <li>• Inner harmony (freedom from inner conflict)</li> <li>• Mature love (sexual and spiritual intimacy)</li> <li>• National security (protection from attack)</li> <li>• Pleasure (enjoyable, leisurely life)</li> <li>• Salvation (saved, eternal life)</li> <li>• Self-respect (self-esteem)</li> <li>• Social recognition (respect, admiration)</li> <li>• True friendship (close companionship)</li> <li>• Wisdom (a mature understanding of life)</li> </ul>	<ul style="list-style-type: none"> <li>• Ambitious (hardworking, aspiring)</li> <li>• Broadminded (open-minded)</li> <li>• Capable (competent, effective)</li> <li>• Cheerful (lightheartedly, joyful)</li> <li>• Clean (neat, tidy)</li> <li>• Courageous (standing up for one's beliefs)</li> <li>• Forgiving (willing to pardon others)</li> <li>• Helpful (working for the welfare of others)</li> <li>• Honest (sincere, truthful)</li> <li>• Imaginative (daring, creative)</li> <li>• Independent (self-reliant, self-sufficiency)</li> <li>• Intellectual (intelligent, reflective)</li> <li>• Logical (consistent, rational)</li> <li>• Loving (affectionate, tender)</li> <li>• Obedient (dutiful, respectful)</li> <li>• Polite (courteous, well mannered)</li> <li>• Responsible (dependable, reliable)</li> <li>• Self-controlled (restrained, self-disciplined)</li> </ul>

Source: Rokeach, 1979

### 9.4.2 Values as part of personality: Spranger's value orientations

Eduard Spranger (1928), defined values as “the constellation of likes, dislikes, viewpoints, shoulds, inner inclinations, rational and irrational judgments, prejudices, and association patterns that determine a person’s view of the world”. He identified six value-orientations that form part of every individual’s personality:

- theoretical value-orientations
- economic value-orientations
- social value-orientations
- power value-orientations
- religious value-orientations
- aesthetic value-orientations.

These *value orientations* are present in the personality of an individual and function in interrelation to each other. However, one value-orientation tends to be dominant in an individual’s personality.

Spranger argued that these orientations have been present in human beings

from antiquity, but the way they are expressed changes as human beings' cultural history changes. A modern value-orientation that has been added to Spranger's five earlier types is the technical orientation which has emerged over time and is essentially a combination of the theoretical and an economic orientation (Theron, 2009).

The *economic person* is mainly directed toward what is useful in life. He/she is interested in the practical aspects of the business world, in the manufacture, marketing, distribution and consumption of goods, in the use of economic resources; and in the accumulation of tangible wealth. This type of person is practical and fits well the stereotype of the business person (Bruno and Lay, 2006).



**Figure 9.2** The economic person.

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The *theoretical person* is mainly interested in the discovery of truth and the systematic ordering of knowledge. This type of person generally takes a cognitive approach, looking for similarities and differences in things with little concern for the beauty or utility of objects. His /her main concern is with reason, logic and observation. This person's interests are empirical, critical, and rational (Bruno and Lay, 2006).



**Figure 9.3** The theoretical person.

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The *political person* is directed toward power, not necessarily in politics, but in whatever area he/she finds him-/herself. This is a value orientation found in most leaders as they have a high power orientation. These people are highly competitive throughout their lives which manifest itself in the drive for personal power, influence, and recognition in a continuous basis (Bruno and Lay, 2006).



**Figure 9.4**      The political person.

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The *aesthetic person* is mainly interested in the artistic aspects of life. However, this does not necessarily mean that he/she is a creative artist. This person values form and harmony and views experience in terms of grace, symmetry, or harmony. He/she lives in the here and now with enthusiasm (Bruno and Lay, 2006).



**Figure 9.5** The aesthetic person.

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The *social person* is primarily concerned with the well-being of other people. This person's essential value is love of people that is expressed through altruistic and philanthropic actions. The social person values people and tends to be kind, sympathetic, and unselfish (Bruno and Lay, 2006).



**Figure 9.6** The social person.

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The *religious* person sees all aspects of his/her life as having a spiritual foundation. He/she sees nothing as existing in itself, because everything is part of the spiritual, of which a belief in God is the central concept. Belief is seen as the highest form of knowledge. The religious person sees all activities as service to God and acquisition of earthly things as gifts from God (Theron, 2009).



**Figure 9.7** The religious person.

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### **Applying Spranger's six value-orientations in psychological tests and research**

Spranger's conception of these six value-orientations found application in a psychological test, namely the Allport-Vernon-Lindzey Study of Values (Allport, Vernon and Lindzey, 1960), which is used in research on values. Spranger's conception of values as part of personality has been extended by research on the relationship between values and personality traits measured by personality tests. The aesthetic value-orientation, for example, has been shown to be related to sensitivity, radicalism, a tendency towards unconventionality and self-actualisation, and aversion to economic and political values (Theron, 1994).

The relation between personality and attitudes, and work values in particular, has become an important field of contemporary research in I-O Psychology. Findings have shown which personality traits affect individuals' judgements of what makes them happy at work. The traits of extraversion, openness to experience, and agreeableness (friendliness), for example, show a strong relation to work values comprising work relationships, influence and advancement, and financial and working conditions, whilst openness as such is related to autonomy and the use of skills (Furnham, Petrides, Tsaousis, Pappas and Garrod, 2005).

### 9.4.3 Universal values: Schwartz's theory

Spranger identified six values that are universal in that they are present to a greater or lesser degree in all people. Schwartz (1992, 1994, 2005) extended the list to ten values that seem to cover the full range of human values. Shalom Schwartz (1994, p.21) defines values as “desirable transsituational goals, varying in importance that serves as guiding principles in the life of a person or other social entity”.

Schwartz (n.d.) conceptualised his ideas about values as follows below:

- Values are *beliefs* that are tied inextricably to emotion, not objective, cold ideas.
- Values are a *motivational construct*. They refer to the desirable goals people strive to attain.
- Values *transcend specific actions and situations*. They are abstract goals. The abstract nature of values distinguishes them from concepts like norms and attitudes, which usually refer to specific actions, objects, or situations.
- Values *guide the selection or evaluation of actions, policies, people, and events*. That is, values serve as standards or criteria.
- Values are *ordered by importance relative to one another*. People's values form an ordered system of value priorities that characterise them as individuals. This hierarchical feature of values also distinguishes them from norms and attitudes.

Shwartz's (1996) theory aims to provide a comprehensive set of different motivational types of values that can be recognised across cultures. His theory identified ten motivationally distinct value orientations recognised by people from all cultures. His theory focuses on the conscious motivational goals that

represent the “... three requirements of human existence: biological needs, requisites of coordinated social interaction, and demands of group survival and functioning” (Schwartz, 1996, p.2). The ten values identified by Schwartz (1996) are:

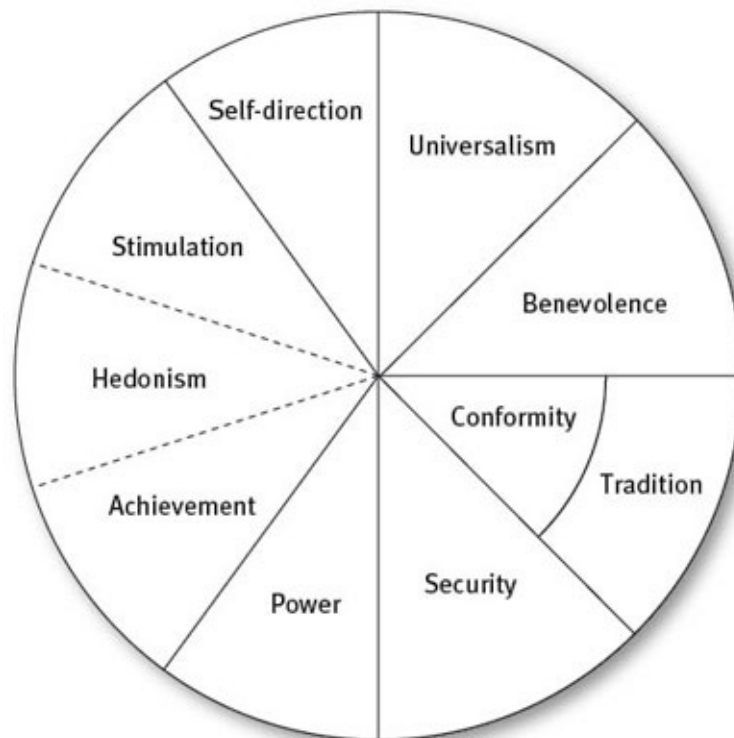
- *Power* which is characterised by the drive for social status and prestige, control or dominance over people and resources. Individuals who value power aspire to social status, control of others, authority and wealth.
- *Achievement* values are lived out through personal success by demonstrating competence according to social standards. Individuals who value achievement aim to be successful, capable, ambitious and influential.
- *Hedonism* concerns pleasure and sensuous gratification for oneself. Hedonistically orientated individuals are focussed on pleasure and enjoying life.
- *Stimulation* encompasses the drive for excitement, novelty, and challenge in life. Individuals who value stimulation are daring, live a varied life and aspire to an exciting life.
- *Self-direction* encompasses valuing independent thought and actions, being able to choose, create and explore. Self-directed individuals are creative, value their freedom and independence, and are curious.
- *Universalism* values an understanding, appreciation, tolerance and protection for the welfare of all people and nature. Individuals whose values are universalistic are broadminded and value wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature and protecting the environment.
- *Benevolence* encompasses preserving and enhancing the welfare of those with whom one is in frequent personal contact. Benevolent individuals are helpful, honest, forgiving, loyal and responsible.
- *Tradition* values respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide the self. Tradition orientated individuals are humble, moderate, devout, respect tradition, and accepting of their position in life.
- *Conformity* comprises the restraint of actions and impulses that are likely to upset or harm others and violate social expectations or norms. People who value conformity are polite, obedient, self-disciplined, and honour their parents and elders.
- *Security* values safety, harmony, and stability of society, of relationships, and of self. Individuals who value security value the family security, national

security, social order, cleanliness and the reciprocation of favours.

Each value is identified by a goal that indicates its motivational function towards influencing behaviour. The ten values are interrelated on a continuum, which is presented in a circular structure (see Figure 9.8).

Adjacent values in the circle share similar motivational goals, for example, power and achievement. The values of conformity and tradition are in the same wedge of the circle because they share the same individual goal. Values in oppositional wedges on the circle represent conflicting or competitive motivational goals, such as self-direction and security.

The oppositions between conflicting values are organised along two bipolar dimensions. One dimension contrasts *openness to change* and *conservation*. This dimension indicates the conflict or competition there is between stimulation and self-direction versus security, conformity and tradition. The other dimension contrasts *self-enhancement* and *self-transcendence*. This shows the conflict or competition between valuing power and achievement versus universalism and benevolence. Hedonism includes aspects of both self-enhancement and openness to change.



**Figure 9.8** Relations amongst values.  
Source: Schwartz (2005, p.32)

### **Applying Schwartz's theory in research**

Schwartz's theory has been developed by research utilising the Schwartz Value Survey (SVS). A South African study of business science students (Uphill, 2007) supports the notion that values can be grouped into motivational types. It also shows that achievement is the strongest value in that group, whereas stimulation and security are not clearly indicated as values.

Research findings by Ungerer (2009) in general correspond with Schwartz's model. Consumers from particular population groups in South Africa show characteristic value patterns. Consumers in general appear to pursue power, hedonism, stimulation and achievement values quite strongly, whilst they attach little importance to benevolence and security values. Their values also differ as their feelings of subjective well-being differ. Consumers with lower subjective well-being attach importance to self-transcendence, whilst consumers with higher subjective well-being are characterised by self-enhancement.

## **9.5 WORK-RELATED ATTITUDES**

Both managers and employees possess values and attitudes that the organisation may wish to alter or reinforce (Furnham, 2005). Job satisfaction, work satisfaction and organisational commitment are attitudes that have been investigated specifically in the work context.

### **9.5.1 Values and the meaning of work**

The meaning of work embraces the values that individuals attach to work or to working. A significant factor in the meaning of work is the value that working has for the individual at any given time. This involves the centrality of work relative to other life roles. A study of over 15 000 individuals in eight industrialised countries found that seeing work as a *central life interest* in life decreases as the importance of leisure time increases. The majority of individuals, however, valued working, and would have continued working even

if they had had the means to live comfortably without working for the rest of their lives (MOW, 1987).

Research conducted in 11 countries, ranging from moderately developed to industrially most advanced (Sverko and Super, 1995), showed that the particular values attached to work are all inner-oriented values. In all the countries the majority of respondents indicated that personal development, the utilisation of ability, and achievement (which are all related to self-fulfilment) were the most important values. The desire for authority and prestige and a willingness to take risks were the two least important.

As part of this study, Langley (1995), found that amongst South African high-school pupils of all population groups, the most important values were using ability (which had the highest value in all the population groups), personal development, achievement, economic security and advancement. By comparison, the least important values were social relations, variety, desire for authority, physical prowess and taking risks.

The importance of specific values can change as society and the workplace change. Change then becomes a meaning attached to work. In postmodern societies value is placed on heterogeneity, openness and inclusiveness, and acceptance of difference and otherness (Jencks, 1989). In practice, however, these values are reflected in different ways, which is seen in different types of cultural diversity.

Assimilation and multiculturalism constitute two different types of cultural diversity (Moghaddam, 1998, in Chryssochoou, 2004). In assimilation, minorities abandon their heritage cultures in an attempt to melt into mainstream society. They can adopt the majority way of life, or majority and minority groups can contribute to forming a new common culture. In multiculturalism, heritage cultures are retained and developed in a way to form a multifaceted culture. Multiculturalism can be:

- active, where a policy supports the cultural heritage of people
- laissez-faire, where cultural diversity is neither protected nor suppressed
- collective, where heritage cultures are treated as equal and respected
- individual, where each individual is treated as a carrier of a particular culture.

## **Ethical reader: Managing cultural diversity in the workplace**

The Websters dictionary online defines diversity as “the condition of

having or being composed of differing elements: variety; especially: the inclusion of different types of people (as people of different races or cultures) in a group or organization". However, Mor Barak (2011) points out that diversity is not simply limited to cultures, language and race, but encompasses a wide range of differences including race, religion, physical disability, gender and sexual orientation.

The University of California, San Francisco offers a number of guidelines for managing diversity in the workplace, including:

- testing one's assumptions before acting on these
- developing the belief that there are multiple ways of achieving goals that may differ between cultures
- developing honest relationships with staff members and discovering what motivates them, what their goals are, and how they want to be recognised
- developing techniques to give feedback appropriately to persons from different cultures
- having selection committees that are diverse
- making employees aware of both the written and unwritten rules in the organisation
- examining existing policies and procedures for the sources of discrimination
- listening to the constructive suggestions of employees and implementing these suggestions
- taking immediate action against managers and employees who discriminate against others
- making real efforts to meet employment equity and other diversity goals
- having a good understanding of institutionalisms such as racism and sexism and how these manifest themselves in the workplace
- ensuring that assignments and opportunities for advancement are accessible to everyone.

Source: <http://ucsfhr.ucsf.edu/index.php/pubs/hrguidearticle/chapter-12-managing-diversity-in-the-workplace>

## 9.5.2 Job satisfaction

*Job satisfaction* is a predominantly positive attitude towards the work situation. An individual may be dissatisfied with some aspects of his/her work and satisfied with others, but if he/she feels or thinks positively about relatively more aspects, there is a general factor that can be labelled “job satisfaction.”

The components of attitudes in general (the cognitive, emotional and behavioural components) are also involved in job satisfaction. The behavioural component is not necessarily very strong, as an individual might have feelings or views about an issue without revealing it in his/her behaviour. An employee might, for example, feel that the head of the department does not show enough concern for employees’ feelings and have good ideas as to how that superior’s attitudes could have a positive effect on the job satisfaction of all employees, but might refrain from voicing his/her ideas.

Job satisfaction is subject to change as job contexts and organisations change in the postmodern context of work. The individual’s experience in a particular work situation influences his/her attitudes, and changes in the work situation may lead to changes in his/her attitudes and work behaviour. This suggests that when there are changes in the work situation, organisational aspects (such as company policy concerning the employer’s ability to influence employees’ attitudes) carry more weight than personal characteristics of the individual (Gerhart, 2005).

Staw and Cohen-Charash (2005) suggest that job satisfaction should be studied as a process comprising three steps:

- the individual’s experience of events and conditions in a workplace
- how he/she evaluates this experience
- how this experience is remembered over time.

These three steps are all influenced by the individual’s affective disposition, including sensitivity to rewards and punishments, sensitivity to comparisons with others in higher positions, and sensitivity to inequity, as well as his/her positive or negative emotional tendencies and emotional intelligence.

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## **Factors conducive to job satisfaction**

Extensive review of the research on job satisfaction indicates that the following factors are conducive to job satisfaction:

- Mentally challenging work, involving a fair amount of variety, freedom, the use of one's skills and abilities, and receiving feedback on one's work. Generally work should be moderately challenging; if it is too challenging it can cause frustration and feelings of failure, whilst it can cause boredom if it is not challenging enough.
- Equitable rewards, such as pay and promotion policies and practices that workers perceive as fair, based on the demands of a job, the individual's skills, and industry pay standards. Fairness, not the amount of payment, is vitally important. Some people are prepared to work for less money if their work has other rewards.
- Working conditions that are conducive to doing one's job well, including safety and comfort, a clean environment, relatively modern facilities and adequate equipment, and working with co-workers and bosses who are friendly and supportive. According to Robbins (2001), to facilitate job satisfaction, a supervisor needs to show an interest in workers, offer praise for good performance and listen to workers' opinions.

### **9.5.3 Organisational commitment**

Organisational commitment refers to the degree to which the individual identifies with his/her employing organisation and its goals. An employee might not experience job satisfaction or job involvement, yet be relatively satisfied with the organisation and therefore wish to continue working for it.

*Organisational commitment* concerns not only individuals' identification with the organisation, but also the commitment of the organisation to employees. A South African study in the mining industry (Van Aardt, 1995) showed that the attitudes of employees are determined by their beliefs as to whether and how management is committed to occupational safety, as well as the belief that future accidents can be prevented. The findings showed that white employees generally had positive attitudes, whilst black employees believed that what management said and did were not the same.

The commitment of managers to their organisation is influenced by their emotional states, in particular the experience of pleasure at work. This implies that organisations should foster positive emotions by, for example, support, training, coaching and team building (Mignonac and Herrbach, 2004).

Values can transcend a specific situation, thus making them different from attitudes, which usually apply to specific situations (Weiten, 2007). For example, honesty as an attitude could be adhered to in friendship and family relations, but not necessarily be adhered to in the individual's associations with bosses and co-workers. Honesty as a value is likely to be honoured in all the individual's life contexts.

Values also differ from attitudes in that they form an ordered system in which they are relatively important to each other.

#### **9.5.4 Job involvement and engagement**

*Job involvement* can be influenced by organisational commitment, but refers specifically to an employee's job commitment and job satisfaction in a job. *Engagement* entails a passionate absorption, vigor and dedication on and in a job or tasks (Coetzee and Schreuder, 2010).

### **9.6 CULTURE AND VALUES**

Values are thus “shared ideas about what is true right and beautiful” that influence norms which “are the ideas members of a culture share about the way things ought to be done” (Nanda and Warns, 2011).

#### **9.6.1 Norms and behaviour**

Norms prescribe behaviour in social situations and thus play a role in regulating social behaviour (Hechter and Opp, 2001). Rokeach (1973) distinguishes between values and norms in that values relate both to an end state as well as the means to these, whilst a norms only relate to behaviour, that is, the end state. A value is not limited to a specific situation, whilst a norm is a code of conduct that guides behaviour within a specific situation, and a value is something that is held internally by the individual, whilst a norm is held externally by the group. At the same time it is important to note that research has shown that even in small societies, norms are not followed by everyone and neither are values universal in that everyone does not ascribe to these values (Nanda and Warns, 2011).

There are three kinds of norms, namely folkways, laws and mores. The

customs and manners of a society are known as *folkways*. Examples are how we greet someone, such as shaking hands or bowing and how we eat, such as with a knife and fork, our hands or chopsticks. *Laws* are norms that have been formalised and are backed by political authority. Examples include labour laws that govern how employees should be treated, and criminal laws that prescribe which behaviours committed by members of society are regarded as crimes by that society. *Mores* are directly linked to morals in a society with violations of these producing “shock, horror and moral indignation” (Mooney, Knox, Schacht and Holmes, 2012).

All norms are associated with social consequences, known as *sanctions*, for either violating or conforming to a norm. When members conform to society’s norms, they are rewarded with a *positive sanction* (such as acceptance and praise), whilst non-conformance is associated with *negative sanctions* (such as being excluded or ostracised by society). An extreme case of a negative sanction is in the case of laws where persons who violate these are fined or even sent to prison.

Culture is then a shared system of norms and values that guide how the members of a particular society think and behave. It refers to “the meanings and ways of life that characterize a society” (Mooney, et al., 2012, p.7).

### 9.6.2 The role of values and attitudes in culture

According to Kluckhohn:

“Culture consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artefacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values” (Hofstede, 2001, p.9).

Similarly Schein (2004, p.14) defines culture as:

“a pattern of shared basic assumptions that the group learned as it solved its problems of external adaption and internal integration, that has worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems.”

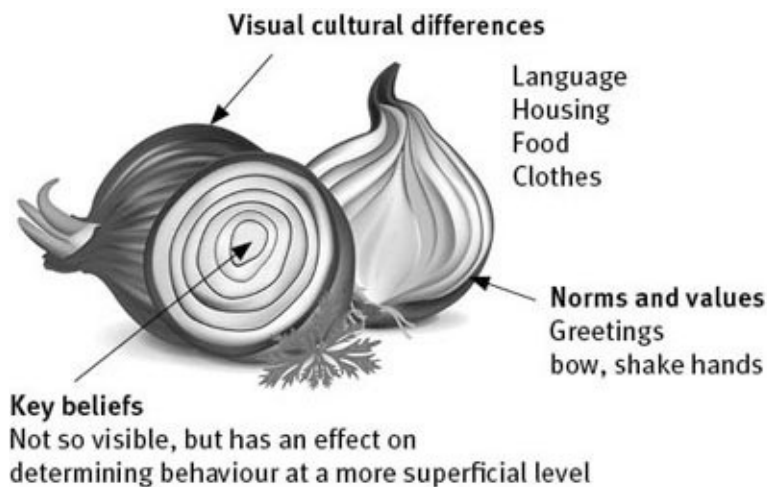
Schein’s (2004) definition has a number of important implications, namely that:

- culture is a *group phenomenon* which implies that an individual cannot have a

culture, but that it exists through communication between the members of a group

- culture is a *set of basic assumptions* meaning that it is enduring and difficult to change
- culture is a *developing process* as a group struggles to adapt to various problems and challenges in the environment
- culture *forms a socialising process* in that the new members are taught the assumptions and values that make up the culture.

Schein (2004) made an important contribution to the study of culture in that he identified three layers of culture that refer to the degree to which the different cultural phenomena are visible to the observer. This is most effectively illustrated through the metaphor of an onion illustrated below.



**Figure 9.9** The onion metaphor of culture.  
(Source: <http://www.arlt-lectures.com/8007-03.htm> accessed 20 March 2012)

The outer layer comprises the *artefacts*, that is, the visible and tangible aspects of culture, or what people primarily associate with a particular culture. These are the visual aspects of culture, such as the behaviour of the members, clothes worn, types of food eaten, language spoken, and the characteristics of buildings such as style, fittings and furnishings.

The second layer comprises the *espoused norms and values* of a group. The norms control behaviour and prescribe what is acceptable or not, whilst values prescribe what is right and wrong. The group enforces the norms by means of social control, whilst values tend to be more internal in nature than norms.

The deepest layer is the inner layer which is the level of *shared basic assumptions*. These assumptions are at the core of the culture, and have become so basic that they are no longer thought of, that is, they are instinctual. These are very difficult for an outsider to recognise without conscious and prolonged observation of a particular cultural group.

A distinction can be made between national and organisational culture. The theory of Geert Hofstede (1980) and cultural dimensions of Frons Trompenaars and Charles Hampden-Turner (1997) are dealt with in the context of national culture, whilst Hofstede and Waisfisz's model of organisational culture is covered as an example of an understanding of culture within an organisational context.

### **9.6.3 National culture**

Geert Hofstede (1980, p.25) defined culture as “the collective programming of the mind which distinguishes members of one human group from another”. Each culture emphasises different values and combinations thereof that are important to it.

#### **9.6.3.1 Geert Hofstede's national cultural dimensions**

Between 1967 and 1973 he conducted one of the most comprehensive studies of how values in the workplace are influenced by culture by analysing the value scores of 117 000 IBM employees from more than 70 countries. Hofstede's research illustrated that cultural differences between nations are found on the level of values which is the deepest levels of values. The initial analysis of this data identified systematic differences in national cultures in four clusters which he referred to as dimensions, namely power distance (PDI), individualism (IDV), uncertainty avoidance (UAI) and masculinity (MAS).

*Power distance (PDI):* Expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. The central concern here is how a society deals with inequalities amongst people. In societies which exhibit a large degree of power distance, a hierarchical order is accepted wherein everybody has a place, that is, you are a member of a particular class or social group and that is just the way it is. Conversely in societies with low power distance, people try to create an equal distribution of power and strongly question inequalities of power.

*Individualism versus collectivism (IDV):* In individualistic societies the individual's identity is defined in terms of “I.” There is a preference for a social

framework that is loosely tied together where individuals are only expected to take care of themselves and their immediate families only. Collectivism, the opposite pole, represents a closely interlinked society in which individuals can expect their relatives or community to look after them. The community expects unquestioning loyalty in exchange for this. An individual's self-image and identity is defined as "we" within this type of society.

*Masculinity versus femininity (MAS):* Masculine societies are highly competitive and admire values such as achievement, heroism, assertiveness and material reward for success. On the other hand, feminine societies are more consensus orientated and admire values focussing on cooperation, modesty, caring for the weak and quality of life.

*The uncertainty avoidance (UAI):* Dimension expresses the degree to which the members of a society can deal with uncertainty and ambiguity. The core issue here is how a society deals with the fact that the future is uncertain and the degree to which a society should try to control the future or just let it happen (<http://geerthofstede.com>).

A fifth dimension, *long-term orientation (LTO)*, was added by Geert Hofstede in 1991 which was based on research by Michael Bond (Bond et al., 1987) who conducted an additional international study amongst students with a survey instrument that was developed together with Chinese employees and managers. That dimension, based on Confucian dynamism, is (Franke, Hofstede and Bond in Lin and Ho, 2009, p.2402):

"The acceptance of the legitimacy of hierarchy and the valuing of perseverance and thrift, all without undue emphasis on tradition and social obligations which could impede business initiative."

This dimension concerns society's search for virtue.

Hofstede added a sixth dimension, *Indulgence versus Restraint (IVR)*, in the 2010 edition of his book *Cultures and organizations: Software of the mind* which was based on the research done by Michael Minkov's (2007) analysis of the World Values Survey data for 93 countries. This dimension concerns the gratification of basic and natural human drives related to enjoying life and having fun.

Geert Hofstede's six cultural dimensions, together with the characteristics of societies that are characterised as low and high in the different dimensions, are listed in Table 9.3 below.

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**Table 9.3**      The six cultural dimensions of Geert Hofstede



Value dimension

Value description

High score

Low score			
Power distance (PDI)	The degree to which equality, or inequality, between people is accepted in the country's society	<ul style="list-style-type: none"> <li>• Inequalities of power and wealth are accepted within the society</li> <li>• Centralised companies</li> <li>• Strong hierarchies</li> <li>• Large gaps in compensation, authority, and respect</li> </ul>	<ul style="list-style-type: none"> <li>• In these societies equality and opportunity for everyone is stressed</li> <li>• Flatter organisations</li> <li>• Supervisors and employees are considered almost as equals</li> </ul>
Individualism (IDV)	Degree to which a society reinforces individual or collective achievement and interpersonal relationships	<ul style="list-style-type: none"> <li>• Individuality and individual rights are dominant within the society</li> <li>• Individuals tend to form a larger number of looser relationships</li> <li>• High valuation on people's time and their need for freedom</li> <li>• An enjoyment of challenges, and an expectation of rewards for hard work</li> <li>• Respect for privacy</li> </ul>	<ul style="list-style-type: none"> <li>• Societies of a more collectivist nature with close ties between individuals</li> <li>• Extended families and collectives where everyone takes responsibility for fellow members of their group are reinforced</li> <li>• Show respect for age and wisdom</li> <li>• Suppress feelings and emotions to work in harmony</li> <li>• Respect traditions and introduce change slowly</li> </ul>
Masculinity (MAS)	Degree to which a society reinforces the traditional masculine work role model of male achievement, control, and power	<ul style="list-style-type: none"> <li>• There is a well-defined distinction between men's work and women's roles</li> <li>• Males dominate a significant portion of the society and power structure</li> <li>• Men are masculine and women are feminine</li> </ul>	<ul style="list-style-type: none"> <li>• Women are treated equally to men in all aspects of the society</li> <li>• A woman can do anything a man can do</li> <li>• Powerful and successful women are admired and respected</li> </ul>
Uncertainty avoidance (UAI)	The level of tolerance for uncertainty and ambiguity within the society, that is, unstructured situations	<ul style="list-style-type: none"> <li>• The country has a low tolerance for uncertainty and ambiguity</li> <li>• Creates a rule-oriented society that institutes laws, rules, regulations, and controls in order to reduce the amount of uncertainty</li> <li>• Very formal business conduct with lots of rules and policies</li> <li>• Need and expect structure</li> <li>• Sense of nervousness spurns high levels of emotion and expression</li> <li>• Differences are avoided</li> </ul>	<ul style="list-style-type: none"> <li>• The country has less concern about ambiguity and uncertainty and has more tolerance for a variety of opinions</li> <li>• Society is less rule-oriented, more readily accepts change, and takes more and greater risks</li> <li>• Informal business attitude</li> <li>• More concern with long term strategy than what is happening on a daily basis</li> <li>• Accepting of change and risk</li> </ul>
Long-term orientation (LTO)	Degree to which a society embraces, or does not embrace, long-term devotion to traditional, forward thinking values	<ul style="list-style-type: none"> <li>• The country prescribes to the values of long-term commitments and respect for tradition</li> </ul>	<ul style="list-style-type: none"> <li>• The country does not reinforce the concept of long-term, traditional orientation</li> </ul>

	<ul style="list-style-type: none"> <li>• A strong work ethic is supported long-term rewards are expected as a result of today's hard work</li> <li>• Family is the basis of society</li> <li>• Parents and men have more authority than young people and women</li> <li>• Strong work ethic</li> <li>• High value placed on education and training</li> </ul>	<ul style="list-style-type: none"> <li>• In this culture, change can occur more rapidly as long-term traditions and commitments do not become impediments to change</li> <li>• Promotion of equality</li> <li>• High creativity, individualism</li> <li>• Treat others as you would like to be treated</li> <li>• Self-actualisation is sought</li> </ul>
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Indulgence versus restraint	Describes hedonistic behaviours: How freely can people satisfy their basic needs and desires, how strict social norms are followed and gratification suppressed and regulated	<ul style="list-style-type: none"> <li>• Societies with a high rate of indulgence allow hedonistic behaviours</li> <li>• People can freely satisfy their basic needs and desires</li> <li>• Cannot easily be motivated with material reward</li> <li>• Enjoys the moment</li> <li>• Objects need to fulfill purpose not status</li> </ul>	<ul style="list-style-type: none"> <li>• Restraint defines societies with strict social norms</li> <li>• Gratification of drives is suppressed and regulated</li> <li>• Expects (material) reward for job done well</li> <li>• Feels treated unfairly easily</li> <li>• Status objects important, for example, phone, laptop, watch, and company</li> </ul>
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Source: Adapted from <http://www.geerthofstede.com> and [http://www.mindtools.com/pages/article/newLDR\\_66.htm](http://www.mindtools.com/pages/article/newLDR_66.htm)

## What about South Africa?

Data was also collected on South Africa during Hofstede's study at IBM from 1967 to 1973, hence the fact that information was only collected on the first four dimensions.

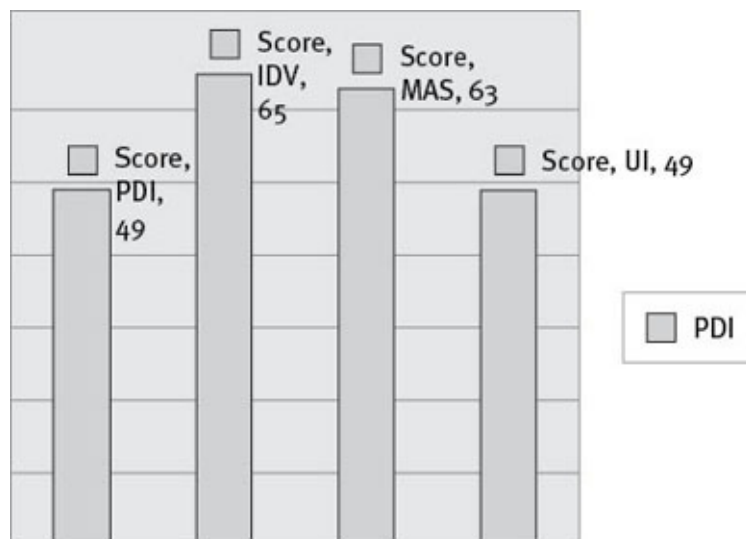
South Africa scored 49 on the *power distance (PDI)* dimension which means that people to a larger extent accept a hierarchical order in which everybody has a place and which needs no further justification. Hierarchy in an organisation is seen as reflecting inherent inequalities, centralisation is popular, subordinates expect to be told what to do, and the ideal boss is a benevolent autocrat

South Africa, with a score of 65 for *individualism (IDV)* is an individualistic society. This means there is a high preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families only. In individualistic societies offence causes guilt and a loss of self-esteem, the employer/employee relationship is a contract based on mutual advantage, hiring and promotion decisions are supposed to be based on merit only, management is the management of individuals.

South Africa scored 63 on the *masculinity/ femininity (MAS)* dimension and is thus a masculine society. In masculine countries people “live in order to work”, managers are expected to be decisive and assertive, the emphasis is on equity, competition and performance and conflicts are resolved by fighting them out.

South Africa scored 49 on the *uncertainty avoidance (UI)* dimension and thus has a preference for avoiding uncertainty. Countries exhibiting high uncertainty avoidance maintain rigid codes of belief and behaviour and are intolerant of unorthodox behaviour and ideas. In these cultures there is an emotional need for rules (even if the rules never seem to work), time is money, people have an inner urge to be busy and work hard, precision and punctuality are the norm, innovation may be resisted, security is an important element in individual motivation.

Considering that this study was done during a very different era of South African history, do you think that the findings are still valid in South African society today? What do you think South Africa would score on the two later dimensions added by Hofstede?



Source: Adapted from: [www.geerthofstede.eu](http://www.geerthofstede.eu) Geert Hofstede, Gert Jan Hofstede, Michael Minkov, “Cultures and organizations, software of the mind”, Third Revised Edition, McGrawHill, 2010, ISBN 0-07-166418-1 © Geert Hofstede B.V. Quoted with permission.

### 9.6.3.2 The cultural framework of Trompenaars and Hampden-Turner

The definition that underlies the cultural framework of Fons Trompenaars and Charles Hampden-Turner is that “Culture is the way in which a group of people solves problems and reconciles dilemmas” (Trompenaars and Hampden-Turner, 1998, p.6). They were thus concerned with the cultural dimensions that influences approaches to behaviour and logical reasoning in different countries. They identified seven cultural dimensions based on their research over a period of 15 years that involved in excess of 50 000 participants from more than 50 countries. The first five dimensions relate to the social interaction between members of a cultural group, the sixth to their relationship with the environment and the seventh describes a cultures relationship to time:

- *Universalism versus pluralism* dimension focuses on whether rules or relationships are more important within a culture, that is, whether the implications of the law or personal relationships are emphasised more.
- *Individualism versus communitarianism* dimension focuses on whether a culture emphasises functioning as a community or as individuals.
- *Specific versus diffuse* dimension focuses on the extent to members of a culture get involved with other members, that is, the degree to which responsibility is assigned or is diffusely accepted by the members of a culture.
- *Affectivity versus neutrality* dimension focuses on the extent that cultures regard it as acceptable to display emotions, that is, the degree to which a culture regards it acceptable for individuals to display their emotions versus being taught not to display their feelings overtly.
- *Achieved versus ascribed status* dimension focuses on whether a culture requires its members to prove themselves to attain status, or in other words, is status based on what the members of the society have achieved versus status being ascribed based on factors such as birth, age, gender or wealth.
- *Inner directed versus outer directed* dimension focuses on the extent to which members of a culture attempt to control their environment or work with it, that is, the degree to which individuals believe the environment can be controlled versus believing that the environment controls them.
- *Sequential versus synchronic time* dimension focuses on whether the members of a culture do things one at a time or several things at once. The two factors that time orientation focus on are the relative importance cultures assign to the past, present and future, and their way in which they structure time. Here a distinction is made between past-oriented cultures that view the future as a repetition of the past and focus on issues such as respect for ancestors and collective historical events, present-oriented cultures that focus

on the daily demands of everyday life, and future-oriented cultures that focus on future prospects (Trompenaars and Hampden-Turner, 1998).

#### 9.6.4 Organisational culture

Whilst the cultural differences between nations predominantly exist on the level of values, cultural differences amongst organisations exist on the level of practices which are more tangible. Practices are more superficial and thus more easily learned and unlearned than values which form the core of national cultures. Organisational culture is defined as the “the collective mental programming of otherwise similar persons from different organizations” (Hofstede, 2001, p.71).

##### 9.6.4.1 Hofstede’s and Waisfisz’s Organisational Culture Model

Organisational cultures differentiate different organisations within the same country from one another. Organisational cultures mainly differ from one another at the level of practices, that is, symbols, heroes and rituals, as well as being more superficial, as they are learnt and unlearnt more easily as compared to the values that are at the core of national cultures (Hofstede and Hofstede, n.d.). Geert Hofstede in collaboration with Bob Waisfisz (<http://geerthofstede.com/organisational-culture.html>) developed the Organisational Cultural Model which consists of six independent and two dependent dimensions set out in Table 9.4 below.

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**Table 9.4** Hofstede and Waisfisz’s organisational cultural dimensions

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(i) Means oriented
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Goal oriented	
<p>The key feature is the way in which work has to be carried out; people identify with the “how”.</p> <p>People perceive themselves as avoiding risks and making only a limited effort in their jobs, whilst each workday is pretty much the same.</p>	<p>Employees are primarily out to achieve specific internal goals or results, people identify with the “what”.</p> <p>Employees are primarily out to achieve specific internal goals or results, even if these involve substantial risks.</p>
(ii) Internally driven	

### Externally driven

Employees perceive their task towards the outside world as totally given, based on the idea that business ethics and honesty matters most and that they know best what is good for the customer and the world at large.

The only emphasis is on meeting the customer's requirements; results are most important and a pragmatic rather than an ethical attitude prevails.

### (iii) Easy going work discipline

Strict work discipline	
A loose internal structure, a lack of predictability, and little control and discipline. There is a lot of improvisation and surprises.	People are very cost conscious, punctual and serious.
(iv) Local	

Professional	
<p>Employees identify with the boss and/or the unit in which one works.</p> <p>Employees are very short-term directed, they are internally focused and there is strong social control to be like everybody else.</p>	<p>The identity of an employee is determined by his profession and/or the content of the job.</p> <p>Employees are long-term directed, they are externally focused.</p>
(v) Open system	

Closed system	
<p>Newcomers are made immediately welcome. The organisation is open both to insiders and outsiders. It is believed that almost anyone would fit in the organisation.</p>	<p>Newcomers not made to feel welcome. The organisation is not open to outsiders. It is believed that only insiders would fit in the organisation.</p>
(vi) Employee oriented	

Work oriented	
Members of staff feel that personal problems are taken into account and that the organisation takes responsibility for the welfare of its employees, even if this is at the expense of the work.	There is heavy pressure to perform the task even if this is at the expense of employees.
(vii) Degree of acceptance of leadership style	
This dimension tells us to which degree the leadership style of respondents' direct boss is being in line with respondents' preferences. The fact that people, depending on the project they are working for, may have different bosses, doesn't play a role at the level of culture. Culture measures central tendencies.	
(viii) Degree of identification with your organisation	
This dimension shows to which degree respondents identify with the organisation in its totality. People are able to simultaneously identify with different aspects of a company. Thus, it is possible that employees identify at the same time strongly with the internal goals of the company, with the client, with one's own group and/or with one's direct boss and with the whole organisation. It is also possible that employees don't feel strongly connected to any of these aspects.	

Source: Adapted from <http://geerthofstede.com/organisational-culture.html> – Accessed 20 March 2012

## 9.7 ATTITUDE AND VALUE CHANGE

Attitude change can be the result of changes in individuals' cognitions or behaviour: individuals themselves are then the active agents in attitude change. Change can also be induced by external factors: individuals are then the recipients of communications that influence their attitudes (Stephan and Stephan, 1990; Hogg and Vaughan, 1995).

In work context attitude and value change relate to climate and culture change with regard to various organisational and managerial factors. This often implies not only changing the values of employees, but the underlying values that form part of an organisations culture. When managers attempt to change the culture of an organisation, they are “attempting to change the people’s basic assumptions about what it is and is not appropriate behavior in the organization” (Griffin and Moorhead, 2012, p.518). Examples of such changes may comprise attempts to change values about performance as well changes from traditional to team based organisations.

### 9.7.1 The individual as active agent

Factors involved in the individual changing his/her attitudes include cognitive dissonance, persuasion and self-perception.

### 9.7.1.1 Cognitive dissonance

Cognitive dissonance refers to an imbalance in two or more of the individual's cognitions, that is, thoughts or beliefs, or cognitions and actions, which should logically be consistent with each other. Cognitive dissonance can occur when, for example, an individual who values pacifism is involved in military strategy in his/her work situation, or an individual who acknowledges that smoking is detrimental to his/her health works for a tobacco company. This imbalance causes tension, which the individual tries to reduce by employing mechanisms that can provide consonance.

The theory of cognitive dissonance was originally developed by Leon Festinger in 1957, and has generated much research. It brought attention to the significance of beliefs as components of attitudes (Hogg and Vaughan, 1995). The underlying assumption is that individuals seek harmony and consistency between their beliefs and their behaviour, as well as between other people's beliefs and behaviour. Festinger indicated four mechanisms that individuals possibly employ to handle dissonance, as discussed in the box below.

#### **Handling dissonance: Festinger's four methods**

Festinger proposed that individuals seek harmony and consistency between their beliefs and their behaviour, and between the beliefs and behaviour of other people. He observed four mechanisms that individuals could use to handle dissonance (McKenna, 1994; Robbins, 2001).

**Method 1:** Seeking new information to support one's beliefs and avoiding information that will increase dissonance

An individual who believes in supportive and cooperative communications in the workplace might find, on entering a new workplace, that there is a climate of indifference and aloofness. Rather than elaborating on this impression, he/she could look for factors beyond what is apparent and decide that communications are not sound, because the department consists of individuals of different races and backgrounds, and all are under the pressure of work schedules. By thinking this way, the individual could change a cognitive component of his/her attitude.

**Method 2:** Misinterpreting information that might increase

dissonance

The individual might misinterpret aloofness in the department by assuming that some members see colleagues of different races and backgrounds as threatening to their future success. By thinking this way, the individual could also change a cognitive component of his/her attitude.

**Method 3:** Finding social support for the attitudes one wishes to maintain by seeking out individuals with similar attitudes

The individual might befriend colleagues who share his/her beliefs and join them in leisure activities outside work. Here the individual would be trying to reduce dissonance by changing his/her behaviour.

**Method 4:** Playing down the importance of factors that contribute to dissonance

The individual could rationalise that racial and cultural differences are not significant, since acceptance of differences is a contemporary value in society. He/she could work towards facilitating a climate of cooperation in which grievances, aims and work schedules are openly discussed in, for example, group discussions. This would involve handling cognitive dissonance by changing factors in the environment.

The degree of dissonance an individual experiences varies from situation to situation (McKenna, 1994; Robbins, 2001). The need to reduce it depends on the significance of the factors causing dissonance, the degree of influence the individual has over these factors, and the rewards involved in changing or living with the dissonance. If the rewards in the dissonant situation are important to the individual, he/she might tolerate the dissonance. The renowned experiment by Festinger and Carlsmith in 1959 showed that the significance of payment influenced changing of dissonance. Some individuals were requested to lie to other participants and were offered 20 dollars in return. They had to say that tasks that they actually found dull were interesting. The offer of 20 dollars justified lying and dissonance was reduced. Individuals who were paid only one dollar to lie, found the reward insufficient to justify lying and experienced more cognitive dissonance because of lying. They handled the dissonance by starting to think that the tasks had actually been interesting, thereby changing their

attitudes to justify their actions (lying).

Handling dissonance involves making choices (McKenna, 1994). If the choice the individual makes again causes dissonance, the individual will, rather than regretting the choice, change his/her attitude to accommodate the choice. For example, a single mother who sees a woman's success firstly as being at home for her children, but has to work to support her family, might initially feel dissonance, which is repeated if she chooses a job because of financial rewards, but which is lacking in satisfaction. She might then change her attitude towards success, seeing it as bringing money home rather than staying at home.

### **9.7.1.2 Self-perception**

According to the Self-Perception Theory, introduced by Daryl Bem in 1972, individuals' attitudes can change through perception of their own behaviour. Individuals might, for example, decide that, although they have grievances about their jobs, they still have a positive attitude towards their jobs because of the many years they have been doing the work. Individuals therefore change negative attitudes or infer their real attitude from their behaviour.

Self-perception is applicable to attitude change if individuals have limited internal cues to account for unjustified behaviour, for example, if they do not have feelings that justify why their behaviour is not consistent with their opinions (Stephan and Stephan, 1990). Self-perception thus helps individuals to understand why they do something (Robbins, 2001).

## **9.7.2 The individual as recipient**

The persuasive appeal of the speaker who is trying to change the values and attitudes of the receiver rests on the characteristics of the speaker, the type of message, and channel of communication, context that the message is delivered in, as well as the characteristics of the receiver. The success of persuasive communication depends on the ability thereof to make the receiver listen to this and reflect on how the ideas in the message impact upon their current attitudes and values.

### **9.7.2.1 The credibility of the communicator**

An attitude is changed more readily if the source of information is regarded as credible. The credibility of an individual is determined by his/her credibility in the past, trustworthiness, expertise, authority, prestige, power to control the rewards involved in changing recipients' attitudes, and physical attractiveness,

likeability and similarity to the recipients.

The mass media can influence attitude change through, for example, advertising and political commentary.

If communicators are not perceived as highly credible, the messages they convey can still influence attitudes after some time. This is called the sleeper effect, in that the message rather than the source of the communication is remembered (Arnold, Cooper and Robertson, 1995).

In organisations, credibility is an aspect of management practice. Managerial credibility comes from a willingness to listen, consideration of proposals, allowing others the freedom to express feelings, toleration of mistakes, and ensuring that employees enjoy prestige and credibility in the organisation. Martins (2000) found that credibility is related to a trust relationship between employees and management.

### 9.7.2.2 Characteristics of the communication

Three characteristics of communication are the organisation, emotional content, and discourse of communications:

- The *organisation of the communication* is related to changing attitudes. Attitude change is influenced by messages that present only positive information (one-sided messages), and messages that present either positive and negative information (two-sided messages) about issues, a type of job or an organisation. One-sided messages are generally more effective if the recipient is neutral or already agrees with the message. Two-sided messages are generally more effective if recipients' attitudes differ from those of the communicator, as well as when propaganda or counter-information is involved.
- The *emotional content of the communication* is also related to changing attitudes. Fear-arousing messages can have a persuasive effect if they are not too intense and are relatively impersonal. Messages that evoke excessive fear tend to be ineffectual in that they have an immunisation effect, so that similar messages in the future will not elicit a reaction and might cause the communicators' motives to be viewed with suspicion (Maier and Verser, 1982). Messages evoking extreme fear can also lead to anxiety, which interferes with the perception of the factual content of the message. In contrast, messages evoking fear at a very low level might not capture attention and interest (Hogg and Vaughan, 1995). Eliciting fear can be effective if the message also indicates how the consequences of a fearsome

situation can be avoided, such as advertisements that not only show the drastic consequences of road accidents, but also indicate the role of safety belts. Communications that arouse guilt tend to result in compliance with an individual's request. Research has shown that if a researcher induces feelings of guilt in subjects, they will comply with future requests, such as requests that they participate in future research projects. Individuals who are not induced to feel guilt hardly ever comply (Hogg and Vaughan, 1995).

- *Discourse* is also related to changing attitudes. In discussion, debate and open expression of differences, the individual feels part of decision-making and can thereby become committed to changing attitudes. Research shows that when communications are aimed at changing central attitudes, the quality of well-thought-out arguments is important, whilst persuasive cues for quick information processing should be present if peripheral attitudes are approached. The effectiveness of discourse shows the power of language to convey attitudes to certain issues, such as racism, sexism or equality (Chryssochoou, 2004).

### 9.7.2.3 The situation

The situation includes the effects of approaching either an individual or a group in order to change their attitudes (Arnold, Cooper and Robertson, 1995).

If a group is largely divided with regard to the members' attitudes, change is more likely to occur through approaching individuals, rather than the group as a whole. If the majority of a group is in agreement with the communicator, addressing the group will be effective in swaying the small minority of members towards changing their attitudes.

Groups tend to form attitudes or opinions that are stronger than those that the individuals in the group originally held.

This effect is called group polarisation. It could be due to repeated exposure to an attitude voiced by group members. It could also be due to the escalation of strong views as one individual desires to be more influential than another and therefore posits a more extreme view. Group effects are also noticeable in the higher commitment to attitudes or opinions that are voiced publicly rather than privately.

Attitudes are not necessarily easily accessible, but are deduced from surveys. Attitude surveys in the workplace can reveal which factors in the work situation require change. Maier and Verser (1982) cite a survey showing that the sounding of a bell to announce rest periods was a source of irritation to workers, because

they associated it with the strict regimentation of a school. The substitution of the bell with musical sounds changed their attitudes.

## **9.8 SUMMARY AND CONCLUSION**

This chapter illustrated how attitudes, values, norms and culture act as motivating forces in people's perception of, and reactions to, other people. Attitudes are defined in terms of three components, namely cognitive, emotional and behavioural aspects. Values on the other hand are again that which we hold dear, an affective disposition towards a person, object or idea, something we recognise as good and worthwhile, and a personal belief or attribute about the truth, beauty or worth of any thought, object or behaviour. It is important to note that values appear as attributes of things and events themselves rather than as an activity of the self or as the result of such activity.

Values generally influence attitudes and behaviour. They are largely derived from three sources, namely through upbringing from our family and early socialisation, assimilated from our cultural upbringing such as cultural norms related to education, work and play, whilst others are derived from professional and legal codes. An individual's values are ranked in a hierarchy known as a value system which has the implication that different values are expressed uniquely in terms of their intensity according to the importance of the value to the individual. Milton Rokeach further distinguishes between terminal and instrumental values. Terminal values relate to the goals sought, whilst instrumental values refer to the methods that are acceptable to obtain the end goals.

Rokeach made a distinction between terminal values, which are the things individuals' value in their lives, and instrumental values, that relates to how they could achieve these. Spranger identified six value-orientations that form part of every individual's personality, namely theoretical, economic, social, power, religious and aesthetic value-orientations. Schwartz extended the list to ten values that seem to cover the full range of human values. Values are the shared ideas about what is true, right and beautiful, and they influence norms, which are the ideas members of a culture share about the way things ought to be done.

Important work-related attitudes are job satisfaction, which is a predominantly positive attitude towards the work situation, and organisational commitment, which refers to the degree to which the individual identifies with his/her employing organisation and its goals.

Culture is a shared system of norms and values that guide how the members of a particular society think and behave, and which refers to the meanings and ways of life that characterise a society. Schein made an important contribution to the study of culture identifying three layers that reflect the degree to which the different cultural phenomena are visible to the observer, namely artefacts, espoused norms and values, and the shared basic assumptions at the core of a culture.

A distinction is made between national and organisational culture. Geert Hofstede (1980, p.25) defined national culture as “the collective programming of the mind which distinguishes members of one human group from another”, and identified six dimensions that can be used to distinguish different cultures from one-another. An alternate model of national culture is the cultural framework of Trompenaars and Hampden-Turner who identified seven dimensions. Whilst the cultural differences between nations predominantly exist on the level of values, cultural differences amongst organisations exist on the level of practices which are more tangible. Hofstede and Waisfisz’s developed a model of organisational culture that utilises eight different dimensions to distinguish between different organisational cultures.

It is possible to change attitudes and values through changes in individuals’ cognitions or behaviour. Individuals can act as active agents in attitude change, whilst change can also be induced by external factors, where individuals are then the recipients of communications that influence their attitudes. Key issues are Festinger’s concept of cognitive dissonance. This is when there is an imbalance in someone’s cognitions, which creates tension within the person. This in turn causes an individual to change one of these cognitions. In the case of external communications aimed at attitude change, the key issues relate to the credibility of the communicator, characteristics of the message and the situation under which the communication takes place.

## 9.9 ASSESSMENT ACTIVITIES

### Multiple-choice questions

1. According to Spranger’s different value orientations, the \_\_\_\_\_ man is primarily orientated towards that which is useful.  
a) aesthetic  
b) economic

- c) social
  - d) theoretical
  - e) political.
2. Societies that are highly competitive and admire values such as achievement, heroism, assertiveness and material reward for success are an example of Hofstede's \_\_\_\_\_ cultural dimension.
- a) masculine
  - b) power distance
  - c) individuality
  - d) uncertainty avoidance
  - e) long-term orientation.
3. According to Hofstede and Waisfisz's organisational culture model, an organisation that emphasises meeting the customer's requirements and focuses on results is \_\_\_\_\_.
- a) an open system
  - b) has a professional culture
  - c) is means-orientated
  - d) is externally driven
  - e) is work orientated.
4. \_\_\_\_\_ refers to the mutual expectations people have of one another in a work relationship.
- a) organisational commitment
  - b) ego investment
  - c) psychological contract
  - d) self-transcendence
  - e) job satisfaction.
5. John smokes and recently saw an advertisement about the cancer causing properties of cigarettes. However, he ignores this, as he states that this only happens to some smokers. According to Festinger's cognitive dissonance theory, he is \_\_\_\_\_.
- a) seeking new information to support his beliefs and avoiding information that will increase dissonance
  - b) misinterpreting information that might increase dissonance
  - c) finding social support for the attitudes one wishes to maintain by seeking out individuals with similar attitudes
  - d) playing down the importance of factors that contribute to dissonance
  - e) b and d.

## **Answers to multiple-choice questions**

1 = b; 2 = a; 3 = d; 4 = c; 5 = e

## Issues for discussion and practice

1. The HIV/Aids unit on campus wants to change the attitudes of students relating to risky sexual practices as these contribute to the spread of the disease. They plan to invite a speaker who is HIV positive. Explain the main factors that the speaker will need to consider in order to ensure that his/her message is effective in changing the attitudes of students. Focus on the both the characteristics of the message and of the speaker.
2. Talk to a student from another country and use Hofstede's dimensions to compare his/her culture to your own.
3. Explain how specific values can impact on the success of an organisation.
4. Explain the main differences and similarities between the theories of Geert Hofstede and that of Trompenaars and Hampden Turner.
5. Discuss how norms and values relate to one another.
6. John smokes 20 cigarettes a day. However, the other day he watched a programme on television that dealt with how smoking causes lung cancer. How can John deal with the dissonance caused by this conflicting information?

### CASE STUDY: APPLE'S CULTURE OF SECRECY

With the recent passing of Steve Jobs, there has been an intense spotlight focused on both the man and the company he built. And whilst much of the attention has rightfully been focused on Jobs' passion and creativity as well as the remarkable period of innovation he presided over, there is another factor that has flown somewhat under the radar. That factor is the critical role that company culture played in Apple's success.

Apple is famous for its mafia-like code of silence, but a new book by Fortune's Adam Lashinsky, *How Apple works: Inside the world's biggest startup*, lifts the lid on just how far the company is willing to go to keep its projects secret. Meetings are often cloak and dagger affairs, whilst new staff often don't know their real job until day one. He writes that, "To discuss a topic at a meeting, one must be sure everyone in the room is 'disclosed' on the topic, meaning they have

been made privy to certain secrets. 'You can't talk about any secret until you're sure everyone is disclosed on it,' said an ex-employee. As a result, Apple employees and their projects are pieces of a puzzle. The snapshot of the completed puzzle is known only at the highest reaches of the organization."

The book also reveals that unlike Google, Apple doesn't give out free lunches to its employees unless it's on your first day. Little wonder the company has \$80+ billion of stockpiled cash coming out of its ears, the giant skinflints!

The first thoughts that come to mind when discussing Apple products are words such as simple, elegant, and innovative. This is no accident as these values were critically important to Steve Jobs, and he instilled them into the Apple company culture.

These core values are the reason that Apple products have been so consistently excellent, and they are the reason that you can walk into any Apple store across the world and have essentially the same experience.

10 Ways to think differently – Inside Apple's cult-like culture:

- Empower employees to make a difference. Steve Jobs says employees can make a difference, and in a cult-like way, they believe it. "Make a dent in the universe" is somehow an entirely realistic goal.
- Value what's important, not the small details. The organisation is a fun place to work with loose rules. Employees mostly come and go as they please as long as they accomplish 110% of their goals.
- Love and cherish the innovators. Apple's most valuable assets are creative and productive employees.
- Do everything important internally. Everything important is under one roof: industrial design, operating system, hardware design, even the sales channel.
- Get marketing. Apple spends a great deal of effort divining the next big thing – figuring out what people want – even when they don't know it themselves. They don't use focus groups or research. They're their own focus group.
- Control the message. Few companies truly understand communications and PR the way Apple does. A big part of its

formula for creating a buzz like no other company is its famous secretiveness.

- Little things make a big difference. During the iPhone 4 launch, they brought their employees good food. During another launch they had a masseuse and another store had a kiddie pool full of goldfish as a “Zen thing”.
- Don’t make people do things, make them better at doing things. Apple are either operating at the top of their game, or think they are.
- When you find something that works, keep doing it. The way Apple operates today, is not some grand design by Jobs or his management team. They found their way one step at a time. The difference is that, the way Apple’s organised, it can rapidly adapt to a new idea or process that works.
- Think differently. Apple doesn’t do anything according to anyone else’s timetable. Its product launches and company events happen when it suits Apple.

Source: Based on Mintz, 2011; Moreland, 2011; Smith, 2012; Tobak, 2011

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1. What are the main factors that Apple would need to consider if they wanted to change an aspect of their culture?
2. Which work-related attitudes would be important to Apple and why?
3. Which of Spranger’s value orientations would likely have determined Steve Jobs’ view of the world?
4. Based on the culture that Steve Jobs engendered in Apple, which of Schwartz’s values were likely important to him?
5. Provide examples of two norms that form part of Apple’s culture.
6. Use Schein’s model to indicate the three levels of Apple’s culture with practical examples of each.
7. Use Hofstede’s and Waisfisz’s Organisational Culture Model to plot the culture of Apple. As far as possible, motivate where you have plotted Apple on the different dimensions.

## **CHAPTER 10**

# **Prosocial behaviours, aggression and conflict**

*Ziel Bergh, Michelle May and Cebile Tebele*

## 10.1

## [Introduction](#)

## 10.2

[The social nature of human behaviour](#)

## 10.3

## Descriptions of attraction and affiliation

## 10.4

## Explanations for and influencing factors in attachment behaviours

**10.5**

## Aggression

## 10.6

## Causes of workplace aggression

## 10.7

Conflict

## 10.8

## Summary and conclusion

**10.9**

## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- discuss explanations for attraction, affiliation and aggressive behaviours
- explain determinants of interpersonal attraction and aggression
- define attraction, affiliation, aggression and conflict
- explain the role of attraction, affiliation, aggression and conflict in relationships
- differentiate between types of aggression and conflict
- compare the meanings of workplace aggression, bullying and harassment
- discuss methods in the management of aggression and conflict.

### 10.1 INTRODUCTION

The interaction between individuals, and in and between groups, may be characterised by positive and negative aspects. However, in the diverse society of South Africa, sociopolitical change and the maintenance of productive lives necessitate that individuals and groups interact in positive ways. For people in organisations to work together harmoniously and effectively, they will have to feel affiliated, have a sense of belonging, and solve aggression and conflict productively.

Based on what appears in the South African media, it seems as if aggression and conflict, and related expressions such as anger, road rage and frustration, have become the norm. People are in a way forced to accommodate these phenomena as part of their daily lives. In the workplace, there are conflicts in and between organisations, between unions and management, in and between work groups, between supervisors and subordinates, and between colleagues. People are not only victims of aggression and conflict, they might also feel and act aggressively themselves from time to time, and a person's own conduct can also cause aggression, conflict and frustration. But whilst aggressive and violent incidents have more news value, there are also many examples of good relationships and positive and productive cooperation between individuals, and in and between groups.

The scenarios presented here are examples of interpersonal attraction, affiliation, aggression and conflict, which are important topics in the fields of social psychology and Industrial and Organisational Psychology (Kowalski and Westen, 2011). Interpersonal attraction and affiliation (feelings and acts of belonging and liking) are examples of “prosocial behaviours”, that is positive expressions of social interaction, as compared to so-called “antisocial behaviours”, for example, aggression, conflict and expressions of bias, discrimination and racism.

It should however be noted that sometimes seemingly good relationships may contain aspects of unhealthy manipulation, whilst certain types of aggression and conflict may be necessary in certain situations, and can be managed constructively. Interpersonal relationships and the related aspects of attraction, affiliation, aggression and conflict will also contain many emotional and cognitive considerations from a person’s own frame of reference, such as culture, personality and personal attributes, socioeconomic status and other environmental, social, situational and even external influences.

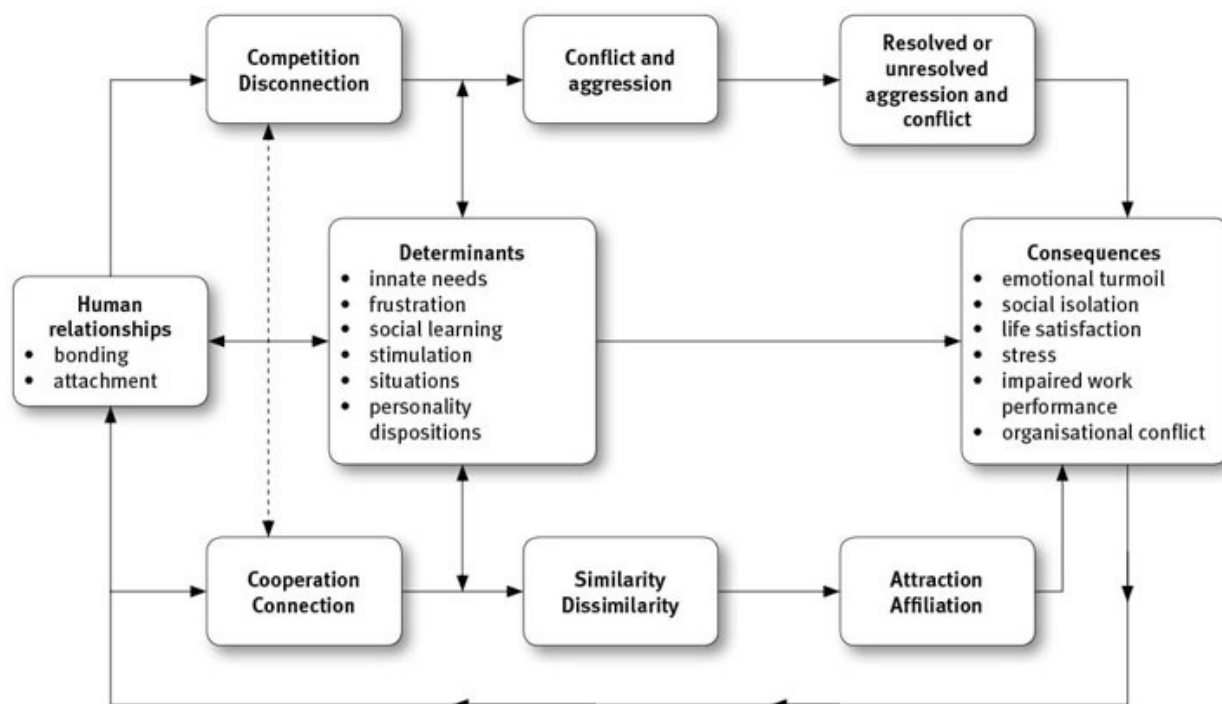
The *aim* in this chapter is to provide an understanding of the social nature of human behaviour, which includes prosocial and less positive social interactions that will either promote or inhibit interaction between individuals, and in and between groups and organisations.

## 10.2 THE SOCIAL NATURE OF HUMAN BEHAVIOUR

The topics in this chapter fall into the field of social psychology, which entails the scientific study of the *social context of human behaviour*, or how the thoughts, feelings, actions or behaviour of individuals in dyads and in groups are influenced by the real, implied or imagined presence of other people. The social nature of human behaviour and personality is recognised in theories, assessment, research and applications (Hogg, 2000; Koole, Jager, Van den Berg, Vlek and Hofstee, 2001; Gardner, 2002; Baldwin, 2005; Cavanaugh and Blanchard-Fields, 2006; Cervone and Pervin, 2008). Many topics in psychology, such as personality, communication, interpersonal relationships, human development, self and identity, counselling and therapy, group behaviour, and organisational psychology, have an emphasis on social behaviour. The *need to belong* and social interaction is arguably the most important determinant of being human, in defining personality and a sense of self, and of the health and adjustment of

individuals and societies at large (Kqwalshi and Westen, 2011). The dependency of people on one another and on groups with regard to many needs is a life-long process as people pass from the immaturity of childhood to the wisdom of old age (Cavanaugh and Blanchard-Fields, 2006).

In various applied fields, such as I-O Psychology, psychologists and human resources experts need to understand the nature and dynamics of social behaviour in order to enhance social interaction in organisational functioning and transformation, leadership, work groups, employee relations and occupational wellness. Figure 10.1 indicates the interaction between relationships, prosocial behaviours, aggression, conflict, influencing factors and the possible positive or negative consequences for employees, groups and the organisation as a whole. Relationships are, amongst other things, based on acquired ways of interacting (for example, types of attachment behaviours), which are influenced by many factors.



**Figure 10.1** Relationship behaviour and processes.

In psychology, attention is mostly given to interaction at the individual, interpersonal and group levels, but increasingly attention is also being paid to the ideological nature of social interaction. Systems of meaning attributed to

relationship issues, such as racism, sexism, gender roles and ethnicity, can determine relationships between individuals and groups, often leading to hostility and conflict, bias, stereotyping, prejudice and discrimination (Foster, 2003).

Psychology should not endorse any discriminating ideology, even if it is taught and practised under a prejudiced sociopolitical system. Psychology worldwide, including psychology in South Africa, does have traces of prejudice and bias, aspects which continue to be recognised and addressed (Duckitt, 1992; Durrheim, 1997; Nicholas, 2003; Hook et al., 2004)

### 10.3 DESCRIPTIONS OF ATTRACTION AND AFFILIATION

Interpersonal attraction and affiliation refer to people's attitudes and feelings of *liking and attraction* for each other, and their need and actions to have social relationships in their personal and work lives. This explains why couples have chosen each other, and why individuals and employers (organisations) choose one another in an employer-employee relationship; they are attracted to one another for some reason.

*Prosocial behaviours* (also referred to as "helping behaviours" and "altruism") further explain people's actions of empathy and the social responsibility to assist other people for mutual benefit and to improve some kinds of situation or circumstance (Bierhoff, 2001). The concept of prosocial organisational behaviours, or organisational citizenship behaviour, also implies being highly committed to and engaged with one's work, rather than executing only the expected tasks in a job description. This concept also includes interpersonal behaviours, for example cooperation (Cullen and Sackett, 2003). Positive or negative relationship behaviours certainly contribute to communication within organisations that will influence how and if employees work and stay together, achieve their set goals, and satisfy their own and their customers' needs.

Interpersonal relationships and social skills are based on people's *fundamental social needs and interests* to belong, to affiliate with others, and to bond in close and enduring relationships. These fundamental social skills form the basis of their daily interactions in personal and work life.

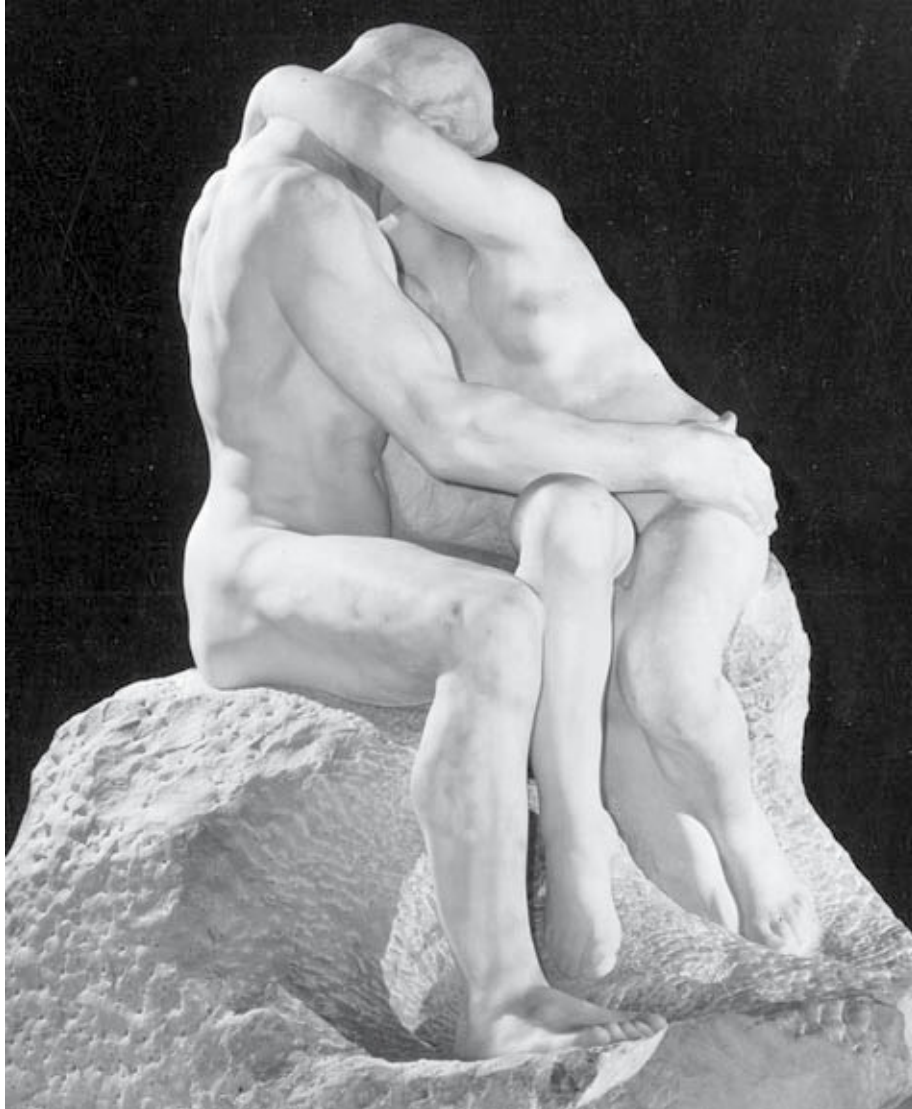
Interpersonal attraction and affiliation are related and complementary and, even, inclusive concepts to explain why people are attracted to one another, and

why people want to belong in a relationship (Gardner, 2002). If people are attracted to a situation or to one another, affiliation behaviours will be enhanced. Strong needs to affiliate might facilitate or contribute in the process of interpersonal attraction.

Attraction in relationships may, of course, also be negative, as in the forms of dislike, hostility, aggression, hatred and unhealthy manipulation. The intense involvement and commitment in close relationships also highlights the possible disruptive consequences of isolation, break-ups and withdrawals in relationships, such as divorce or leaving a work organisation as a result of resignation, dismissal, lay-offs or downsizing.

### **10.3.1 Attraction**

Attraction refers to *feelings of liking*, the mutual positive, physical, social and psychological attributes and behaviour of people, which make them approach other people, or be approached, and have positive feelings towards others. Attraction may range from feelings of friendliness and liking, leading to more serious commitments in friendships, to intense feelings of physical and psychological intimacy and love. The various forms of intimacy are differentiated from attraction in that intimacy is associated with a depth quality or intensity of feelings in relationships. Relationships involving intimacy are fewer, but are characterised by caring, understanding and valid or supportive communication (Cavanaugh and Blanchard-Fields, 2006; Flett, 2007). People with insecure, avoidant, ambivalent and anxious attachment styles may have problems in maintaining intimate relationships, because of a tendency to withdraw, a problem with constructive problem-solving, and an inability to provide emotional support to their partners (Mikelson, Kessler and Shaver, 1997; Weiten, 2011) (see [Chapter 4](#)).



**Figure 10.2**      Attraction.  
                         *The Kiss* by Auguste Rodin.

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### 10.3.2 Affiliation

Affiliation denotes the social need, motive or *desire to be with others*, to establish and maintain many social contacts and relationships, with an individual or in a group, often irrespective of feelings of like or dislike towards others (Gardner, 2002).

People's attempts to belong, and the way they view relationships, are determined by their acquired world views, their secure or insecure bonding, and their attachment styles (Bowlby, 1988; Parkes, Stevenson-Hinde and Marris,

1991; Duck, Acitelli, Manke and West, 2000; Mills and Duck, 2000; Mikulincer and Shaver, 2005; Nelson and Cooper, 2007; Flett, 2007; Cervone and Pervin, 2008). The type of bonding between mother and child especially, but also with other important people in early life, will have a lasting effect on friendships, romantic attachments and other types of relationships, and even on the quality of adjustment and performance in later life. The way affiliations are defined between two people will determine the type of control in the interaction (that is, who will determine the interaction, communication patterns and control in the relationship).

People with immature or insecure forms of interpersonal reactions, such as overdependence, jealousy and aggressiveness, may still be depending on forms of behaviour that worked as infants. However, in an adult world such behaviours are unacceptable and may cause opposition (Buss, 1995b; Craig, 1996; Baldwin, 2005; Cervone and Pervin, 2008).

## **10.4 EXPLANATIONS FOR AND INFLUENCING FACTORS IN ATTACHMENT BEHAVIOURS**

According to social-psychological theory, perception (involving cognitive and emotional assessments of people and situations) should always be taken into account when considering and evaluating social interactions. Baldwin (2005) asserts that interpersonal interaction is fundamentally about social cognition and vice versa. In other words, people think about their important social relationships, and how to become involved in and maintain the good ones, and how to change the negative aspects in relationships (Kowalski and Westen, 2011). These perceptions may contain many emotional and cognitive considerations from a person's own frame of reference, such as personality traits, knowledge, physical features, skills, socioeconomic status, preferences, attitudes and values.

A related principle involved in the formation and maintenance of relationships is the need to feel in control (that is to have balance or homeostasis in relationships). This means that one can enjoy one's associations with other people rather than be uneasy about them. The following classification is an integration and interpretation of many ideas on interpersonal attraction and affiliation behaviour. It will also explain aspects of aggression and conflict in relationships.



**Figure 10.3** Beginning a relationship?

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#### 10.4.1 Similarity and dissimilarity

Most research, in African and other countries (as summarised in Myers, 1996; Kowalski and Westen, 2011; Weiten 2011) supports the fact that *real or imagined similarity*, not only in appearance but also in personality traits, values, attitudes, interests and abilities, is a forceful factor in attraction and affiliation, much more so than dissimilarity. As the saying goes, “Birds of a feather flock together”. According to what Byrne (in Hogg and Vaughan, 1995) named the *Law of Attraction*, liking between people will be in “proportion to the similarity” between them in terms of attitudes and other aspects. The higher the matching or similarity, the stronger is the attraction. Dissimilarity will mostly decrease affiliation or liking, or, at the most, not contribute to more satisfactory relationships (Smeaton, Byrne and Murnen, 1989; Singh and Tan, 1992; Krueger and Kaspi, 1993).

Similarity can be explained according to various theories, for example the

social-exchange theories of, amongst others, Homans, Heider, Foa and Foa, Thibaut and Kelley, and Festinger and Kelly (Hogg and Vaughan, 1995), as well as social-comparison theories (Festinger, 1954). According to these approaches, interpersonal relationships are based on the ideas of cost and reward ratios, equity, fairness and distributive justice – or the perception of being treated fairly in comparison to others.

#### **10.4.1.1 Similarity through social exchange and comparison**

The term *social exchange* refers to how people execute strategies for interaction, based on the principle of the *cost-and-rewards ratio* in relationships. People strive for homeostasis and, according to the hedonistic principle, to have balance and control in their lives, and to maximise pleasure and avoid pain as far as possible. People have many reasons to find relationships rewarding, such as information, goods, services, money, status and love. People establish close ties when the benefits of their involvement, such as emotional happiness, minimum stress, pleasure, acceptance and, even, physical and economic rewards, exceed the costs or possible negative consequences, such as unhappiness and financial losses. People select individuals, groups and situations in which they will be best rewarded, and they will terminate relationships in which the costs exceed the rewards.

In much the same way, the idea of *social comparison*, which also contains elements of social exchange and equity (being treated fairly and having equal status as other people), states that one evaluates or assesses one's perceptions, opinions, attitudes, characteristics and actions by comparing them with those of people who are similar to one or who are in similar situations. The value for individuals is to test, for example, how their physical and other attributes are perceived and how their performance status is assessed. Alternatively people could use comparison to avoid fear and anxiety, if they found that other people were more or less in the same situation. If a person finds a favourable comparison or equity, liking and affiliation might follow, or the person might accept a situation or decision as fair.

Both the cost-and-rewards ratio and social comparison concepts may explain why people remain in unsatisfactory associations, such as an unhappy marriage or friendship, or an unfulfilling job, because in terms of possible “investments” no better option is available. A similar explanation would apply in cases where an employee is unhappy when he/she feels that a dismissal is unfair, when an application for a job or promotion is unsuccessful, or when a salary increase is

low or non-existent.

The behaviours between two parties (for example, an employer and a labour union) negotiating on employee benefits will also be based on the principles of minimising costs and maximising rewards and on social comparison. The communication conveys the message that, “If you are good to me and treat me like you treat other employees, I will be friendly to you.” Or the message could be that, “If I compare, and feel that I am treated as my colleagues are, I may support you in your decisions.” However, in these and other relationships, parties will be most unhappy if they feel that they are victims of inequitable behaviours.

### **The role of biology in influencing prosocial behaviours**

Decision-making in the face of conflicting ethical demands has been of interest to researchers. In addition to the traditional philosophical perspective where emphasis was on reasoning, in such decisions, recent work in social neuroscience have found how the brain functions when making moral judgement and linked to prosocial emotions such as empathy, guilt, and pity. Using an innovative combination of behavioral research and pharmacological intervention, the role of serotonin in ethical decision-making is highlighted (Tost and Meyer-Lindenberg, 2010).

Now comes the question – how does serotonin promote both prosocial and antisocial behavior?

Increased serotonin makes individuals less likely to endorse moral scenarios that result in the infliction of personal harm to others. Crockett, Clark, Hauser and Robbins (2010) noted a clear bias against the emotionally salient behavioral option (personal harm), thereby confirming that enhanced levels of serotonin “boosts” aversive emotional reactions linked to the possible harm of others. Citalopram, a chemical component of serotonin, also increased the likelihood of accepting unfair offers. This is consistent with the interpretation that increased serotonin made subjects more likely to tolerate behaviour that violates an ethical imperative (fairness) because punishing it would have (financially) harmed fellow co-players. With these convergent observations, the study by Crockett *et al.* (2010) demonstrates that enhanced serotonin sways moral

judgement and decision-making toward antisocial behaviour, whilst lower levels of serotonin in brain activity result in prosocial behaviours.

This highlights the aspect of biological processes being involved in prosocial and ant-social behaviour, and not only just situational factors.

#### **10.4.1.2 Types of similarity and dissimilarity**

The similarity hypothesis concerns mutual liking or reciprocity (Weiten, 2011). People will like people who like them or are like them. *Reciprocity* refers to mutual liking, where the experience, feeling and perception of attraction in one person is confirmed or returned by the other party. In reciprocity, negative feedback will influence interaction more than the feedback of positive aspects.

In the performance management of employees it is necessary to emphasise positive aspects, rather than to offer criticism only, which will enhance feelings of liking between employees and employers. Positive feedback must, however, be genuine and reflect the true situation. A false sense of esteem will be created, for example, if a supervisor, out of loyalty only, compliments a colleague whose unacceptable behaviour is observed by others. Yet people may react positively to flattery, if they assess that such gestures are not threatening or not intended to achieve some disguised or dishonourable motive.

#### **The influence of perceptions on reciprocity: Curtis and Miller's experiment**

Curtis and Miller (1986) found in an experiment that participants, after meeting for only five minutes and then being fed false information about their mutual liking, reacted favourably towards one another only because of a belief or perception that they were liked, a type of "self-fulfilling prophecy".

The opposite can also apply. If one thinks that someone does not like one, one's attitude towards the person could be negative too. Some people are better at handling negative feedback and might still respond positively afterwards.

People's efforts to create new relationships after painful and ego-shattering experiences (such as losing a job, getting divorced, or the

break-up of a long friendship) might be because they need a trusting and meaningful association to rebuild confidence. People's likes or dislikes towards others may also be a function of self-esteem and attachment needs (such as a need stemming from a feeling of insecurity, or a need for power and control).

When thinking of an ideal partner, people may have their own preferences with regard to traits and other qualities that they think would be ideal in a partner or relationship, for example preferences for beauty, wealth and certain values. Similarity is also associated with *genetic similarity*, in which people may unconsciously or “intuitively” spot similarities that may activate attraction and liking behaviours. Rushton (1989) even suggested that people are unconsciously or instinctively attracted to certain others because they have the same type of genes. Such people will manifest similarity cues in the form of similar attitudes and behaviour, which might mutually attract them and result in friendships and romantic associations. Through association and learning, such “affiliation genes” will be internalised, become part of their cultural heritage, and be transferred to future generations. Bornstein (1989) asserted that this type of biological determination might cause certain people to be attracted to each other because behaviours seem familiar to them.

Related to the theory of similarity is the idea of *optimal dissimilarity*. This states that a person will find other people who are slightly different and even opposite from him/her most attractive, because the differences may represent some interactional novelty and complementarity. *Complementarity* refers to the possibility of attraction because of opposite or different features in people, and at first glance it seems as if opposites will repel each other and lead to negative or unhappy associations. Complementarity, however, can be a source of attraction if such opposing features in people fulfil the other's needs, and if people can find a fit between their differences (Franzoi, 1996). For example, a very outspoken and assertive person may choose a very quiet and reserved spouse, or a highly productive company may appoint a manager who, according to his/her style and work record, primarily emphasises the happiness of people in their work.

Kerckhoff (in Wrightsman, 1972) maintained that lasting interpersonal relationships are characterised by three stages:

1. Firstly, the parties must assimilate sociological and demographical disparities (status, religion, race, age, etc.).

2. Secondly, they must then reach agreement on value orientations.
3. Finally, they must come to terms with their differences in various areas.

Kerckhoff asserted that, in the final analysis, complementary needs are a cardinal requirement for binding relationships.

More research is necessary to confirm complementarity as a reason for affiliation, except for gender, which is a natural opposite. With regard to the latter, for instance, heterosexual men all over the world prefer younger partners, whilst females prefer men older than themselves (Buss, 1989; Feingold 1992). In both these instances, the complementarity exchange satisfies status needs: men satisfy their desire for beauty and women satisfy their need for higher social status, which older men are supposed to provide (Davis, 1990). To satisfy status needs, women will even choose less attractive, but older and more mature men, but it seems men will not easily select a less attractive and older woman for status only. This type of finding may well fit in with a sociocultural approach (Howard, Blumstein and Schwartz, 1987) which relates women's preference for higher-status males to women's exclusion from power and achievement in many areas. By selecting men with status, they can improve their low-status role and share power and status through men. If this view is true, the empowerment of women in many walks of life may also cause a change in complementary preferences – men may well start to prefer older, less attractive women with more power and status, whereas women may start to prefer men younger than themselves, who are more attractive but have less status.

A sociobiological view (Kenrick and Trost, cited in Franzoi, 1996) holds that men select younger women as they wish to have genetically attractive features in their offspring (and these may be more apparent in younger women), whilst women's preference for older, more established men is to ensure sufficient resources for themselves and their offspring.

Most research indicates similarity as a reason for attraction to be a much more persuasive and logical explanation than complementarity. Many similarity variables have been positively related to attraction, whilst few complementarity factors have been verified. Complementarity also implies dissimilarity, and many studies found dissimilarity to cause dislike. However, some of these studies maintain that some differences will always exist, such as cultural differences and racial prejudices, because these are facts of life (Franzoi, 1996).

People may initially even have opposite features and needs, but the effects of close proximity in relationships will often create similarity, even if these are based on consensus or compromise – these often being the trademarks of

relationships during negotiations in labour and political disputes.



**Figure 10.4** Reciprocity and complementarity.

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In general, *dissimilarity* implies that the larger and the more differences that exist between people, the more intense the feelings of dislike could be. In the *repulsion hypothesis* it is assumed that serious dissimilarity in attitudes and other features may repulse people up to a point of avoiding or disliking certain people. Felmlee (1995) suggests that in some cases the same factors that initially attracted partners in ideal or preferred relationships may change in meaning to partners and develop into a situation of fatal attraction and total break-up, because initial preferred attributes become annoying. For example, an intimate and sweet partner can start to seem too clingy, and a funny, outgoing partner can start to seem too brash.

The aspect of *uniqueness*, imprinted in individuals and groups, may also inhibit social attraction between groups, in that people sometimes tend to believe that strangers will disagree with them on issues of which they think these strangers know nothing. McFarland and Miller (1990) found this to be a “*false uniqueness effect*”, as people’s own knowledge of things is often not unique. Related to this concept is the “effect of *false consensus*” (Marks and Miller, 1987), the belief that others share one’s beliefs and opinions, or that others like one or think well about one. If one learns the opposite, such an experience may decrease attraction. In both instances, whether one thinks others do or do not share one’s knowledge or opinions, the obtaining of knowledge, for oneself or to inform other people, may improve social attraction if such knowledge contributes to more realistic perceptions and attitudes about oneself and others.

#### **10.4.1.3 Similarity in personality and personal factors**

Similarity, of course, may also involve more direct comparison of features, such as personality traits, physical appearance, interests, behaviours and attitudes (Krueger and Kaspi, 1993).

Similarity of personality traits as a basis for initial attraction and longer associations is indicated by findings that close friends and married couples reveal close parallels in personality traits (Caspi and Herbener, 1990). When people are attracted to one another because of similarities in physical attractiveness, they may associate positive personal qualities to such similarity in order to affiliate (Anderson and Bem, 1981; Sprecher and Duck, 1994). Robins, Caspi and Moffitt (2000) assert that, though each partner’s personality might influence relationship quality in some way, both party’s personalities contribute to the coherence of the relationship.

#### **Recognising similarities: the changing attitudes across cultural and social boundaries**

When people agree on things based on similar attitudes, attraction and affiliation are enhanced (Chapdelaine, Kenny and LaFontana, 1994). Some researchers maintain that similarity in attitudes and values about, for instance, politics, religion, education, recreation, marriage, sport, work and money, are stronger determinants for lasting relationships than physical attractiveness, which is often the first impression when new associations are made.

Research also indicates that racial prejudice between groups all over the world is diminishing (Argyle, 1992). Recognition of similarities, which can be facilitated by affiliation, for instance, working together and staying in similar environments, is one factor that can change attitudes across cultural and social boundaries (Insko, Smith, Alice, Wade and Taylor, 1985; Baron and Byrne, 1994).

Other personal factors that may be utilised in similarity comparisons are demographic similarity (such as age, race, socioeconomic status, gender, and religion), as well as interests and abilities (Whitbeck and Hoyt, 1994). Shared interests or activities have been shown to be a binding factor in men's selection of male friends. Women may prefer a female companion of similar values to talk to about intimate issues (Hays, 1985). Duck and Wright (1993), however, found that both males and females often associate just to talk, and do not differ greatly in the type of relationships chosen. Regarding abilities, it seems as if women and men may readily associate with others whom they consider intelligent.

In the work context, organisational attributes also "attract" employees by presenting the characteristics of the organisation as attractive to possible applicants. People who find a match between their own attributes and a specific organisation will apply for a job there and, if selected, accept the job offered (Furnham, 1995).

With regard to *physical beauty* there is a vast body of research evidence to indicate that people are attracted to people's beautiful appearances, such as a pretty face or an attractive body, voice, hair, manner of walking and talking, body weight and length, clothing and use of cosmetics. This fascination with human beauty might be based on real qualities, but could also be imagined, or an artefact of images and conditioning from "beauty industries" such as the fashion industry and Hollywood. These "appearance perceptions" are responsible for correct perceptions of people, but often also for inaccurate, positive and negative social stereotypes, vividly expressed by the cliché: "Beauty is in the eye of the beholder."



**Figure 10.5** Beauty is in the eye of the beholder.

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Perceived beauty is often translated into a physical-attractiveness stereotype or “physical-attractiveness halo effect” stating, “What is beautiful is also good” (Berry and Miller, 2001). In terms of traits and competencies, it is a fallacy that beautiful people possess better or worse personality traits and competencies than less attractive people. Attractive people, in some instances, might acquire better social and other skills because of more social contact and exposure to better opportunities and the rewards (praise and compliments, for example) that arise from such contact (Feingold, 1992). However, real or imagined beautiful people are often judged favourably and perceived to have good characteristics and qualities. Less beautiful people may be seen in a negative or less favourable light. It seems as if younger less attractive people have diminished control beliefs, whilst older less attractive people may have higher control beliefs, because they may put in more effort to control their social environment in order to compensate for the social barriers created by their less attractive physical appearance. However, stereotypes such as blonde women being unintelligent, red-haired women being moody, or pretty women being more materialistic are misleading clichés, although they can influence decisions and behaviour in others.

Favourable or unfavourable impressions, based on physical beauty only, often serve as a stimulus for initial and further affiliations in the personal or work

context (Baron and Byrne, 1994; Franzoi, 1996). Dating behaviours are also said to be associated with the similarity of partners regarding physical attractiveness (Zajonc, Aldermann, Murphy and Niedenthal, 1987).

Perceptions of beauty in men and women, and an emphasis on body image, are influenced by the cultural and commercial emphasis on physical attractiveness. In many societies people are conditioned to believe that body image is a part of self-identity development, hence the overemphasis, especially by some women, on dress, cosmetics, diets and being slim. In general, men are less worried about physical attractiveness in themselves than about being physically strong. However, in romantic relationships men may give more consideration to physical attractiveness, a phenomenon verified in many cultures (Buss, 1995b). In many women though, from childhood into adulthood, an unsatisfactory body image may have lasting effects, such as anxiety about how others assess their physical attractiveness (Hart, Leary and Rejeski, 1989). They may even experience appearance anxiety, which relates to a fear of being judged negatively when being observed by others in various situations (Dion, Dion and Keelan, 1990).

Perceptual differences of physical attractiveness also relate to standards, for which little agreement exists amongst individuals and within groups. Such criteria are often determined by cultural norms and situations. In general, female beauty is emphasised more than male attractiveness, and men are attracted more by female beauty than women are responsive to male attractiveness (Feingold, 1992; Berry and Miller, 2001; Buunk, 2001). In males, mature facial features, and in women, youthfulness, are also generally regarded as standards for attractiveness (Cunningham, Barbee and Pike, 1990). This aspect may well be a problem for women, especially older women, when competing with males or younger females in the labour market. The so-called “Evolutionary Theory” (Archer, 2001) states that men may use physical attractiveness in their partner preferences, for example, youth, with regard to romantic purposes and for producing healthy offspring. Women, in contrast, may have learned over time to select men who are high in status and dominance to best provide the necessary resources for child-rearing purposes, which also explains why women rate wealth and status higher than men do (Buss, 1989; Feingold, 1992). Cunningham, Roberts, Barbee, Druen and Wu (1995) established that criteria for physical-attractiveness selection are quite similar and consistent across cultures.

Physical attractiveness is a factor in interpersonal attraction and affiliation. However, one must be careful not to be guilty of “cognitive disregard” (Rodin,

1987), which is the judgement, assessment and exclusion of people on an irrelevant feature of their visible appearance. Other aspects must be considered.

#### 10.4.2 Needs: Biological and psychosocial dependency

A classical explanation for social affiliation and attraction is that people have an *innate or instinctive need for social interaction*. The biological emphasis on human behaviour is also emphasised by the theories of “evolutionary psychology” (see [Chapter 13](#)). In general evolutionary perspectives explain social behaviours as biological in nature and changed across time to adapt to changing environments (Wade and Travis, 2009).

Baumeister and Leary (1995) asserted that research thus far clearly indicated that the “instinctive” need to belong is a powerful fundamental human motive. This is especially true in babies when they arguably react instinctively, and in early childhood, when children are dependent on their parents and other caregivers for basic needs such as food, safety and love. In this regard some of the authoritative research on the building blocks of interpersonal and social relationships is the work on human bonding and attachment behaviours by Ainsworth and Bowlby (1991). In this research, need satisfaction is coupled to babies being dependent on the mother, who “must” provide the necessary physical needs (such as food and security) and psychological care and stimulation. This instinctive social dependency can also be illustrated by the crying of children, which automatically elicits a response from parents, and the fact that children are afraid of being far from parents, or away from them for a long time. The term “*separation anxiety*” is used to explain a child or adult’s fear of the breaking of a close relationship, especially if there have been previous forced separations from loved ones.

One might ask whether adults show similar behaviour in other situations. Why do people tend to be sorry for someone crying and hate to be away from loved ones? Why do parents still worry about their adult children in adverse circumstances? Anxiety studies in the late 1950s by Schachter showed that when people are fearful or anxious, or uncertain in situations, they want to affiliate with others, especially with those whom they assess to be experiencing similar feelings (Schachter, 1959; Buunk, 2001).

Affiliation might also happen for its *instrumental value* or benefits, and to fulfil particular needs. This is related to the concepts of social exchange and social comparison; people might associate with others and in situations as a means to an end. In general people will seek affiliation in order to enjoy

friendship, empathy and affection, to belong somewhere, and to avoid feelings of isolation, loneliness, fear and anxiety, and to be informed and assisted in achieving goals (Buunk, 2001; Coon, 2002; Gardner, 2002). Affiliation and attraction (either friendliness or hostility) are basic ingredients of interpersonal behaviour, the other being control (either dominance or submission). According to Hill (1987) people's affiliation behaviours will be characterised by the needs for attention, emotional support, social comparison and positive stimulation. A person might join a club for the status it will confer, befriend someone to obtain commercial privileges or information, or take a highly paid job just for the financial status and benefits.

It seems that needs dependency often extends across the life span. For example, young adults nowadays are often forced to be dependent on parents for far longer than in the past, or act as caregivers owing to economic circumstances and consequences of HIV/Aids.

### **10.4.3 Social learning and stimulation**

Through various means of learning, people associate their behaviours with the physical and social rewards (stimuli) they receive when involved in social interactions. The process of learning may include social exchange and comparison in the forming and maintaining of relationships. At work employees are often rated during performance appraisals on their social skills and whether they keep good relations with other employees and customers. Reward systems, as in the acquiring of bonding and attachment behaviour in early life, condition people in one way or another to exchange acceptable social behaviours and work performance for similar treatment, which in turn will evoke either positive or negative feelings.

It is generally accepted that human beings continuously need a particular level of stimulation, often complex and novel, or particular stress levels, to function optimally. Social interaction can function as a stimulus for improved performance or other forms of behaviour. Studies indicate that reduced intellectual and work performance can be increased with improved social circumstances and improved social skills (Argyle, 1992; Buss, 1995a). Calvin (in Lindgren, 1973) found females most frequently wore the colours on which they were complimented, while Grusec and Mischel (in Lindgren, 1973) reported children to prefer those teachers who gave them personal attention. In therapy and counselling, healing is primarily attributed to the social or interpersonal conditions of the therapeutic relationship, such as acceptance,

empathy and warmth (Truax and Carkhuff, 1967). However, social stimulation may also contain or create tension, anxiety and other ill – effects when one or both parties cannot cope with the conditions of a relationship, such as no longer finding positive rewards, not fitting into a situation, or not being accepted because of different social or other standards.

Cultural influences are a strong determinant of social behaviour, and often the reason for similarities and differences between individuals and groups. It is possible that cultural norms restrict and even prohibit contact, especially intimate associations between persons of different cultures (for example, with regard to religious or other beliefs that place a taboo on marriage with certain other groups). Different cultures form associations differently. Industrialised societies, such as the USA and other Western countries are often viewed as individualistic, in the sense that people form many relationships easily, but because many relationships are not intimate, people are prepared to leave them just as easily (Franzoi, 1996). In contrast, in so-called “collectivist” societies, such as Russian, Japanese and most Black African communities, people tend to, or are expected to, have more intimate and long-lasting relationships with friends and family (Triandis, Bontempo, Villareal, Asai and Lucca, 1988).

An issue related to social learning is the transference of cognitive and emotional beliefs or representations with regard to social-relationship issues. Behaviours and beliefs on how to form and maintain relationships are often internalised by individuals from historical, cultural, ethnic and other social influences. Examples of these are behaviours related to respect for the elderly and relationships within cultural boundaries. This issue is asserted by social constructionism, narrative psychology, and cultural and cross-cultural psychology in their emphasis on and interpretation of the social and contextual meaning of social reality for individuals, groups and societies, especially when transferred by language (Foster, 2003). For social constructionists, knowledge about people is not to know their personality attributes or individual differences, or to look for causes of behaviour in either dominant genetics and environmental learning, but to understand the context of people’s behaviour in relationships.

### **The importance of verbal and non-verbal communication: impression management**

Consider how a person would feel if he/she entered an office to start a new job and encountered the manager who was meant to

welcome him/her, but who was not smiling, not looking up, and continuing to read the mail of the previous day.

People react to what they perceive and interpret, not what they hear. In many work applications, the importance of verbal and non-verbal communications is elaborated on, for example in customer-care training programmes, training for employees in reception and public-relations jobs, as well as in training programmes for therapists and counsellors.

In many jobs and situations, impression management (the efforts to make a favourable impression on others and in situations) is very important. People doing this effectively may relate well to others and enjoy an advantage in many social situations. Being able to convey the right messages correctly to particular people will enhance the right perceptions and interpretations, which in turn might evoke the appropriate emotions and favourable social responses.

#### **10.4.4 Situational factors**

So-called “situationists” believe that specific human behaviour will be better understood if the *influence of specific situations* can be identified, which will enable scientists to develop taxonomies of situation-specific behaviour patterns (Larsen and Buss, 2008).

##### **10.4.4.1 Proximity, exposure and familiarity**

Physical proximity may be one of the most powerful determinants of interpersonal attraction (Baron and Byrne, 1994; Myers, 1996; Kowalski and Westen, 2011). Proximity, or propinquity, refers to the *exposure and closeness of people to one another or interaction accessibility*, such as staying together or near to one another, working and studying together, or sharing facilities.

This is especially the case if such proximity is functional, that is people have regular interaction (Arkin and Burger, 1980; Moreland and Beach, 1992), and not only accidental. Proximity mostly enforces exposure and familiarity. The interpersonal liking effects of proximity, such as becoming friends and getting married, have been proved by many studies of people living in the same neighbourhood, working or studying together, or using the same facilities (cited in Franzoi, 1996; Myers, 1996). Nearness or proximity creates familiarity and availability, so that in time people become at ease with one another, compare

one another to identify commonalities, and start to support one another in times of need and in daily hassles, and, in this way, exchange rewards.

Sometimes exposure may bring discord. After a time people can find that their differences are accentuated by being together. This may be the case when two people, groups with dissimilar attitudes, or parties with “unfinished business” from previous encounters are forced to stay or work together. Gaertner, Mann, Murrell and Dovidio (1990) found that proximity will increase ethnic prejudice if policies of segregation of opportunities and resources inhibit the development of positive relationships. However, in a study by Van Dyk (1990), it was found that the close proximity relationship between white housewives and their black workers facilitated more positive ethnic attitudes. Bradnum, Nieuwoudt and Tredoux (1993), in contrast, found that at the time of their research, contact between people of different races in integrated schools in South Africa and Zimbabwe did little to change ethnic attitudes, although they did assert that racial dislike in general was changing in parts, at least, of South Africa. This, however, is not verified if the many instances of aggression at schools and in society in South Africa are considered.

Dislike as a result of exposure may also occur, such as when people feel that their privacy is threatened or that people are exploiting them by “overstaying their welcome”.

However, exposure is often used in advertisements. If a person does not know enough or is uncertain, he /she will probably choose the most seen, best known or most heard-of commodity. Some research found that after particular music had been played in advertisements, people selected that music from amongst similar tunes, because they had heard it previously, even though they were doing something else at the time (Bornstein and D’Agostina, 1992).

The effect of political-candidate exposure on voting behaviours is also widely recognised. In an incident in the USA, an unknown attorney named Johnson was elected unexpectedly as a judge, defeating a respected Supreme Court judge named Callow, merely because voters had more associated knowledge of the name Johnson, also from a previous president. The surname Johnson is more frequently encountered and more Johnsons in various positions were known to voters (Myers, 1996).

Bornstein (1989) explained affiliation resulting from proximity as an evolutionary or biological adaptive response. If confronted with unfamiliar stimuli that threaten our survival, people will, through exposure, change the unknown to a situation that is familiar to them.

The influence of proximity and exposure, especially on long-lasting affiliations, can obviously be affected by factors such as attitudes, values, education levels, socioeconomic status, and historical and cultural issues.

#### 10.4.4.2 External events

Similarity in some instances may facilitate affiliation. A bonding factor in such affiliations and attraction may be feelings of being “in the same boat” and being thankful for empathy and support. This may happen when people experience fear, feelings of loss and bereavement, isolation, trauma or threat. For example, married couples or close friends might have met as fellow prisoners, or during an aeroplane hijack or a natural disaster. Chance meetings at social events often also lead to friendships and intimate associations.

External events can be associated with the individual’s macro-influencing systems, such as historical heritage, ethnic and race group, and economic, moral, religious and political policies. These often create a legacy of social stratification, which will influence some types of relationship and inhibit, or even prohibit, others.

### 10.5 AGGRESSION

One of the major roles of an I-O psychologist, and often of managers and supervisors as well, is to deal with aggression, anger, violence and conflict in relationships at work: one might think of management processes as the handling of conflict. I-O psychologists are often also involved in employment relations and organisational development, which might involve frustration, conflict, and even aggressive acts. The serious influence that aggression, violence and conflict can have in life and the workplace is sufficient to require a good knowledge and understanding of the phenomena that characterise human interactions. In addition, aspects of conflict, such as differences in opinion about work processes, if managed well, might energise creativity and innovation.

Optimal functioning in personal and work life also necessitates assertiveness, which is not aggression, but rather *anger management* and a firm and constructive way of expressing feelings, and of acting and achieving goals.

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**ETHICAL READER: A completely egalitarian society – only a dream?**

Racist attitudes will change only in a completely egalitarian society, both in South Africa and in the wider world. Yet it seems as if a completely egalitarian society might be nothing but a dream. Franzoi (1996) and Myers (1996) cited research on racism, which indicated some positive changes, but also indicated that equality might only be partially achieved and that racism in changing times may have new names or different role players.

Forms of racism and prejudice still occur in the midst of, and between, similar individuals and groups. Baron and Byrne (1994), for instance, cited research indicating that American employees in general do not mind associating with other employees of similar status, whereas the Japanese tend to prefer to associate with people of higher status. A possible explanation for this is that of “group” and “individual” inclusiveness, which may be recognised by aspects such as specific conditions for membership, and other psychological and physical boundaries. Groups often see themselves as superior to others in many respects and therefore find it difficult to associate with a dissimilar group on many issues or to share certain traditional values. For every collection of groups there is often one that tries to be dominant, resulting in possible mutual negative attitudes.

Affiliation problems (such as apathy, repulsion, dislike and other negative emotions that characterise relationship difficulties) may also feature in ethnic, race and religious conflicts. Often such problems, notwithstanding continuous negotiation and counselling efforts, seem to be unsolvable. In this regard, Rosenbaum’s repulsion hypothesis (Rosenbaum, 1986), which asserts that in social attraction dissimilar attitudes have a stronger influence than similar ones, is noteworthy. It is possible that in these times of humanitarianism, where there is an emphasis on “oneness” and “sameness”, especially in culturally diverse societies, people tend to ignore or minimise the facts of similarity, and therefore efforts to force associations between particular individuals and groups may facilitate repulsion rather than reconciliation.

### **10.5.1 What is aggression?**

Aggression is any behaviour that is likely, or has the intention, to hurt someone

physically or verbally, or cause damage to something (Papalia and Wendkos Olds, 1985; Felson, 2000; Weiten and Lloyd, 2003; Frieze and Yu Li, 2010). Eron (cited in Flett, 2007) defined aggression as acts that injured or irritated other people regardless of the intention. Often, acts of aggression explode into violence and destructive action in organisations, against people or their property. At other times, aggressive impulses are restricted to competition, verbal attack, or some other expression of anger and hostility short of physical injury. Literature suggests that important criteria for aggression are:

- actual and/or intended physical and/or verbal acts of hurt to people who have tried to avoid or want to avoid being hurt
- actual and/or intended harm or destruction to property and belongings of other people who have tried to avoid or want to avoid harm to their possessions.

In as much as violent behavior is likened to aggression, this may not always be the case. Accidental violence would not be aggressive if there is no intent to harm the other and aggression does not have to be violent. Frieze and Yu Li (2010) argue that most of the research on aggression in everyday life concerns physical violence, as this is the most obvious, the most easily measured, and has the greatest consequences for the targets of aggression. However, it must be noted that violent and nonviolent aggressions often occur together. Those who are physically violent are usually aggressive in nonviolent ways as well (Marshall, 1994).

### **10.5.2 Types of aggression**

There are various forms of aggression, based on the motive, intent and legacy of behaviour. These include:

- Hostile aggression occurs when the only intent of the aggression is to harm someone. It can therefore be ascribed to a motive of rage, such as an impulsive emotional reaction.
- Instrumental aggression, in contrast, occurs when harming another person is only a secondary objective or intent, carried out to gain another primary objective, such as “cold-blooded” murder, injury or fraudulent actions motivated only by financial remuneration, or the damaging of employers’ property in order to force them into negotiations.
- Antisocial aggression manifests when the objective of aggressive behaviour is to harm other people or their property with malicious intent.
- In contrast, prosocial aggressive behaviour is a reaction to antisocial

aggression, as in the case of a person who tries to apprehend a burglar.

- Sanctioned aggression involves acceptable behaviour, for example punishment or an act against another in self-defence. It is aggression allowed for a good reason. This can be illustrated by an example from the animal kingdom: to some people, a lion catching and eating prey seems cruel, but because the “aggressive” act occurs in nature as an act of survival, people find it acceptable.



**Figure 10.6** Like in nature, some human aggression may be sanctioned.

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Frieze and Yu Li (2010) propose other forms of aggression. They present the following forms of nonviolent (indirect) aggression:

- Verbal hostility – where one may say negative things about someone to someone else
- Nonverbal hostility – having feelings of resentment, suspicion towards someone but not acting on these feelings
- Harming or taking another’s property – breaking something that belongs to someone in a state of anger.

- Withdrawal – where one withdraws during a conversation or other form of interaction and has a hostile intent.

Another form of aggression to be considered is “relational aggression”. This behavior harms others by damaging interpersonal relationships. In children, relational aggression appears to be more commonly done by girls than by boys. In adults this may include actively spreading rumors about someone that may lead to others disliking them, or even excluding others from a group or withdrawing one’s friendship.

Other specific manifestations of aggression are workplace aggression, violence, bullying and harassment (Neumann and Baron, 1998).

#### **10.5.2.1 Workplace aggression**

Workplace aggression can be defined as efforts by individuals to harm other people with whom they work, or have worked, as well as efforts by individuals to harm or sabotage organisations or workplaces in which they are currently working or have previously been employed (Neumann and Baron, 1998).

According to Neumann and Baron (1998), workplace aggression consists of expressions of hostility, obstructionism and overt aggression:

- *Expressions of hostility* include behaviours that are primarily verbal or symbolic in nature, such as talking behind the target’s back, not denying false rumours, using negative or obscene gestures (harassment), and speaking negatively of the organisation.
- *Obstructionism* includes actions that are designed to impede an individual’s ability to perform his /her job or interfere with an organisation’s ability to meet its objectives, such as refusing to provide resources needed by the employees, using resources irresponsibly, and intentionally slowing down work.
- *Overt aggression* includes behaviours typically associated with workplace violence, such as physical or sexual assaults, and harassment, stealing and the damaging of property.

These three forms of workplace aggression include behaviours that vary in terms of destructiveness (or intensity). Some behaviours are more destructive than others (Neumann and Baron, 1998; Tobin, 2001). These types of workplace aggression can be directed towards individuals, groups or the organisation.

Jahawar (2002) suggests that workplace aggression, and the frustration and resentment employees feel towards colleagues, the organisation and

management could affect the customers of the organisation. Poor customer service might be due partly to employees' feelings of frustration and conflict, and aggressive feelings experienced in and towards the organisation.

#### **10.5.2.2 Workplace violence**

*Violence* is an extreme form of aggression and mostly involves direct physical and verbal attacks. *Workplace violence* is any unnecessary violent act, whether physical or psychological, occurring in the workplace, leading to the physical or psychological trauma of an employee whilst performing his/her duties. The psychological trauma that results from the violent act perpetrated against the employee can lead to work performance problems in victims. According to Tobin (2001), workplace violence consists of behaviours that are covert (such as vandalism), overt (such as intimidation), and dangerous (such as assault). Workplace violence can also range from least harmful behaviours, such as gossiping and shouting, to extreme and injurious behaviour, such as severe bodily injury and murder (Greenberg and Barling, 1999). It is important to distinguish between violent acts that are "organisationally motivated" and those that arise from factors outside the control of the organisation (Neumann and Baron, 1998; Spector, 2011).

#### **10.5.2.3 Workplace bullying**

Cowie, Naylor, Rivers, Smith and Pereirad (2002), Cusack (2003), and Landy and Conte (2003) assert that workplace bullying is increasing and has developed into a serious problem. However, it is also difficult to define and evaluate accurately. Workplace bullying is repeated negative actions and practices that are directed at one or more workers over long periods of time. These negative actions and practices, which may be intentional or unconscious, are unwanted by the victim, cause humiliation and distress, are offensive, interfere with work performance and/or might cause an unpleasant working environment (Hadjifotiou, 1983, cited in Einarsen, 1999; Zapf and Gross, 2001; Cusack, 2003; Ramsay, Troth and Branch, 2011). For a behaviour to be labelled as bullying, it must occur repeatedly (for example, at least one event a week), and over a long time (for example, at least six months). If bullying occurs only once, or if two equally strong parties are in conflict, it is not bullying. In the context of the strong emphasis on human rights, appropriate action to ensure that employees fulfil their work contract can also not be defined as bullying.

In the identification and assessment of complaints of bullying, the victim's

stories, feelings and perceptions should be considered. However, victims might not be the best source of an accurate assessment of behaviours and characteristics of the offenders (Einarsen, 1999). Keashly (1998) identified seven dimensions or qualities that may influence how an employee perceives bullying:

- verbal versus physical conduct
- repeated versus single acts
- degree of unwanted or unsolicited behaviour
- the perception of violation of a person's rights
- the degree of harm to the victim
- the intent or controllability of the actions
- power differences between the offender and victim.

According to Einarsen (1999) bullying seems to contain at least four phases of *escalating conflict*:

- In the first phase, bullying might start with rather subtle aggressive outlets or incidents directed against one or more people in the work group.
- In the second phase, victims might be publicly humiliated and have problems in defending themselves, either because of already existing psychological or social factors, or as a consequence of the bullying itself, which after a while might place a social stigma on the victim.
- In the third phase, the bully often preys directly on the inadequacies of the victim's personality, such as labelling a person as emotionally unstable, causing stigmatisation.
- In the fourth phase, the situation seems to affect the psychological and physical health of the victim quite dramatically, causing severe trauma to the victim.

### **Types of workplace bullying behaviour**

According to Rayner and Höel (1997), workplace bullying behaviours can be grouped into various types:

- threats to professional status (for example, belittling someone's opinion, public professional humiliation, and an accusation regarding lack of effort)
- threats to personal standing (for example, name-calling, insults, intimidation and devaluing with reference to age)

- threats to social relationships (for example, damaging the friendship networks, thus causing social manipulation to occur, making it very difficult for victims to report on their experiences or to be believed if they do)
- isolation (for example, preventing access to opportunities, physical or social isolation, and the withholding of information)
- overwork (for example, undue pressure, impossible deadlines and unnecessary disruptions)
- destabilisation (for example, failure to give credit when due, meaningless tasks, removal of responsibility, repeated reminders of blunders, and setting up someone to fail).

Workplace bullying has serious, negative implications for individual, group, and organisational functioning. Results of workplace bullying include higher levels of absenteeism and illness, as well as decreased commitment, satisfaction, and productivity (Ramsay, Troth and Branch, 2011).

Notably definitions of bullying, especially in the workplace, focus solely on individuals. However, there is a general acceptance that more than one person can be involved in target and perpetrator roles. The group context is often overlooked despite the fact that organisations consist of formally created groups with assigned tasks and specific responsibilities (e.g., functional or project teams) and informal groups based on group similarities and social needs (e.g., gender, religion, ethnic background) (Napier and Gershenfeld, 2004 in Ramsay, et.al., 2011). Findings by Ramsay, Troth and Branch (2011) indicate that, whilst 31% of targets reported being bullied individually, 54% of targets indicated that the bullying experience was shared with other work colleagues, and 14.9% reported it was experienced by the entire work group. Researchers have identified several strategies that link subcultures and bullying, including recruitment of perpetrators into certain groups. With their “centrality to the individual-organisation interface” group contexts are clearly important in fully understanding the workplace bullying phenomenon (Robinson and O’Leary-Kelly, 1998, p. 669, cited in Ramsay, et. al. 2011). Evidently, bullying is relevant to groups and is likely to be aggravated by group processes.

According to Cusack (2003) and Landy and Conte (2005) organisations should deal effectively with bullying. Sometimes, prejudices against the victim produced by the bullying seem to cause organisations to treat the victim as the

problem, which is similar to identifying as a patient someone who is not really ill. In their reactions, management, union representatives or personnel administration might accept the prejudices produced by the offenders, thus blaming the victim and considering the bullying as fair treatment of a difficult person (Leymann, 1990; Einarsen, Raknes and Matthiesen, 1994). Furthermore, Ramsay, et.al. (2011) argue that it is of central importance that organisations improve negative and stressful work group environments, where incidents of bullying have been reported, so as to prevent workplace bullying.

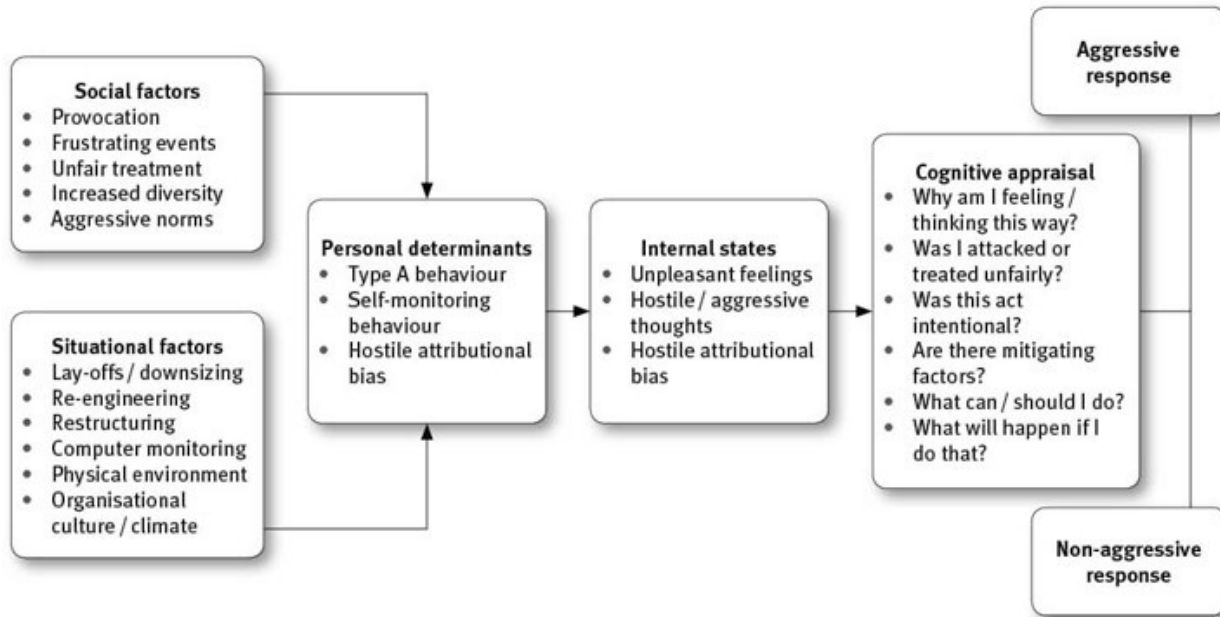
#### **10.5.2.4 Harassment**

Terms such as “sexual harassment” or “racial harassment” may be used if aggressive acts and unwanted behaviours are linked to diversity characteristics such as gender, ethnicity or race. The distinction between bullying and harassment is not easy to draw, and many researchers in this field argue that bullying and other forms of harassment, such as sexual and racial harassment, are related.

### **10.6 CAUSES OF WORKPLACE AGGRESSION**

Though the causes or determinants of aggression may be slightly different for various types and manifestations of aggression, generally the causes can be classified as personal or psychological determinants, social determinants, and situational or environmental determinants (Banyard and Hays, 1994; Neumann and Baron, 1998; Jawahar, 2002).

Figure 10.7 illustrates various aspects of workplace aggression (possible internal and external causal factors and their interactions, as well as a person’s cognitive appraisal before responding). Aggression cannot be explained by any single factor, rather, it is likely that all of these factors contribute to a specific instance of aggression or, even, that they have a cumulative effect. If, for instance, one assumes that aggression comes naturally to humans, their level of aggression can still be meaningfully affected by learning, by the relative frustration in the work environment, and by the pressures towards or against aggression exerted in the contexts in which people function.



**Figure 10.7** Theoretical model of workplace aggression.  
Source: Adapted from Neumann and Baron (1998:461)

### 10.6.1 Personal determinants of workplace aggression

Personal determinants of workplace aggression include all personal and other psychological factors that are unique to a person and which may explain his/her personal dispositions with regard to aggression and related emotional expressions.



**Figure 10.8** Instinctive aggression in people?

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### 10.6.1.1 Aggression as an inherent part of human nature

Aggression can result from intrapsychic and interpersonal factors. Psychologists such as Freud, and ethologists such as Lorenz (Coon 2002; Gardner 2002), have explained aggression as the result of inherent and biological drives or instincts. Freud believed that aggression is based on one of the two basic instincts in people, namely Thanatos (the death or aggressive drive), which forms the basis of destructive and aggressive human behaviour. Aggressive behaviour based on the death drive can be directed from the unconscious towards the self (masochism) or towards the external environment, in which case aggressive behaviour will be manifested in appropriate or inappropriate ways.

Related to innate tendencies is the *biological basis of aggression*. Particular areas of the brain can trigger aggressive acts – a function which could also be induced by nutrition, hormones, illnesses, injuries and substances such as drugs and alcohol. High levels of testosterone and alcohol, for example, will induce higher levels of aggression in both males and females. All these influences may

not be the causes of aggressive behaviour, but lead to aggressiveness and hostility because they lower the thresholds and inhibition levels to cope with aggression. They are arousal stimuli. In 1977 the sociologist David P. Barash (cited in Larsen and Buss, 2002) suggested that over the course of evolution aggressive expressions are shaped as people's actions adapt through competition for resources in changing environments.

In this regard the concept of a hostile attributional bias can also be used to explain aggression as a function of innate tendencies in aggressiveness. A recent study has shown that aggressive people constantly interpret vague behaviour from others, such as being bumped into, as intentionally hostile. This tendency to infer hostile intent on the part of others in the face of uncertain or unclear behaviour from them is called a *hostile attributional bias*. Since aggressive people expect others to be hostile, they tend to treat others in an aggressive manner, an assumption very similar to the so-called "self-fulfilling prophecy" (Larsen and Buss, 2002).

#### **10.6.1.2 Aggression as learned behaviour**

As in the case of prosocial attachment behaviour, aggression behaviour can also be learned through conditioning, imitation and reinforcement (for example, learning when aggressive acts are appropriate and when aggression will be punished). In an authoritative longitudinal study of 22 years on aggression, Eron (cited in Flett, 2007) associates aggression with many learning and socialisation influences, including identification with parents and their examples with regard to caring and punishment. Eron also found that aggression during childhood had long-term stability and manifested in adulthood in the form of aggression, criminality, traffic offences, driving whilst intoxicated and severe punishment of children. Transfer of aggression, termed contagious violence, can also occur when people interpret new situations as requiring aggressive acts based on previous situations with other people (Hogg, 2000; Baldwin, 2005).

In the process of learning aggressive behaviour and learning to deal with it, people observe and imitate the behaviour of others in many ways:

- Firstly, through observational learning and vicarious reinforcement, people observe and imitate people around them, especially if unacceptable behaviours are not punished or censured.
- Secondly, people observe and imitate societal attitudes and values, such as those about gender behaviour or racial relationships, which may energise aggressive behaviours.

- Thirdly, people observe and imitate aggressive behaviour from the media, such as aggressive acts in films and aggressive pornographic magazines. This might render people insensitive to aggression and violence (creating disinhibition), which some people may express in their personal and work lives. This might be even further reinforced if aggression and hostility is not punished. When aggressive responses are rewarded, aggressive responses tend to occur more frequently, which may explain the many instances of violent crime that occur in business and which private individuals encounter daily. In a work situation, managers and supervisors with aggressive tendencies and acts serve as models for their subordinates and may encourage similar aggressive behaviour.

In the last few decades in South Africa there have been many examples of one-on-one aggression, family violence and crowd violence, the latter during labour strikes, other strikes, political rallies and at mass sports events.

Mass violence illustrates the factor of deindividuation, which makes individuals susceptible to aggressive behaviour in crowd settings. *Deindividuation* is a psychological state of diminished self-awareness. A crowd is anonymous and in a crowd the sense of personal responsibility is lessened, thus making aggression more likely (Wiggins, Wiggins and Van der Zanden, 1994). The following conditions may lead to diminished self-awareness and sensitivity, disinhibition, and shifts in perception, causing a sense of deindividuation (Banyard and Hays, 1994):

- a sense of personal anonymity
- a high level of arousal, possibly induced by being in a crowd
- an increased focus on external events rather than personal feelings or interpersonal events
- the group forming a close unit.



**Figure 10.9** Learning aggression?

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### 10.6.1.3 Personality and personal factors

Aggression can be associated with *personality traits* (trait aggression), as illustrated by measures on personality questionnaires. In research on adult personality structures, the traits of hostility and low emotional stability (neuroticism) have been related to aggressive behaviours (Pulkkinen, 2000). Research has indicated that people with Type-A behaviour patterns experience

higher levels of frustration, lose their tempers more frequently, and are more aggressive in competitive situations than people with Type-B behaviour patterns (Hogg, 2000; Jahawar, 2002). According to Neumann and Baron (1998) there is a significant relationship between Type-A behaviour patterns and the three forms of workplace aggression (expressions of hostility, obstructionism and overt aggression).

On the other hand, certain personality characteristics may also increase a person's susceptibility to aggressive behaviour. In the latter instance, for example, traits such as humility, learned helplessness and low self-esteem might make some people targets for aggressiveness by others, but might also cause people to be less aggressive and more submissive in their own behaviour (Snyder and Lopez, 2002; Harvey and Keashly, 2003).

Certain personality disorders, such as an antisocial personality, have as characteristics aggressiveness and difficulty controlling temper, which often lead to hostile and aggressive acts and crimes (Gardner, 2002; Shields and Kiser, 2003). Mathew Naidoo, who was convicted and handed two life sentences for the murder of the Lotter couple, along with Nicolette and Hardus Lotter who were handed down a 10-year and a 12-year jail sentence respectively, is a typical example.

*Demographic and personal factors* that can cause or moderate aggressive and hostile behaviours are gender, age and lifestyle differences. Across cultures, research findings indicate males to be responsible for the most (80–90%) direct or public, physical, violent and aggressive acts and crimes (cited in Weiten and Lloyd, 2004). Whilst men and boys might also use verbal aggression, women and girls are more likely to use indirect or relational aggression, such as giving people the “silent treatment”, and to use physical aggression the least. Gender differences are mainly attributed to social expectations and sex-role socialisation. Increased maturity, wisdom and self-control assist adults and older people to be less aggressive (Neumann and Baron, 1998). Lifestyles that include aggressive acts and deindividuation in groups (for example, at sports meetings) and drug consumption (alcohol and other substances) also increase some people's vulnerability to aggression. In the latter instance, intoxicated people are provoked more easily because of lower inhibition levels (Hogg, 2000; Shields and Kiser, 2003).

### **10.6.2 Social, environmental and situational determinants of workplace aggression**

Many social events, physical influences and specific situations can cause or moderate frustration and anger, which might result in aggressive and hostile reactions, especially if these factors frustrate or hinder goal achievement. Often, aggression follows when people compete for the same resources (such as jobs, land, water or food) or are dissimilar in situations (such as regarding ethnic and religious issues, political ideology, values, attitudes and interests).

#### **10.6.2.1 Perceptions of unfair treatment: Procedural and distributive injustice**

In diverse societies subgroups can be more easily polarised if some groups, such as minorities, have the perception that they are, or in fact are, treated unfairly and unjustly. According to Jahawar (2002) workplace violence, physical attack and homicide often follow on from unfair treatment, be it experienced or perceived.

#### **10.6.2.2 Poor management of diversity**

Increased diversity in the workforce can cause management to handle issues of diversity in organisations inadequately, which could lead to heightened tension and interpersonal conflict amongst employees. A diverse workforce implies many different types of employee working together, and the differences can be amplified during conflict situations, leading to a negative emotion, which might result in a decreased level of interpersonal attraction, affiliation and cooperation, as well as to increased potential for aggression (Neumann and Baron, 1998).

#### **10.6.2.3 Norms and norm violations**

Normative behaviour and norm violations may play an important role in increasing aggression in organisations, especially if clashes between cultural values and work ethics occur. For certain employees, aggressive actions might be seen as an employee's right to be in conflict with management or the employer, whilst others, pestered by bullying, harassment, poor and unreasonable working conditions, might get used to being treated aggressively at work, and become too afraid to protest. Organisational cultures may encourage particular competitive and aggressive organisational climates (such as a "dog-eat-dog" environment) or the appearance of toughness and a lack of care for subordinates by rewarding them through increases in salary and promotion (Neumann and Baron, 1998; Tobin, 2001). In contrast, cultural norms in society and in organisations can be very successful in curbing hostile and aggressive

behaviours because of rules, legislation and policies that regulate such behaviours.

#### **10.6.2.4 Workplace changes and discontinuity**

Research indicates that cost-cutting and job insecurity and losses (through retrenchments, downsizing and budget cuts) and organisational change (through changes in management, restructuring and re-engineering) are significantly related to the expression of hostility and obstructive aggressive behaviours (Neumann and Baron, 1998; Greenberg and Barling, 1999). Consequently, increased aggression and intimidation can occur amongst employees. After retrenchments the employees in the organisation could experience a decline in morale, increasing mistrust of management, and the need to cope with an increased workload – resulting in a cycle of increasing frustration and stress.

#### **10.6.2.5 Physical working conditions**

Many poor and unsatisfactory working conditions can cause anger and frustration. Environmental factors that have been linked with aggressive behaviour are noise, heat, offensive odours, cigarette smoke and air pollution. It is important that people who design workplaces take cognisance of these factors (Neumann and Baron, 1998), as this might help to prevent or reduce workplace aggression, anger and hostility.

#### **10.6.3 Aggression as a response to frustration**

Many of the above-mentioned causal factors result in frustration, which may lead to aggression and violence. The *frustration-aggression hypothesis* states that aggression is an automatic or direct response to frustration (Fox and Spector, 1999; Hogg, 2000). Frustration is interference with goal attainment or goal-oriented activity, as well as interference with goal maintenance (Fox and Spector, 1999; Tobin, 2001). In organisational settings, frustration is a cause of workplace aggression, especially when individuals perceive others' interference with the attainment of their work goal or effective performance as intentional and unfair (Neumann and Baron, 1998; Fox and Spector, 1999; Jahawar, 2002). The higher a person's experienced frustration, the more likely or the more extreme the aggressive response, and the greater the possibility of aggression becoming workplace violence, resulting in physical attack on service providers by clients, subordinates, co-workers or management (Greenberg and Barling, 1999; Tobin, 2001; Raver, 2004). Fortunately also, through self-control, people

often demonstrate more positive coping behaviours for frustration and can be motivated to identify and implement alternative ways of attaining goals (Tobin, 2001).



**Figure 10.10** Frustration and aggression.

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## 10.7 CONFLICT

Conflict is closely associated with, and can be an important determinant of frustration, anger, hostility, aggression and violence. Martinez and Guerra (2005) assert that conflict is potentially present in interpersonal relations, in intra-group and intergroup relations, in strategic decision-making, and in other organisational processes. In this regard, though conflict mostly generates considerable stress in people, it must not necessarily be considered to be always negative and destructive, but may have very positive outcomes if managed well. For example, through resolution of conflict people may understand and solve problems better, and strengthen relationships (Tjosvold, 2006). Like stress, a certain level of conflict is believed to be necessary for groups to stimulate

activity, to function effectively and to avoid stagnation.

### 10.7.1 What is conflict?

According to Weiten (2008) *personal or internal conflict* occurs when two or more incompatible motivations or behaviours compete for expression. For example, a person may want to use money for studying and to buy a new car. Between two persons, or in and between groups, conflict will exist when the parties perceive resistance, opposition or incompatibility with regard to goals, values, opinions or activities that are important for one or both of the parties to achieve (see box below). When the conflicting parties start to act on the conflict, the conflict becomes a dynamic, and often an unpleasant process, of conflict-handling characterised by action and reaction (De Reuver, 2006). If conflict resolution happens in a climate that rather offers cooperation, a positive climate for interaction and negotiating can be created, and solutions can be attained that satisfy all parties' interests.

According to Nel, Kirsten, Swanepoel, Erasmus and Poisat (2008), there are many universal factors that may be considered as features of conflict.

- Conflict is considered to be a part of the interaction between individuals or groups.
- The conflict process is dynamic as it has to continuously evolve to accommodate events and changes in the conflict environment.
- Conflict is competitive or incompatible by nature and can therefore divide resources and actions unequally.
- The negative emotional qualities of conflict can be related to anger, aggression, threats, hostility and lack of cooperation.
- Interaction during conflict can be either verbal or non-verbal.

#### **Various types of approach and avoidance conflict**

Perhaps the best-known classification of conflict refers to the various types of approach and avoidance conflict (Coon, 2002):

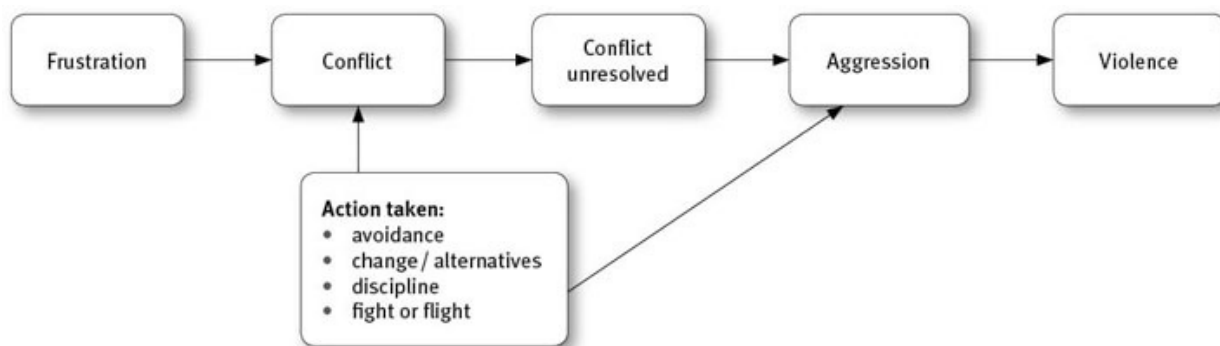
- Approach-approach conflict exists when a person has to choose between equally attractive or positive alternatives, such as which of two good jobs to accept.
- Avoidance-avoidance conflict happens when a person is divided between equally unattractive alternatives, such as being forced to do a boring job or not have an income. A person in this position is

“between the devil and the deep blue sea”.

- Approach-avoidance conflict occurs when a person is attracted and repelled at the same time or has to decide either to achieve a very positive outcome or to avoid a negative outcome of the same issue. For example, a person may really want to go for a job interview, but experience conflict because he/she is afraid of not getting the job.
- Multiple types of conflict can also occur, for example in double approach-avoidance conflicts. This may happen, for example, when a person has to choose between two job offers or two cars, of which both have very positive and very negative aspects.

It may sound easy to make the avoidance type of decision. However, often, avoiding an issue in the present, results in even more conflict and more serious consequences later (Coon, 2002).

As indicated in Figure 10.11, if conflict remains unresolved, it could lead to aggression and violence. These possible consequences of conflict warrant serious attention to conflict and sources of conflict in the workplace.



**Figure 10.11** The frustration-conflict-aggression-violence continuum.  
Source: Adapted from Tobin (2001)

### 10.7.2 Possible sources of conflict

In general, sources of conflict are attributed to communication between parties, personal attributes and structural issues in organisations.

*Personal attributes* refer to personality clashes and acquired interpersonal and attachment behaviours, which often dictate how conflict is perceived and resolved. Conflict is most often blamed on the characteristics of the individuals involved. People who are abrasive, uncertain, dependent, aggressive, domineering or manipulative might contribute to conflict more than other people because of these personality traits. For example, individuals who are highly authoritarian – a personality type Coon (2002) refers to as “prejudiced personalities” – have high potential for conflict. *Authoritarian personalities* are characterised by attributes such as being very dogmatic, rigid, inhibited, prejudiced and seeing things in a very simplistic manner. Group members with authoritarian personality characteristics often use *ethnocentrism* – viewing one group as superior to another – and place their own group and its interests above other groups and individuals, often without considering the realities of the situation.

The many personal differences between employees partially explain why diversity management in organisations has become very important.

*Structural factors* that must be considered when exploring conflict include: group size, positions, tasks and roles, policies, management and leadership, reward systems and the degree of dependence between work groups. The availability and utilisation of sources and resources in work and other environments may also cause conflict.

Nel *et al.* (2008) identify the following sources of conflict:

- *the lack of a common objective* (A common objective unifies the behaviour of individuals or groups towards the achievement of this shared goal.)
- *different methods of pursuing the objective* (Individuals or groups differ in the way in which they view their predetermined set of objectives owing to various divergent opinions amongst members. For example, should employees confront management and make concrete demands, or should they negotiate and, if the negotiations are not successful, then go on strike?)
- *information differences* (It is not so much the variety in available information that causes conflict, but rather the differences in interpretation.)
- *blocked communication channels* (These are the result of disruptions in the flow of communication, for example, too little or too much communication. For example, if the organisation withholds vital information from the trade union, such as its financial status, then addressing issues such as wages and benefits during the negotiation process can be distorted or biased.)
- *semantic (language) differences* (Semantic differences can cause the

- misinterpretation of information, which might not only occur in the translation but also in the cultural differences that bring about the semantics.)
- *divergent value structures* (Value-based conflict will involve differences in the moral and ethical values between individuals and groups within an organisation.)
  - *differences in attitude* (Attitudinal differences can be a fundamental cause of conflict. Value differences, for example, offer the best explanation for prejudice with regard to issues such as race, gender and religion, and other common disagreements that are based on value judgements. Many value orientations and other difference factors are firmly based on cultural and ethnic orientations. For example, having a more individualistic as opposed to a collectivistic orientation may lead to different styles of conflict management. Similarly, many conflicts may be the result of social stereotypes and group prejudices, which may be based on deep-seated cultural and ethnic values and attitudes. Conflict can usually only be resolved by creating common ground, and by instilling new, positive attitudes, and not by altering old, negative ones. The dissonance between old, negative attitudes and new, positive beliefs serves as the stimulus to develop new attitudes in a person or between parties.).

### 10.7.3 Types of conflict

Updated research conducted by Kim, Wang, Kondo and Kim (2007), Nel *et al.* (2008), and Green (2008) illustrates that although it is difficult to always identify specific types and styles of conflict precisely, it is necessary to contrast the types of conflict in order to highlight their specific characteristics. Various types and styles of conflict can be distinguished with regard to individuals, groups and organisations:

- *Real conflict (substantive conflict)* is a type of conflict that is manifested in abnormal, deviant or aggressive behaviour. This type of conflict manifests when one or both of the parties exceed the parameters or boundaries prescribed for cooperative interpersonal behaviour.
- *Felt conflict* refers to the potential for conflict that the observer “perceives” to exist but is not real (cannot be noticed). The longer the relationship causing this perceived conflict persists, or the more it deepens because of extraneous variables, the greater the chance of perceived conflict turning into real conflict.
- *Destructive conflict (dysfunctional conflict)* is the result of a win-lose

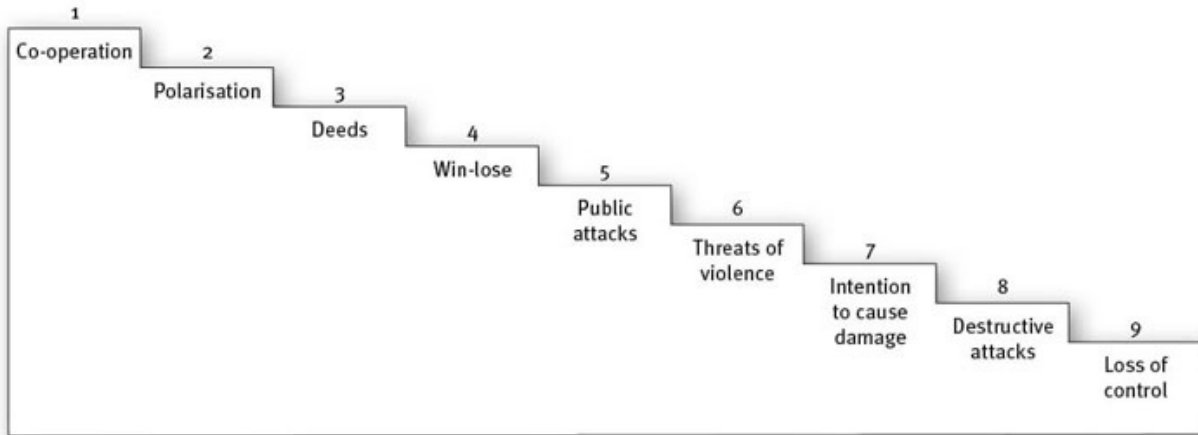
relationship where one or more party has lost (or thinks he/she has lost) in the competition of resources, status or recognition.

- *Constructive conflict (functional conflict)* is seen as a relatively satisfactory outcome in a competition relationship, based on compromise rather than on a win-lose relationship.
- *Strategic conflict (pseudo conflict or manipulated conflict)* is that which is consciously generated by individuals or groups in order to manipulate the allocation or reallocation of resources, status, authority and power. Strategic conflict is used to strengthen the individual's or group's position, for example to improve bargaining or coercive power.
- *Frictional conflict* is regarded as the impulsive or unexpected result of the interaction caused by the formal structure of an organisation. It is inherent in, and results from, the interaction between individuals or groups in specific positions in an organisation and is usually regarded as being dysfunctional to the organisation.

Other classifications of conflict refer to intrapersonal conflict, interpersonal conflict between individuals or groups, and organisational conflict that refers to conflict between employees and groups or between employees and employers in organisations, mostly about resources and other employee and organisational issues. Du Brin (2000) refers to cognitive or C-type conflict, which entails tangible or factual issues that can be dealt with more rationally, and which mostly can be functionally resolved. In contrast, A-type conflict involves personalised, emotional or ego-based issues, which are difficult to define and resolve, and is mostly dysfunctional because it can undermine group functioning. B-type conflict revolves around a more calm and tranquil orientation and way of dealing with conflict issues, which will decrease opposition and competition. The box above also shows the well-known classification of approach and avoidance conflict.

#### **10.7.4 Stages in conflict escalation**

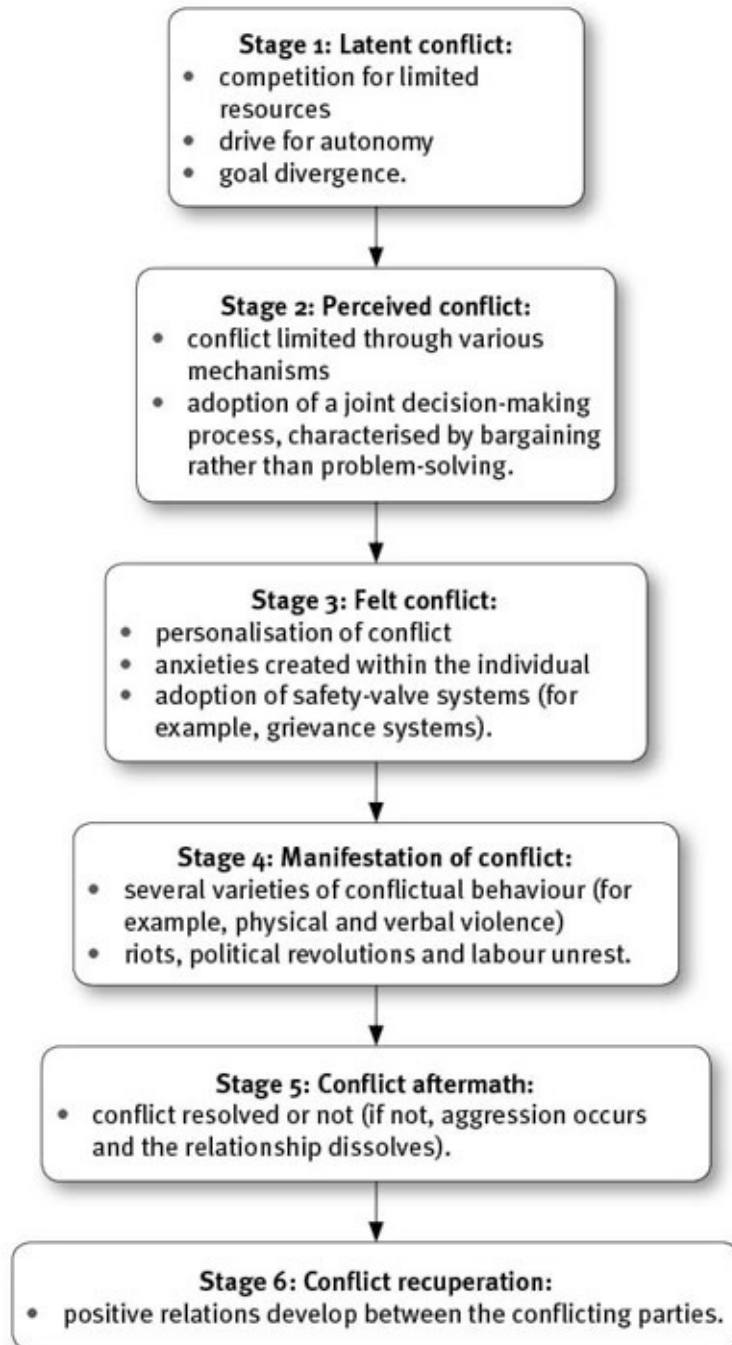
A number of stage models have been proposed to show how conflict escalates. For example, Glasl (cited in Jordan, 1999) suggested the model illustrated in Figure 10.12, where cooperation degenerates into polarisation, unhelpful deeds, a win-lose situation and public attacks, threats of violence, the intention to cause damage and destructive acts, and then culminates in a loss of control.



**Figure 10.12** The escalation of conflict. Source: Based on Glasl (1982), as translated and interpreted by Jordan (1999).  
Jordan, T. (1999). *Glasl's nine-stage model of conflict escalation: A summary*. Retrieved on 5 May 1999 from Glasl, F. (1982). "The process of conflict escalation and roles of third parties." In G. Bonners and R. Petersen (Eds), *Conflict management and industrial relations*. Boston: Kluwer. Reprinted with kind permission from Springer Science and Business Media B.V.

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In a similar model, Nel *et al.* (2008) (see Figure 10.13) propose that the escalation of conflict usually follows a pattern of six stages: latent conflict, perceived conflict, felt conflict, manifest conflict, conflict aftermath and conflict recuperation



**Figure 10.13** Stages of conflict escalation.  
Source: Nel, *et al.* (2008)

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#### 10.7.4.1 Latent conflict

At this stage, three types of conflict can be differentiated:

- competition for limited resources (which forms the basis for conflict when the accumulated demands of participants for resources exceed the resources available)
- drive for autonomy (which forms the basis of conflict when one party seeks either to exercise control over some activity that another party regards as its own province, or to protect itself from such control)
- goal divergence (which refers to the source of conflict when parties who must cooperate on some joint activity are unable to reach consensus on what action to take).

#### **10.7.4.2 Perceived conflict**

At this stage, conflict may sometimes be perceived when no conditions of latent conflict exist. The perception of conflict can be limited through various mechanisms. Individuals may, for example, tend to block the awareness of conflict that is only mildly threatening, but when it relates to values central to the individual's personality, a conflict becomes a threat and should be acknowledged. A common reaction to perceived conflict is to adopt a joint decision-making process characterised by bargaining rather than problem-solving.

#### **10.7.4.3 Felt conflict**

This stage manifests itself in different ways:

- Personalisation of conflict takes place.
- Anxieties are created within the individual.
- Transferring these anxieties to suitable targets leads to the adoption of safety-valve institutions (for example, grievance systems).
- Conflict becomes personalised when the personality of the individual is involved in the relationship.

#### **10.7.4.4 Manifest conflict**

This stage of conflict occurs in a number of ways:

- It includes any of several varieties of conflictive behaviour. The most obvious of these is open aggression, but such physical and verbal violence is usually strongly condemned by organisational norms.
- Riots, political revolutions and extreme labour unrest also occur.

#### **10.7.4.5 Conflict aftermath**

If the conflict at this stage is genuinely resolved to the satisfaction of all participants, the basis for a more cooperative relationship may be realised. However, if the conflict is merely suppressed but not resolved at this stage, the latent conditions of conflict may be aggravated and later explode into more serious forms until they are corrected or until the relationship dissolves.

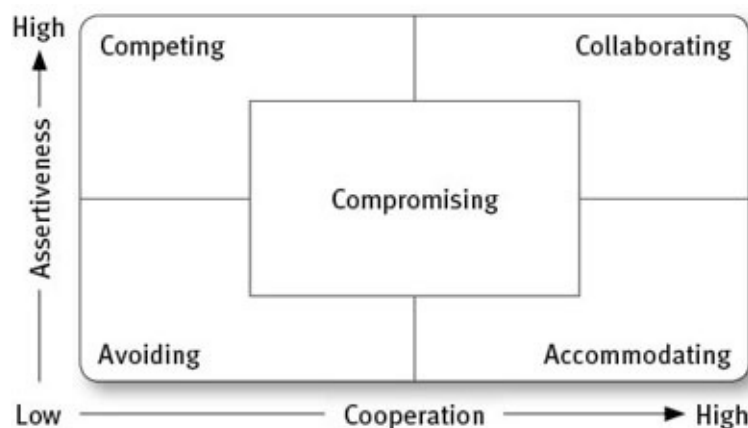
#### 10.7.4.6 Conflict recuperation

This final stage of conflict is the build-up of positive relations between conflicting parties after the conflict episode.

#### 10.7.5 Managing organisational and interpersonal conflict

According to Thomas (1983), people and groups mostly deal with conflict in one or a combination of two underlying dimensions (Rahim and Magner, 1995; Robbins, Odendaal and Roodt, 2003; Nair, 2008). These are the degree to which a party would like to satisfy its own concerns (assertiveness), and the degree to which it would like to satisfy the concern of the other party (cooperativeness).

These dimensions translate into five approaches that most people use to handle and resolve conflict (see Figure 10.14).



**Figure 10.14** Five approaches to handling conflict.  
Source: Adapted from Thomas (1983)

### How do you handle cross-cultural conflict?

Conflict occurring between individuals or social groups that are separated by cultural boundaries can be considered “cross-cultural

conflict". However, individuals, even in the same society, are members of many different groups, for example, by kinship into families or clans, by language, religion, ethnicity, or nationality, by socioeconomic characteristics into social classes, by geographical region into political interest groups, and by education, occupation, or institutional memberships into professions, trade unions, organisations, industries, or political parties. The more complex and differentiated the society, the more numerous are potential groupings. Each of these groups contains aspects of culture, confirming that in any society subcultures will be present. Since some individuals may overlap by being members in many subgroups, that means they are multicultural. Inevitably, conflict across cultural boundaries may occur simultaneously at many different levels, not just at the higher levels of social groupings.

### **Food for thought**

1. Identify the groups that you belong to in your society. This may be religion, language, geographical location.
2. Do you find yourself disagreeing with the norms that exist within some subgroups in your society?
3. How do you think you can learn to accept differences amongst people in your society and other subgroups within your society? (Stretch your thinking here and consider people from other provinces and countries.)

The *competing approach* (assertive, uncooperative) is when a person seeks to satisfy his/her own interests at the expense of the other party (that is, to dominate). In a management-labour relationship, both parties will exercise whatever legal bargaining power they have in a given situation. Such a relationship is characterised by win-lose power struggles.

The *collaborating approach* (assertive, cooperative) refers to the intention to satisfy fully the concerns of both parties by means of integrating the concerns. This approach can also be seen as a problem-solving approach to handling conflict, in which conflicting parties meet face to face to identify the problem and resolve it through open discussion. In a management-labour relationship, both parties will give their cooperation in order to reach mutually beneficial agreements. Attempts are therefore made to find a win-win solution that

incorporates the valid interests of both parties.

The *avoidance approach* (unassertive, uncooperative) is when the conflict is ignored or suppressed, such as when one avoids parties with whom one disagrees. Although conflict is not permanently resolved by this approach, this is a popular short-term solution.

The *accommodating approach* (unassertive, cooperative) occurs when one party places the opponent's interests above his/her own. The party willingly sacrifices the attainment of his/her own goals, to the advantage of the opponent. This usually happens when it is important that the relationship between the two parties is maintained.

The *compromising approach* (intermediate in both assertiveness and cooperativeness) is when both the parties are willing to make sacrifices. It results in moderate but incomplete satisfaction for both parties. There is no clear winner or loser. Both parties win, but also lose to a certain extent. In an employment relationship, this approach is often used during wage negotiations.

These approaches are options from which individuals can choose, depending on the conflict situation. No method is appropriate to all situations, and the appropriate approach will be determined by the source and type of the conflict. For instance, if cooperation between the parties in the long term is important, then the parties should choose an accommodating style. In contrast, a situation might call for a competing style if parties want to win at all costs during specific negotiations.



**Figure 10.15** Negotiation.

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#### **10.7.5.1 Strategies for managing workplace aggression, violence and conflict**

In many organisations, training in interpersonal skills (for example, communication, assertiveness and emotional intelligence) takes place on a regular basis. Topics such as anger management, aggression and conflict management may be integrated in such training, but are much more difficult to execute and are mostly handled in other ways. Handling aggression and conflict is not easy and must be adapted to specific situations and types of aggression and conflict.

Aggression and conflict, and employment, labour, industrial and business relations, always seem to be intertwined because of the clash of economic and other interests between parties (for example, management and employees, the latter often represented by trade unions). In South Africa, the Labour Relations Act, No. 66 of 1995, makes provision for a formal way of handling conflict between employers or employer organisations and trade unions. Not only does it make provision for collective bargaining, but it has also led to the establishment of the Commission for Conciliation, Mediation and Arbitration, a Labour Court, and a Labour Appeal Court to settle workplace disputes.

*Internal formal structures* in organisations are also used to handle aggression and conflict. These include workplace forums, and grievance and disciplinary procedures. In most cases, efforts are made to resolve aggression and conflict in an informal manner, by means of communication, training, and problem-solving approaches, as discussed earlier. Formal structures and procedures are usually only resorted to when informal methods fail. Any forum or opportunity created to allow individual employees and groups to air or express their feelings related to anger, aggression, hostility and frustration in an acceptable manner may facilitate catharsis. This means that employees or groups will find stress-reduction or emotional release, which may prevent further or more serious incidents of aggression and other negative emotions.

In South Africa, under the general duty clause of the Occupational Health and Safety Act (OHSA), No. 85 of 1993, employers are required to provide their employees with a place of employment that “is free from recognisable hazards that are causing or likely to cause death or serious harm to employees”. This responsibility includes duties such as inspecting the workplace to detect and

correct dangerous conditions or hazards in the workplace, and giving adequate warning of their existence.

It is proposed that in confronting violence, a comprehensive approach is required. Instead of a search for a single and simplistic solution, an analysis of the full range of causes that generate violence should be done and a variety of intervention strategies adopted. (Shields and Kiser, 2003; Watkins, 2005). Workplace conflict policies might include the means to identify the potential for violence, procedures to prevent the occurrence of violence, and personal safety training (Shields and Kiser, 2003).

The following guidelines will assist managers to deal with aggression and conflict in constructive ways (Daft and Noe, 2001; Robbins, Odendaal and Roodt, 2003):

- Restructure the organisation, work groups, departments and divisions. This might create uncertainty that might lead to better cooperation and open discussion, where everybody can voice his/her ideas.
- Establish policies and procedures to encourage open communication.
- Bring in outsiders. Add employees with different backgrounds, attitudes or cultures to an existing group.
- Appoint a devil's advocate. Designate a critic to deliberately argue against the majority positions held by the group.
- Encourage competition. Introduce bonuses and other incentive schemes, such as for the best new product or the highest sales.
- Choose managers according to the situation and the characteristics of the group, in order to stimulate ideas and resolve conflict.

#### **10.7.5.2 Dealing with interpersonal aggression and conflict**

One should avoid a win-lose definition of a conflict because it promotes distrust, dislike, deception, rivalry, threats and attempts to undermine the other person or party. It is very important to ensure that the conflict is defined as a challenge and a mutual problem to be solved. This will increase communication, trust, cooperation, liking and affiliation. In this process one can describe the other person's actions with which one is dissatisfied in a short and concrete manner.

One should describe the feelings experienced in reaction to the person's actions by using personal statements such as "I", "me" or "mine" (for example, "I become very distressed and I feel bossed around when I am criticised.") One should also describe what one expects from the other person. Thus, by clearly describing one's feelings and expectations, one takes ownership of one's

feelings. One should also provide reasons underlying one's expectations and feelings.

If the conflict is not resolved and one is confronted by an angry person, it is useful to address the person and make their emotions subside, for example by diverting the angry person's attention to some meaningful task or calm discussion. Also, offering information that would explain the upsetting situation might calm the angry person (Zillmann, 1979). Other techniques for dealing with an angry person include:

- Reduce the "noise" level – request the person to talk calmly.
- Keep oneself calm.
- Acknowledge that the irritated person has been wronged (if true) or, at least, acknowledge their feelings without any judgement.
- Ask the person to explain his/her situation (so as to be able to correct errors tactfully).
- Listen to his/her complaints without counter-attacking.
- Explain one's own feelings in non-blaming "I" statements to show one's care, but set limits on violence. For example, say, "I would like to discuss these issues with you, but I will have to call the police if you cannot control yourself." (Tucker-Ladd, 2000).

There are also other techniques that can be utilised to reduce people's displayed frustration and aggression. When people who feel that they have been wronged act in a confrontational and violent manner, one should ensure they are dealt with fairly. In addition, it is helpful and wise to assist them and meet as many of their needs as possible without reinforcing their aggressiveness or discriminating in their favour. Similarly, one should avoid interactions with them that encourage intense emotions or threats of violence, especially if they are drinking or carrying weapons. It is also wise not to say or do anything that will incite more anger or cause one to appear to be scared, weak or an "easy target" to be manipulated by them. If possible, one should not meet their demands but agree to discuss issues calmly. In most cases, strong retaliation against an aggressive person is the worst thing one can do.

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### **Ethical reader: How can organisations prevent workplace violence?**

When any act of workplace violence occurs, victims find themselves

wondering how they could have seen it coming. To help predict and prevent workplace violence, Harvey works with the model of perceptive predictors of aggression, which details internal and external factors that affect organisational violence. This model states that the way in which a person perceives triggering events determines whether or not they will react violently. If a person has what is known as a “hostile attribution style”, they will be more likely to attribute a work setback to outside factors and blame others.

Hostile attribution style is commonly seen in violent acts where perpetrators blame their bosses, colleagues, or their company for their work-related problems. An example of this would be an employee that is not promoted and they blame their immediate supervisor for blocking the promotion. Someone who would have internalised the situation would realise that their poor performance contributed to them not getting the promotion. Hence they would deal with the disappointment in a calmer manner.

What can organisations and employees look for as warning signs for workplace violence?

- The typical red flags are people who are quick to anger, those people that when something goes wrong, they are screaming and shouting. It must be noted though, that most people who have a hostile attribution style are hardly outwardly violent. However, when you investigate further, the things that these people say often do indicate a hostile attribution style, for example they will blame other people for bad things that happen to them (externally placing the blame) but they may never actually get violent.
- By using the situational perspective of workplace violence as a guide to predicting violent behaviour, if the line managers expect that someone in the company is a “ticking time bomb”, the key here is to look at the situation and decrease the likelihood of conflict as much as possible.

What can organisations and employees do to prevent workplace violence?

- Organisations must ensure that policies and procedures on acceptable conduct are clearly documented and furnished to all employees. Organisations can ensure that employees are

disciplined in an ethical manner. Disciplinary measures must be clearly documented in these policies and must be aligned to the labour laws of the country.

- Organisations can also revisit their practices and culture to see which ones induce violent behaviour within the organisation.
- In some instances the organisation or line managers may be openly mistreating a group of employees and thinking they may not take offence to this act. If employees need to be reprimanded, it must be done as professional and discrete as possible to avoid possible aggressive behaviour from the employees.
- It is important for organisations to understand that they cannot prevent every violent act committed by employees, but they can try to contain anger of employees in a professional and tactful manner. Ethical considerations with regards to reprimanding employees and providing a safe work environment for all must be taken into cognisance by management at all times.

Organisations can consult the Labour Relations Act and Occupational Health and Safety Act with regards to guidelines on how to provide a safe work environment, and most importantly, procedures on how to handle and manage labour disputes to avoid workplace violence.

Adapted from *How Can Organisations Prevent Events like the Manchester Shooting?* by Stephany S. Below, from <http://www.siop.org/Media/News/violence.aspx>

## 10.8 SUMMARY AND CONCLUSION

Social interaction is important in the functioning of individuals and groups, both to define identity and to reap the positive advantages of interaction and positive relationships. Poor social interaction may lead to stress and disruptive effects in interpersonal behaviours, isolation, antisocial behaviour, withdrawal and break-ups, and leave people devoid of the buffer effects of the empathy and social support obtained in personal relationships. Many organisational dynamics are determined by social structures or social relationships between people and in and between work groups.

Affiliation and attraction, as well as aggression and conflict, represent prosocial and antisocial behaviours in people, and may reflect the type and quality of attachment behaviours and interpersonal styles acquired during early and later developmental stages. In fact, these behaviours and processes are intricately involved in the psychological climate and dynamics in groups and organisations. How conflicts are resolved may have positive or negative consequences for the employees and organisations with regard to employee relations, health and performance.

Social skills are important to people in many contexts. In occupational contexts, they are work-performance competencies and help in coping with the stressors of life and work. Human resources practitioners and counsellors need to understand the nature of social behaviour and to have social skills so that they are able to influence other people and conflict situations.

It may be that one of the greatest human tragedies in life happens daily. Firstly, many people have incorrect assumptions and social constructions about others and how they are affected by the presence of others, or how they influence others. Secondly, there are many misunderstandings that occur as a consequence of poor interpersonal and communications skills. In South Africa, it seems as if new empowerment policies, with a renewed emphasis on humanistic principles, human rights, equality, redistribution of resources, reconciliation and healing of disturbed relationships, have as yet not provided the expected outcomes of facilitating improved relationships between diverse groups and individuals. Perhaps the time has come to make use of the expertise of social and positive psychologists to help solve relationship problems in all spheres of life.

There are many interventions that can be used to improve relationship behaviours and decrease levels of aggression and conflict, especially in traumatised communities. Forgiveness may be a neglected area in the education and training of people. Forgiveness is related to personality and attachment styles, which implies that people must first understand themselves before attending to other relationships (Maltby and Macaskill, 2007). Forgiveness may contribute to general happiness in life, which is also related to various types of satisfactory affiliations, such as having a good marriage, having a good love life, having many friends, enjoying good social support, and being happy at home and at work (Argyle, 1992; Myers, 1996).

## **10.9 ASSESSMENT ACTIVITIES**

## Multiple-choice questions

1. Jane tells Jacky that she likes her and would love to be friends with her. One statement that stood out to you as Jane spoke to Jacky was: "There's something about you that I like."  
Jane's statement may be described by which of the following prosocial behaviours?
  - a) attraction
  - b) affiliation
  - c) reciprocity
  - d) dissimilarity
  - e) uniqueness.
2. Jabu mostly finds that people from the same racial group are attracted to each other. This phenomenon could be explained by \_\_\_\_\_.
  - a) proximity
  - b) social exchange
  - c) complementarity
  - d) genetic similarity
  - e) perceived uniqueness.
3. Deindividuation is associated with \_\_\_\_\_.
  - a) feeling isolated
  - b) self-monitoring behaviour
  - c) personal feelings and cognitions
  - d) higher levels of social responsibility
  - e) a focus on external events rather than on personal feelings.
4. Thandi's friendship to Kathy has always puzzled you. Thandi is broad built and very outgoing, whilst Kathy is short, frail and doesn't seem to enjoy being around crowds.  
After studying this chapter you understand that the relationship between the two is best described by \_\_\_\_\_.
  - a) attraction
  - b) reciprocity
  - c) uniqueness
  - d) complementarity
  - e) repulsion hypothesis.
5. Abbey is not well liked by her line manager. When she applied for a job in another section, her manager influenced the decision-makers not to select her. Her manager constantly gives her very unpleasant or

boring tasks to complete, and tells other people that Abbey has an unstable personality, which is not true.

The above is an example of \_\_\_\_\_.

- a) hostile aggression
- b) workplace bullying
- c) racial harassment
- d) sanctioned aggression
- e) hostile attributional bias.

## Answers to multiple-choice questions

1 = a; 2 = d; 3 = e; 4 = d; 5 = b

## Issues for discussion and practice

1. Detail possible sources of conflict, giving examples for each source.
2. Define and discuss affiliation, aggression and conflict, highlighting similarities and differences between these behaviours.
3. How would you advise a line manager on what constitutes workplace bullying?
4. As an I-O psychologist, the CEO of the organisation you are working for has asked you to draw up guidelines on how to manage workplace aggression and conflict. Draw up guidelines highlighting any legislative framework that you would consult in drafting your guidelines.
5. Critically discuss similarity and dissimilarity giving work-related examples.

## CASE STUDY

**Read and analyse Daisey's story below and reflect on the questions following the case study.**

Daisey looks into the mirror and wonders why her? What did she do to deserve such treatment? She reflects on how she became dejected, angry and couldn't trust anyone at work.

It all started when she joined company XYZ, a reputable engineering company. She joined as an intern to the HR manager, as she had just obtained her BCom in Industrial and Organisational Psychology. She felt lucky as she had only stayed home for 3 months after graduating before she was called for an interview and

started working a month later.

She looked forward to her first day at work. She ensured she looked as professional as possible. In her trousers suit, she called on the human resources manager. He was a mature gentleman, old enough to be her father. Daisey immediately looked to him as a father figure and trusted him.

After the orientation and getting signed up, Daisey took a walk round the plant with the HR manager to meet the line managers. Something stood out to her as she toured the plant. It was male dominated. Seemingly the female staff were at the administration building, the number of which she could count on one hand. Alarmed by this, she was determined to make the most of her internship year.

Things went well for the first month, then things started going wrong in the second month of her internship. One of the line managers, tasked to train her on doing a job analysis, would pass comments about her clothing, and how it suits her body frame. Daisey found this comment uncomfortable and informed the HR Manager, who promised to look into the matter and have a talk with the line manager. This did not happen, and the comments from the line manager deteriorated to making explicit sexual comments.

Daisey lodged another complaint with the HR manager, who then blurted out:

“That’s why we don’t like hiring females. You complain about anything and everything. It’s a jungle out there and you need to learn to survive. If you can’t stand the heat, get out of the kitchen, lassie!”

It was at this moment that Daisey realised she was not going to win this battle. She vested so much trust in a man who merely condoned bad behaviour and was not prepared to do anything to make things right. The other females also confirmed that when they started, the line managers would make unsolicited remarks, but “they get tired and don’t act on it anyway”.

Determined to get justice, she consulted senior management on the issue, who immediately took up the matter and attempted to resolve the conflict between the parties. In their defence, the line manager said he was just “playing with the little girl”, whilst the HR manager said he was “having a bad day when she came through with the second complaint”. It became apparent to senior

management that there was a need for policies to address possible conflicts and to clearly identify what constitutes unacceptable behaviour in the workplace.

Though she managed to raise attention to the issues around possible conflict areas in the workplace, Daisey still felt unhappy and left the organisation. Every time she was at work she was not sure of her safety and feared that she might be made to “pay” for reporting the line manager and HR manager to the “bosses”.

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1. Identify and explain the type of aggression that Daisey was exposed to in the workplace.
2. Discuss why you think Daisey experienced this type of behaviour from her superiors.
3. Identify and discuss the possible prosocial behaviours that developed between Daisey and the HR manager when she first started working for XYZ.
4. How would you have advised the HR manager to manage the situation between Daisey and the line manager? Highlight legislation that you would consult in advising the HR manager.

## **CHAPTER 11**

# **Group behaviour and other social processes in organisations**

*Frans Cilliers and Amanda Werner*

## 11.1

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## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- motivate the use of groups in organisations
- illustrate and explain groups as part of the organisational system
- define groups and describe types of group
- discuss the stages of group development
- explain various aspects of group structure
- discuss how group processes influence the effectiveness of groups
- explain the facilitation of social learning in groups
- describe the organisation as a social system
- indicate the role and process of organisational socialisation
- discuss organisational change and development.

### 11.1 INTRODUCTION

The contemporary work environment is characterised by flat organisational structures, broad-based decision-making, multidirectional communication and collaboration. The building blocks of this type of organisation are groups and teams. It is estimated that 65 to 95% of knowledge workers across a wide range of industries and occupations in the United States and Europe are members of more than one project team at a time and that in some companies it is common for people to be members of five, ten, twelve or more teams at a time (O’Leary, Mortensen and Woolley, 2011). In the manufacturing industry, the use of self-directed teams, also called autonomous work teams or mini-cells, has become commonplace in the quest to improve competitiveness through continuous quality improvements.

The interaction of people in groups can take many forms. For example, an investment company may have a monthly meeting where the chairperson manages the agenda, one member shares crucial information, group members confidently discuss issues, another member synthesises the different contributions whilst others do not participate at all. Another example could be a team-building event, where there might be less given structure and fewer rules, and each member is allowed to participate freely and equally. Also think about a

very informal group setting, such as when a group of colleagues from different departments have coffee together and talk about a topic of mutual interest, which can either be work-related or not.

The organisation itself can also be considered a group. In addition to making a contribution to the organisation through their own jobs, employees also collectively contribute to groups within the organisation and the whole organisation as a social system. Work groups are powerful sources for employees' identification, need satisfaction and support, but can also cause stress and frustration.

Knowledge and competencies related to group behaviour are a fundamental requirement for a psychologist in the work context to understand organisations as open social systems. Organisations exist and function according to the attributes and interactions of all their subsystems, of which each employee and group are a part. This is why *group behaviour* is an important component in social-psychological studies and in organisational psychology, which are both core study fields in training models for professional psychologists. Both the functioning and the performance of organisations are primarily achieved through work teams, whilst groups can also be instrumental in organisational change.

The *aim* of this chapter is to investigate the attributes and dynamics of groups, introduce organisations as open social systems, discuss socialisation into organisational culture, and briefly explain the processes involved in social change and development in organisations.

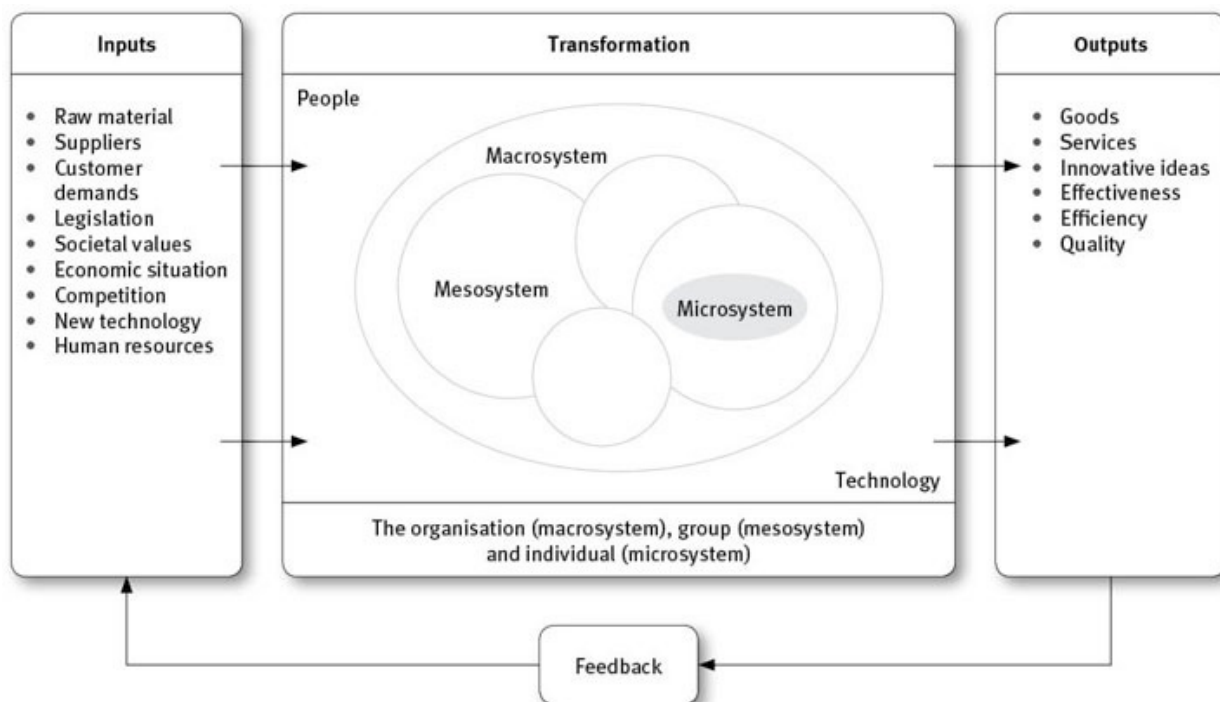


**Figure 11.1** Construction team figuring out a problem.

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## 11.2 GROUPS AS PART OF THE ORGANISATIONAL SYSTEM

The Systems Model provides a general framework from which an organisation, and groups in the organisation, can be diagnosed and studied (Cummings and Worley, 2009; Hurter, 2010). The Systems Model presents the organisation as a living and open system consisting of groups, individuals, processes, technology and other components, which are all interdependent. Furthermore, the organisation exists in a constantly fluctuating environment which exerts influence on the organisation. The Systems Model is illustrated in Figure 11.2.



**Figure 11.2** The organisation as a social system.

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The *open-systems approach* views the organisation as an open system (with permeable boundaries) that is engaged in active transactions with the environment. The organisation receives input (such as material and customer

demands) into the organisational system, which is transformed by the system into outputs (goods, services or ideas). The organisation has to adopt optimal social and technical systems that will enable it to successfully survive in a competitive environment. The social component consists of individuals, groups and their work relationships, as well as the organisational culture, and the technical component consists of tools, machinery, processes and techniques. The *systems view* accepts that the organisation acts as a macrosystem, the group as a mesosystem, and the individual as a microsystem, all within a changing environment, and that these systems are interdependent, in constant interaction, and responsible for the system's outputs. This chapter focuses on the social component of the organisational system and illustrates that no individual or group operates in isolation from one another or the organisation, but that ideally, the various systems should function synergistically towards attaining the organisational goals.

### **11.2.1 Groups as a field of study**

Against this background, it can be seen why the study of groups is very important. Many variables related to *group structure*, *group processes* and *group dynamics* determine how effective groups contribute to organisational strategy, and are focus areas of the study of groups.

The literature on group behaviour stems from social psychology, group psychology and cross-cultural psychology. The focus is on the influence of the group on individual behaviour, feelings, attitudes and beliefs, the study of the behaviour of groups, as well as cultural factors and socialisation.

Group structure refers to variables in groups that provide parameters for orderly group functioning. These variables include leadership, norms, roles, status and composition. When these variables disintegrate, the group will cease to exist or be marked by intense conflict and dissatisfaction.

Group processes refer to the patterns of interaction in a group, which includes communication, decision-making and problem-solving and the effect of these processes on group performance (Brown, 2011). Groups can create outputs that are greater than the sum of the individual outputs of members.

Group dynamics refer to the psychodynamics of groups and the unconscious elements that influence the individual as a microsystem, the group as a mesosystem, and the organisation as a macrosystem (Huffington, Armstrong, Halton, Hoyle and Pooley, 2004). An example of unconscious behaviour is when group members pair off into smaller groups to deal with the anxiety that is

associated with being part of a group.

The organisation as a macrosystem, consisting of individuals and teams, can also be perceived as a group. This becomes more evident when one organisation is compared to another and differences in values, beliefs and behaviours are noted. Each organisation has a unique culture that stems from the interactional patterns of people in the organisation which reinforces behaviour in a perpetual pattern. The development of an organisational culture in line with the vision and strategic plan of the organisation currently receives much attention from industrial psychologists, human resource practitioners and senior leaders.

### **11.3 DEFINITION OF GROUPS**

A *group* is generally defined as two or more persons who interact interdependently to share and achieve particular objectives. Each person may have a defined area of responsibility but members help each by sharing ideas and information (Robbins and Judge, 2009). Schein (1980:145) defines a group as any number of people who are in interaction with one another, are psychologically aware of one another and experience one another as a group. This implies that a group shares some structure and a common identity. The above definitions highlight the defining characteristics of groups as follows:

- social interaction, which allows people to communicate and to exert influence on one another
- shared common goals and targets in order to achieve certain objectives
- group structure, such as tasks, roles and rules that direct interaction over and across time and situations
- group members' acknowledgement or perceived sense of being part of a group, which defines a common identity

The type of group will influence how the group is defined. Teams, for example, are differentiated from groups in general in that they engage in collective work that requires joint effort (Robbins and Judge, 2009). Teams attain positive synergy that enables them to create an end-product that is worth more than the sum of the individual inputs. Colquitt Le Pine and Wesson (2010) define a team as a group of two or more people who work interdependently over a period of time to accomplish common task goals.

### **11.4 TYPES OF GROUPS**

The different types of groups illustrate the extent to which groups form an integral part of the organisation. Groups can either be formal or informal, but other classifications can also be made:

- *Formal groups* refer to those defined by the organisation's structure, with designated work assignments and established tasks. All activities that one should engage in are stipulated by and directed towards organisational goals.
- *Informal groups*, in contrast, are alliances that are neither formally structured nor organisationally determined. Informal groups develop spontaneously as people seek social contact with each other. Informal groups provide a very important service by satisfying their members' social needs. Sometimes they also act as a support group to members in times of difficulty, and could have a significant effect on members' behaviour.
- A *command group* is an example of a formal group that is determined by the organisation's structure. It is composed of subordinates and the manager to whom they directly report. A director and his/her managers form a command group.
- A *task group*, which is also organisationally determined and therefore a formal group, represents those working together to complete a specific task. A task group can consist of individuals that belong to different command groups or departments. In this case, it can be called a "cross-functional task group". Resolving a dispute an employee has with the manager, for instance, may require communication and coordination between a director, a manager, an I-O psychologist and a union representative. Such a formation would constitute a task group.
- An *interest group* exists when people, who might or might not be aligned into common command or task groups, affiliate to attain a specific objective with which each is concerned. Employees who stand together to improve fringe benefits can be classified as an interest group.
- A *friendship group* exists when individual group members have one or more common characteristics. Social alliances, which could also extend outside the work situation, can be based on similar age, residence in the same neighbourhood, or participation in the same after-hours activities or hobbies.
- A *self-management group* consists of 4 to 18 highly skilled and trained employees who function interdependently with a minimum of direct supervision but still within clearly defined boundaries, and who are responsible for the regulation, organisation and control of their jobs in order to deliver a well-defined segment of completed technical or knowledge work,

a good or a service to an internal or external client. In order to function effectively, the members need to have a high level of interpersonal, self-management, technical and business knowledge, and learning skills.

- A *virtual group* is characterised by members that work geographically apart from each other and only communicate and interact through computer-mediated communication or other distance communication technologies. Irregular communication patterns in virtual groups influence work patterns, decision-making, understandings about the work and relationships. Managing virtual groups is complex and requires fundamental knowledge of group dynamics that are typical of all types of groups (Berry, 2011).

## 11.5 GROUP DEVELOPMENT

Two popular models that explain how groups develop are the Five-Stage Model and the Punctuated-Equilibrium Model. The Five-Stage Model presents group development as a linear process, whilst the Punctuated-Equilibrium model is less linear. Knowledge of group development enables the I-O psychologist, group leaders and group members to proactively anticipate and manage group processes in order to create synergy (attitudes of cooperation or combined action) amongst group members.

### 11.5.1 The Five-Stage Model of Group Development

Figure 11.3 illustrates the Five-Stage Model. This model was developed by Tushman and Jensen in the 1960s. Every stage is characterised by certain emotions and behaviours that constitute group dynamics.



Figure 11.3 The Five-Stage Model of group development

*Forming* is characterised by a great deal of uncertainty (as an emotional undertone) about the group's purpose, structure and leadership. Group members are aware of a vacuum and dependency manifests. Members "test the waters" to determine what types of behaviour are acceptable. The group defends itself against discomfort by making use of defence mechanisms such as suppression, denial and projection – especially towards a leader who does not help to remove the discomfort. This stage is complete when members start to think of themselves as part of a group.

*Storming* is a phase of intragroup conflict. Members accept the existence of the group, but there is resistance to the constraints that the group imposes on individuality. Furthermore, there is conflict over who will control the group. Aggression also manifests in the form of a fight (against authority or peers) or flight (leaving the group or talking about irrelevant issues to escape from a difficult current situation). Another way to cope with the uncertainty is to form pairings (such as management *others*, *males*/*females*, black people/white people, or members with long tenure/short tenure). When this stage is complete, there will be a relatively clear hierarchy of leadership within the group.

*Norming* refers to the development of a common set of expectations that defines desired behaviour in the group. Rules are laid down in explicit or implicit ways. When group members buy into these expectations and rules, close relationships develop and the group demonstrates cohesiveness. There is now a strong sense of group identity and camaraderie.

*Performing* manifests in a fully functioning and accepting group. Group energy moves from getting to know and understand one another to performing the task at hand. Group members interact effectively to solve problems, make decisions and execute tasks. For permanent working groups this is the last stage of development.

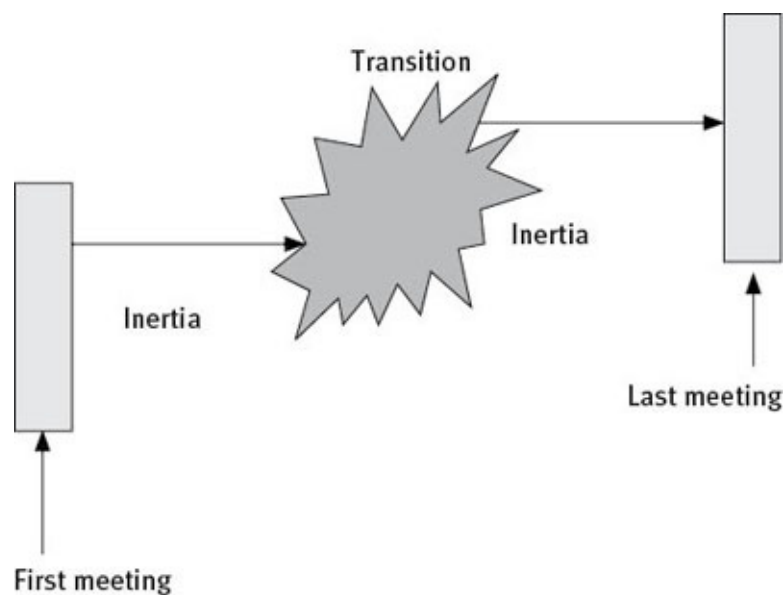
*Adjourning (or mourning)* happens when the task is completed, as in a temporary group such as a committee. The group prepares for its disbandment. The group wraps up activities and reflects on its success and performance over time. There is a sense of leaving, "dying" and preparing for what follows. More permanent groups might experience these feelings when a group member leaves.

Many interpreters of this model have assumed that a group becomes more effective as it progresses through the first four stages. Whilst this assumption

might be generally true, what makes a group effective is more complex than this model acknowledges. In some circumstances, high levels of conflict may be conducive to high performance from the group. This means that situations may occur in which groups in the storming phase outperform those in the norming or performing phases. Similarly, groups do not always proceed clearly from one stage to the next. Sometimes several stages go on simultaneously, as when groups are storming and performing at the same time. Groups even occasionally regress to previous stages. Therefore, even the strongest supporters of this model do not assume that all groups follow the five-stage process precisely, or that the performance phase is always the most important.

### 11.5.2 The Punctuated-Equilibrium Model

This model suggests that groups do not develop in a universal sequence of stages. What is important is the *consistency of the timing* when groups form and change the way they work. This model is relevant to specific groups, such as task groups or project groups, that are set up to attain a predefined goal within a predefined period. The model is illustrated in Figure 11.4.



**Figure 11.4** The Punctuated-Equilibrium Model.

Figure 11.4 shows that the *first meeting* is very important as it sets the group's direction. During this meeting, a framework of behavioural patterns and assumptions, through which the group will approach its project, emerges. The

first meeting provides a golden opportunity to lay the foundation for group effectiveness. However, most groups do not consciously discuss how they will approach a task and what behavioural standards are expected and this opportunity therefore is mostly lost. Once set, the group's direction (including behavioural patterns) becomes "written in stone" and is unlikely to be re-examined throughout the first half of the group's life. This is a period of *inertia*, when the group tends to become locked in a fixed course of action. Even if the group realises that something is amiss, it is incapable of stepping up to make corrections.

One of the more interesting discoveries about this model was that each group experienced its *transition* at the same point in its life – precisely halfway between its first meeting and its official deadline – despite the fact that some groups might spend as little as an hour on their project, whilst others might spend six months. It is as if the groups universally experience a mid-life crisis at this point. The midpoint is like an alarm clock, heightening members' awareness that their time is limited and that they need to "get moving". This transition ends the first phase and is characterised by a concentrated burst of changes, the dropping of old patterns and the adoption of new perspectives. The transition sets a revised direction for the second phase.

The second phase of the Punctuated-Equilibrium Model represents a *new equilibrium* or period of inertia. In this phase, the group executes plans created during the transition period. The group's last meeting is characterised by a final burst of activity to finish its work.

McDowell, Herdman and Aaron (2011) demonstrated how the introduction of a *team charter* in the early development phase of teams facilitated group effectiveness. A charter involves the systematic planning and drafting of a course of action to attain an objective. These plans are characterised by a future orientation, extensive interaction between team members, systematic analyses of strengths, weaknesses, opportunities and threats, a clear definition of roles and functions, and development, communication and allocation of resources to action plans. The research showed that groups that were exposed to a charter reported greater levels of team communication, team effort, team cohesion and mutual support than groups that were not exposed to a charter. This implies that when groups adopt a charter during their first meeting the group will function at a higher level right from the start and when they make a transition halfway through its existence they can reach optimal levels of performance.

## 11.6 GROUP STRUCTURE

A working group is not an unorganised mob. It has a clear structure that shapes the behaviour of members and explains and predicts individual and group behaviour. Structure therefore creates order and stability in a group. The structural variables that create order in a group are illustrated in Table 11.1. Structural variables include formal leadership, roles, norms, conformity, group status, group size and composition.

**Table 11.1** Structural variables providing a framework for group activities

Structural variables and their effect on group effectiveness	
Leadership	Provides task direction, guidance and information; monitors group processes
Roles	Define expectations and contributions
Norms	Define acceptable standards for behaviour
Conformity	Ensured predictable behaviours, based on norms
Status	Defines authority and respect
Group size	Facilitates either task implementation (smaller groups) or creative contributions (larger groups)
Composition	Ensures a match between group competence and task demands

### 11.6.1 Leadership

A leader influences team members to enthusiastically work towards the attainment of the group's objectives. The leader is typically identified by a title, such as manager, supervisor, foreman, project leader, task-force head or committee chair.

A lot of research has been done to identify the characteristics of effective leaders. Common characteristics identified include intelligence, achievement orientation, emotional intelligence and integrity. Effective leaders are concerned about both the task and relationships in the team.

However, situational variables, such as the structure of the task and the characteristics of the followers, moderate the effect of leadership on group performance. Whilst participative leadership seems to lead to more satisfaction than an autocratic style, it is not always the most effective approach. In some

situations, a group guided by a directive, autocratic leader will outperform its participative counterpart.

Effective leaders encourage learning in the team and provide opportunities for shared leadership.

### 11.6.2 Roles

Group members have distinctive roles in their groups (Robbins and Judge, 2009; Wood et al., 2004). *Roles* refer to a set of expected behaviour patterns attributed to someone occupying a given position in the group. The understanding of the role is often complicated by the individual playing different roles in an inconsistent way. A number of diverse roles, both on and off the job, are filled (or played) in this way. To understand and manage group behaviour, it is important to grasp the role that the individual is currently filling.

An example is that of an individual with various, often conflicting, roles at work, home and in society. These different roles demand various behaviours, which are difficult to integrate into the normal flow of life.

People in groups, and also managers, can assume various types of roles, which might either facilitate or inhibit group effectiveness. Task-oriented roles facilitate and coordinate decision-making, relations-oriented roles encourage group morale, and self-oriented roles serve individual needs at the expense of the group and its functioning, according to Hoffman (in Furnham, 1997:440–441). The box below illustrates some of these roles.

#### Which roles do you recognise in your groups?

Task-oriented roles:

- *Initiators* usually have fresh or modified ideas for considering group goals and tasks, in order to solve possible problems in group functioning.
- *Information-seekers* clarify issues and provide valid and relevant information and facts.
- *Evaluators* assess the group's functioning, such as whether it is to the point, practical or logical.

Relations-oriented roles:

- *Encouragers* facilitate acceptance and warmth towards group members by agreement and supportive behaviours.

- *Gatekeepers* encourage participation by inviting all members to participate or by eliciting responses from quiet members.
- *Followers* are usually just going along passively as friendly group members.

Self-oriented roles:

- *Blockers* behave negatively and usually resist and oppose suggestions and decisions, or might bring back old or solved issues.
- *Dominators* try, by using flattery, assertion or interruptions, to take control of the group or to influence particular members of the group.
- *Avoiders* purposefully keep a distance from others, resisting issues passively by not taking part.

#### 11.6.2.1 Role identity

A person demonstrates role identity by displaying attitudes and actual behaviours that are associated and consistent with a role. The individual has the ability to shift roles rapidly when recognising that the situation and its demands require changes. This could happen if a pro-union attitude changes to a pro-management attitude, for example, or when an individual is promoted to a senior management position.

#### 11.6.2.2 Role perception

People's view of how they should act in a given situation is described as their *role perception*. These perceptions are formed from stimuli around them, such as friends, books, movies, and television. Even a prominent television series about medical doctors or lawyers, for example, might influence perceptions of how to behave. The interpretation of how to behave will lead to specific behaviour. Legislation, company policies, role models and articles on the empowerment of women, contribute to how women reconstruct their role at work and at home.

#### 11.6.2.3 Role expectation

*Role expectation* is the way in which others believe the individual should act in a given situation, for example at home, at work or in the community. The expectations about how a minister, for example, should act (possibly dignified)

are quite different from those about how a rugby player, for example, should act (possibly aggressive and inspiring).

When role expectations are concentrated into generalised categories, *role stereotypes* evolve. An example is the role stereotype of women at home versus women in careers. Nowadays, roles at home are often shared by males and females. Women are found at all levels of the labour market, and many aspire to professional and managerial positions, rather than sticking to traditionally female tasks and jobs. Because of this, many people have changed their role expectations of women, and similarly, many women carry new role perceptions. However, many people have not changed in this way, which creates conflict within themselves, and between them and others.

Expectations in the workplace are embodied in the *psychological contract* between employees and their employer, an unwritten contract about the expectations the two parties have of each other. A manager might expect an employee to take initiative and solve problems whilst an employee might expect interesting learning opportunities. Problems may occur when role expectations implied in the psychological contract are not met. If management does not keep its part of the bargain, negative repercussions on employees' performance and satisfaction can be expected. When employees fail to live up to expectations, the result is usually some form of disciplinary action up to and including discharge.

The psychological contract should be recognised as a “powerful determiner of behaviour in organisations” (Robbins and Judge, 2009). It points out the importance of accurately communicating role expectations.

#### **11.6.2.4 Role conflict**

When individuals belong to more than one group, they are often confronted by *different role expectations*. Students experience this first-hand when they have to juggle tests, assignments, and projects related to different subject groups. In addition, they also face different demands stemming from social groups they belong to, such as family, friends, sports and community groups. In organisations, employees and especially knowledge workers, belong to multiple groups which expose them to a broad social network and multiple sources of information. This multiple membership could enhance both productivity and learning as employees multiskill and are exposed to new learning situations. However, it also challenges individuals' ability to cope with multiple demands on their attention and time. The relationship between multiple team membership and learning and productivity is moderated by the number of teams a person

belongs to and the variety the person is exposed to. If the number of teams a person belongs to increases but the variety stays the same, the person will be more productive but learn less. This increase in productivity will reach a plateau and then decline as the person becomes less able to deal with increasing productivity demands. If the number of teams the person belongs to stay constant and variety increases, learning will increase whilst productivity stays the same. Learning will also reach a plateau but not decline, as learning cannot be undone. To optimise the benefits of multiple team membership, both employees and managers need to actively manage the timing and selection of switching between teams, coordinating schedules across teams and defining role expectations. For example, individuals can 'time-box' portions of their time to reduce dividing their attention, minimise unscheduled switching due to competing external demands and gravitating towards tasks that are easier to execute. Managers can help employees define whether their roles are core or peripheral and schedule regular meetings for feedback and reflection to enhance both productivity and learning (O'Leary, Mortensen and Woolley, 2011).

When individuals cannot deal with divergent role expectations, frustration and tension is experienced, which might lead to the following responses:

- withdrawal, stalling, negotiation or redefinition of the facts or the situation to make them appear congruent (not in conflict)
- giving formalised bureaucratic responses (for example, an employee being faced with the conflicting requirements imposed by head office on the one hand and a dissatisfied customer on the other, resolves the conflict by relying on organisational rules, regulations and procedures).

### **11.6.3 Norms**

Norms exist in every life situation, such as switching off cell phones during meetings, employees not criticising their bosses in public, and family members supporting one another. All groups have established *norms*, meaning standards of behaviour that are shared by the group's members. Most norms emerge from the repetitive interaction amongst group members. Members unconsciously observe which behaviour is emphasised, repeated or spoken about, and which behaviours are rejected. Peer pressure, guilt, shame, mutual monitoring and sanctions are mechanisms that lead to the adherence of norms. Norms can also develop from explicit statements made by the leader or group members or critical incidents in the group's history. For example, a group leader could upfront announce that cell phones should be switched off, or alternatively,

reprimand a person after the person has rudely answered a cell phone call during a meeting, which will signal to all members that it is unacceptable behaviour to have their cell phones on during meetings.

Each group's norms are unique. However, work groups typically have norms related to performance, appearance, informal social arrangements and resource allocation. Examples of performance norms include regularly working during lunchtime, consistently performing better than other groups and meeting deadlines. Appearance-related norms include following a certain dress code, acting professionally and having a presence in the organisation (being noticed). Social arrangement norms are evident when members habitually sit together or hang out with each other and examples of resource allocation norms include providing only group members who regularly attend meetings with documentation or name tags.

Norms are important because they ensure consistent and predictable behaviour in the group, are typically aligned with the group's goals, and give members a sense of identity. Group members feel relaxed because they know what is expected of them and what they can expect of other members. Conforming to the core norms in a group increases the chances that the group will succeed and survive over a longer period.

#### **11.6.4 Conformity**

Conformity implies adhering to group norms. Members of groups usually desire acceptance by the group and are therefore willing to conform to the group norms. Groups also put pressure on members to conform to the group's norms in order to create stability and to attain group goals.

Individuals do not conform to all the pressures of all the groups they belong to, because people belong to many groups whose norms vary. The groups might even have contradictory norms. People are more likely to conform to groups that they regard as important. These groups, called *reference groups*, have the following characteristics:

- The individual is aware of other members who belong to the group.
- The individual defines him-/herself as a member, or would like to be a member.
- The individual experiences the group members as significant to him-/herself.

Group norms put group members under pressure to conform because members do not want to be seen as different to others. Generally an individual will

experience extensive pressure to change an opinion of objective facts if his/her opinion is perceived as too different from those of others.

### 11.6.5 Status

Status is a *socially defined position* or *rank* given to groups or group members by others. Many aspects of life, including organisational life, are ruled by status – there seems to be no such thing as a status-less society. Even the smallest group will develop roles, rights and rituals to differentiate its members. Status is an important variable in understanding human behaviour, because it is a significant motivator and there are major behavioural consequences when individuals perceive a disparity between what they and what others believe their status to be.

Status can be formal or informal, and is awarded as follows:

- *Formal status* is awarded through titles or facilities. This is the status that goes with being recognised as someone special, or receiving an award. In the organisational context it refers to status symbols such as a large office, an impressive view, titles, high pay, fringe benefits and preferred work schedules. Whether or not management acknowledges the existence of a status hierarchy, organisations are filled with amenities that are not uniformly available, and which hence carry status value.
- *Informal status* is awarded through attributes such as education, age, sex, skill and experience. Anything can have status value if others in the group evaluate it as status-conferring. This kind of status is not necessarily less important than the formal variety.



**Figure 11.5** How would you rank the status of each person in this photo? What variables most likely contribute to perceived status difference?

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*Status equity* refers to the belief that the status hierarchy is equitable. When inequity is perceived, it creates disequilibrium that results in various types of corrective behaviour. The trappings that go with formal positions are also important elements in maintaining equity. When it is believed that there is inequity between the perceived ranking of an individual and what that person is given by the organisation, *status incongruence* can be expected. Examples of this kind of incongruence would be more desirable office space held by a lower-ranking individual, and paid country-club membership provided by the company for clerks, but not for directors. Employees expect the things an individual has and receives to be congruent with his/her status.

Groups generally agree within themselves on status criteria and, hence, there is usually high concurrence in group rankings of individuals. However, individuals can find themselves in a conflict situation when they move amongst groups whose status criteria are different, or when they join groups whose members have heterogeneous backgrounds. For instance, business executives might use income, wealth or the size of the companies they run as determinants of status. Academics might use the number of grants received or articles published. Blue-collar workers might use years of seniority, job assignments or

bowling scores. Students might use academic performance, leadership positions, or even physical belongings such as the type of cell phone or computer owned. In groups made up of heterogeneous individuals, or when heterogeneous groups are forced to be interdependent, status differences can initiate conflict as the group attempts to reconcile and align the differing hierarchies.

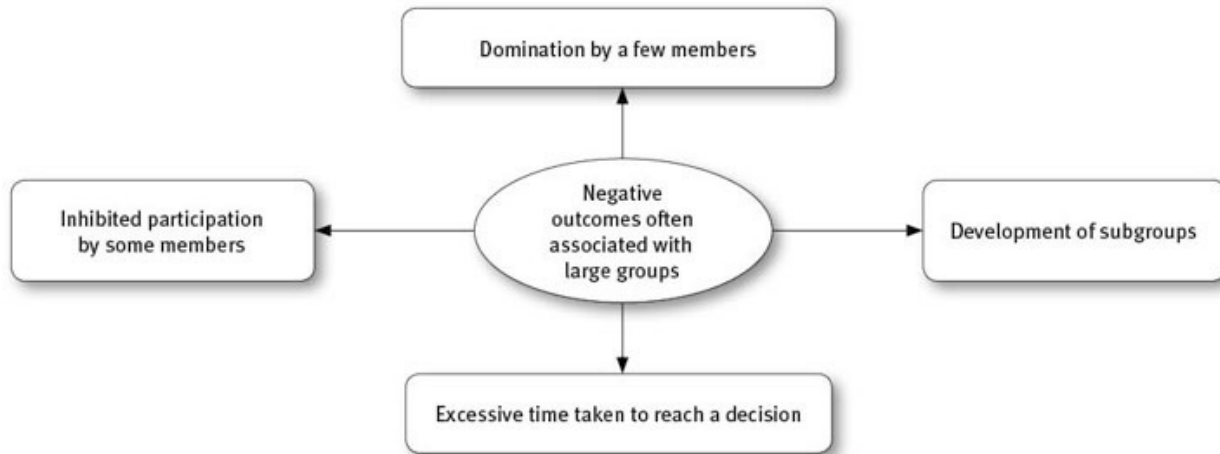
#### **11.6.6 Size**

A group's size affects the group's overall behaviour, depending on what other variables play a role. Smaller groups tend to be faster at completing tasks than larger ones. However, if the group is engaged in problem-solving, large groups consistently get better results than their smaller counterparts. Deciding on the ideal size for a group is not easy, but the following parameters can be considered:

- Large groups (those with 12 or more members) are good for gaining diverse input. If the goal of the group is fact-finding, larger groups should be more effective.
- Smaller groups are better at doing something productive with that input. Groups of approximately seven members tend to be more effective for taking action.

The research on group size leads to two additional conclusions:

- Groups with an odd number of members tend to be preferable to those with an even number. Having an odd number of members eliminates the possibility of ties when votes are taken.
- Groups made up of five or seven members combine well the best elements of both small and large groups. They are large enough to allow for diverse input, yet small enough to avoid the negative outcomes often associated with large groups. (These negative outcomes are shown in Figure 11.6.)



**Figure 11.6** The negative outcomes associated with large groups.

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One of the most important findings related to the size of a group has been labelled *social loafing or free riding*. This is the tendency of group members to do less than they are capable of as individuals. It directly challenges the logic that the productivity of the group as a whole should at least equal the sum of the productivity of each individual in that group.

Social loafing may be due to a belief that others in the group are not pulling their weight. If the individual sees others as lazy or inept, he/she re-establishes equity by reducing his/her own effort. Another explanation for social loafing is the dispersion of responsibility. Because the results of the group cannot be attributed to any single person, the relationship between an individual's input and the group's output is clouded. In such situations, individuals may be tempted to become free riders and coast on the group's efforts. In other words, there will be a reduction in efficiency when individuals think that their contribution cannot be measured.

The implications of the effect of social loafing on work groups for organisational behaviour are significant. Where managers utilise collective work to enhance morale and teamwork, they should also provide the means by which individual efforts can be identified. If this is not done, management should weigh the potential losses in productivity by using groups against any possible gains in individual worker satisfaction.

### 11.6.7 Composition

The composition of a group has consequences for collaboration, knowledge sharing, creative thinking, problem-solving and decision-making. Most group activities require a variety of skills and knowledge. *Heterogeneous groups* (those composed of dissimilar individuals) would be more likely to have diverse abilities and information, and should be more effective in situations that require different perspectives and inputs. For example, to cater for the unique health care needs of patients with rare diseases, a team of health care professionals, including general practitioners, physicians, nurses and therapists, need to intensively interact and collaborate to enhance knowledge sharing and innovative solutions. It is important that such a team is relatively stable over time to strengthen social ties and inter-group communication (Hannemann-Weber, 2011). Even virtual teams need to be carefully composed to ensure that members have diverse skills in line with the required task.

When a group is heterogeneous in terms of personalities, opinions, abilities, skills and perspectives, there is an increased probability that the group will possess the characteristics and creativity needed to complete its tasks effectively. The group might become more conflict-laden and less expedient as diverse positions are introduced and assimilated, but the conclusion is that heterogeneous groups perform more effectively than groups that are homogeneous.

*Group demography* is another matter to take into account. This is the degree to which members of a group share a common demographic attribute, such as age, gender, race, educational level or length of service in the organisation, and the impact of this attribute on turnover. This refers not to whether a person is male or female or has been employed by the organisation for a year rather than for ten years, but instead to the individual's attributes *in relation to the attributes of others* with whom he/she works.

Group demography has a certain logic that can be reviewed and considered as follows. Groups and organisations are composed of *cohorts*, which are made up of individuals who hold common attributes, for instance everyone is of the same age and shares common experiences. Group demography therefore suggests that attributes such as age, or the date that someone joins a specific work group or organisation, should help to predict turnover. According to Robbins and Judge (2009), the conclusion is that turnover will be greater amongst those with dissimilar experiences, because communication is more difficult. Conflict and power struggles are more likely, and are more severe when they occur. The increased conflict makes group membership less attractive, so employees are

more likely to leave. Similarly, the losers in a power struggle are more likely to leave voluntarily or be forced out.

In working groups where a large proportion of members enter at the same time, there is considerably higher turnover amongst those outside this cohort. Where there are large gaps between cohorts, turnover is also higher. Discontinuities or bulges in the group's date-of-entry distribution are likely to result in a higher rate of turnover within that group.

The composition of a group may therefore be an important predictor of turnover. Differences *per se* might not predict turnover, but large differences within a single group will lead to turnover. If everyone is moderately dissimilar from everyone else in a group, the feelings of being an outsider are reduced. It is the degree of dispersion on an attribute, rather than the level, that matters most. It can be speculated that variance within a group in respect of attributes other than date of entry, such as social background, sex differences and levels of education, might similarly create discontinuities or bulges in the distribution that will encourage some members to leave. To extend this idea further, the fact that a group member is a female might mean little in predicting turnover. In fact, if the work group is made up of nine women and one man, it is easier to predict that the lone male will leave. In the executive ranks of organisations, however, where females are in the minority, it could be predicted that this minority status would increase the likelihood that female managers would leave.

#### **11.6.8 Cultural diversity**

Another factor to consider in the composition of groups is cultural diversity. *Culture* is a system of values, beliefs, customs and habits that are carried over from generation to generation. These values, beliefs, customs and habits are reflected in language, technology, economics, politics, educational systems, religion, art and social relationships. When people go to work, they do not set aside their cultural values and lifestyle orientations.



**Figure 11.7** What benefits does this team derive from its diversity?

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*Different cultures* place different values on aspects such as group work, independence and authority. People from one culture may prefer to work in groups whilst those from another culture may prefer to work on their own.

These differences influence people's behaviour at work and the way they interact with others. Also, culture is not static but constantly develops and changes. Each new generation brings new values, beliefs and behaviours into a culture. Over time these assimilate with the existing culture.

*Diversity management* involves creating a climate in which all group members feel that they are valued and are making a valuable contribution to the group. Diversity management therefore aims at:

- firstly, establishing trust and constructive interpersonal relations amongst diverse people in the group
- secondly, increasing quality, productivity and efficiency.

Culture is complex, as is the impact of culture on behaviour in the workplace. This complexity is increased by individual uniqueness. Each person is unique, and very much aware of his/her uniqueness or "self", which is expressed in statements that use words such as "I", "me", "mine" and "myself". Children develop within cultural structures, and the development of the self is a product of cultural influences and personal uniqueness. The challenge to everybody is to recognise and appreciate cultural differences as well as individual differences,

whilst at the same time finding common ground.

## **Interpersonal competencies that can help managers achieve integration**

There are various interpersonal competencies that assist managers in integrating people from various cultures:

- *relationship skills* (Diversity management is about building relationships so that people can collaboratively achieve the goals of the organisation. Relationships are built through effective communication, acceptance and support.)
- *communication* (Managers need to speak up about the need to manage diversity and foster dialogue amongst employees. Communication can be made more effective by formulating clear messages, developing the credibility of the sender, communicating ethically, obtaining feedback, offering appropriate self-disclosure and developing effective listening habits (Schultz, 2003).)
- *perception* (In [Chapter 6](#), perceptual errors are discussed, such as the primacy effect, stereotypes and attribution bias, which could damage social relations. Managers need to perceive others realistically. This involves being aware of people's good and bad points, and focusing on the facts relevant to a specific situation.)
- *motivation* (Managers motivate employees by equipping them with the necessary skills to do a job, by providing opportunities to employees to use their skills, and by encouraging employees to use their skills optimally. People who perform well feel proud of themselves and feel respected by others.)
- *influence* (Managers need to use their influence to convince all employees to appreciate diversity and focus on the positive outcomes of diversity.)
- *interpersonal sensitivity* (Managers need to be able to perceive a situation from the perspective of another person. This is called "empathy". It helps the manager to anticipate how others might react to a specific situation.)
- *managing conflict* (Diversity implies that people behave and think

differently. This creates the potential for conflict. Managers need to differentiate between functional and dysfunctional conflict, and manage conflict constructively to favour the attainment of organisational goals.).

## 11.7 GROUP PROCESSES

*Group processes* is the term used to refer to *group phenomena* such as the communication patterns used by group members, group-decision processes, leader behaviour, power dynamics and conflict interactions.

Group processes can either enhance or hinder the performance of a group. For example, open communication supports creative thinking and problem-solving, whilst social loafing leads to less productive results.

*Synergy* is a term used in biology to refer to an action of two or more substances, resulting in an effect that differs from the individual summation of the substances. This concept is also used to understand group processes. Social loafing, for instance, represents negative synergy. The whole is less than the sum of its parts. In contrast, if the diverse skills of members are incorporated to produce a creative outcome, positive synergy is created. In this case, the group's process gains exceed its process losses.

### 11.7.1 Group dynamics

*Group dynamics* is the term used to describe the psychodynamic phenomena in groups. Group dynamics are studied from three perspectives:

- The *psychodynamic view* accepts that (mostly unconscious) anxiety acts as the driving force of group behaviour.
- The *object-relations view* accepts that the group reacts not only to the conscious role of a person or people, but also to what he/she represents in symbolic and objective terms. Thus, an unknown, newly appointed manager might be seen as an imposter because he/she represents uncertainty and the accompanying anxiety.
- The *systems view*, as discussed in section 11.2, accepts that an individual acts as a microsystem, a group as a mesosystem and an organisation as a macrosystem. The assumption is that these systems are in constant conscious and unconscious interaction and that they reflect one another's dynamic behaviour (Cilliers and Greyvenstein, 2012).

Group dynamics can be explained by means of hypotheses, typical behaviour tendencies and concepts. Firstly, three hypotheses can be formulated to explain group dynamics:

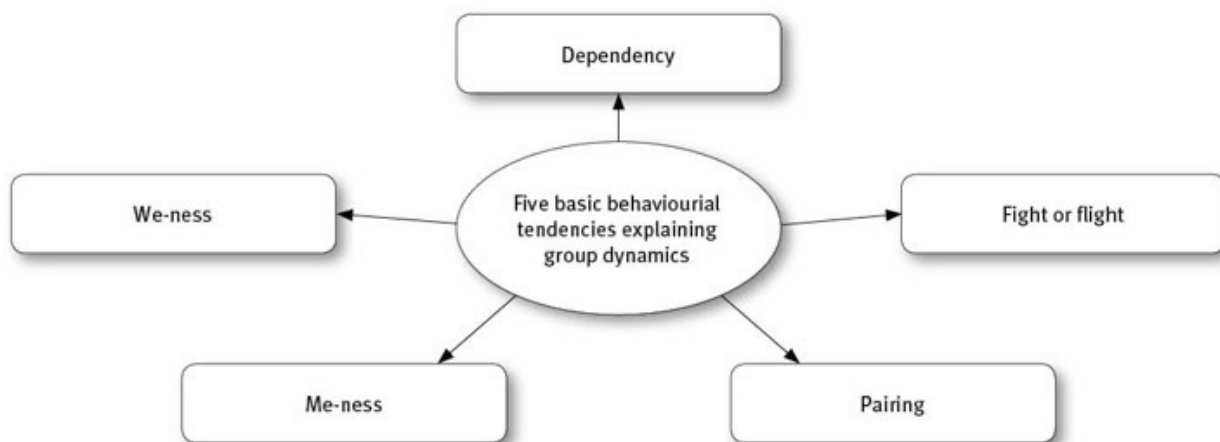
- Group members approach the work situation with unconscious and unfulfilled family needs which manifest in the work situation. An example is the situation in which unfulfilled needs for recognition or affection expected from parents are played out in the relationship with the manager, who represents male or female authority.
- Group members bring unconscious and unresolved conflict, such as with parental authority, into the group. Because the role of the manager excludes relating to the group member in the way a father or mother would, the group member experiences frustration.
- Group members unconsciously play out unfulfilled past needs for power over and competition with siblings and the parental figure. Because colleagues are not siblings or parents, the need does not fit the reality of the here-and-now situation of work. This may lead to confusion, anxiety, anger and aggression.

Secondly, as shown in Figure 11.8, there are five basic behaviour tendencies in groups that explain group dynamics:

- *Dependency* is when the group as a system experiences anxiety because the task demands are too challenging. To cope with this anxiety, the group expects the manager or management to take charge or even do the work. The group therefore becomes dependent on the authority figure. When the authority figure does not comply (because he/she is not supposed to), the group becomes angry and aggressive. As a result, a state of *counter-dependency* develops where the group says, "Then we will do it ourselves." Should the group keep working at its task whilst allowing the authority figure to facilitate the growth process, the group can move towards *interdependency*, using authority when needed in a constructive rather than dependent way.
- *Fight or flight* is when group members either rebel against the leader or withdraw from the situation. In the fighting response, the group could act aggressively towards the authority figure who does not take up the leadership role in the way the group wants him/her to do. Flight occurs when the group avoids getting involved in its task in a constructive way. Members might leave the group, procrastinate or talk about unimportant issues.
- *Pairing* is when group members pair with groups or members that they perceive as powerful in order to cope with the anxiety of alienation and loneliness. The unconscious need is to feel secure. But pairing also implies

splitting, which implies cognitive categorising. Typical examples of splits could be seeing management as both good and bad, dividing colleagues between black/white, male *female*, *senior*/*junior* and competent/incompetent. Unconsciously the group tries to split up the diverse workplace and build a smaller system, to which the individual can belong safely and securely.

- *Me-ness* is evident when individuals in the group resist becoming part of the group because belonging to a group would imply that the group has control over the individual and the individual loses his/her freedom. The group works on the tacit, unconscious assumption that the group is to be a non-group. The idea of being a group is perceived as all negative. The members act as if the group has no reality. The group exists in a culture of selfishness where the individual is only aware of his/her own personal boundaries. This leads to instrumental transactions with no room for affect (experienced as dangerous because one would not know where feelings might lead). This resistance of individuals to become part of a team might affect a team's performance negatively, and consultants need to facilitate the exploration of related feelings, processes and dynamics in order to achieve more cohesion.
- *We-ness* is the opposite of me-ness. This occurs when group members seek to join a powerful union with an omnipotent force, surrendering the self for passive participation, thus experiencing existence, well-being and wholeness. It is as if the individual group member gets lost within oceanic feelings of unity. This wish for "salvationist inclusion" can be seen in a team striving towards cohesion and synergy where it is believed that problems will be solved by this strong united force.



**Figure 11.8** Five basic behavioural tendencies that constitute group dynamics.

Thirdly, the following concepts are used in the study of psychodynamics and behaviour in groups:

- *Anxiety* is accepted as the basis of all group behaviour. The group unconsciously needs something or someone to contain the anxiety on its behalf and create a safe and secure workplace. This is done by means of *defence mechanisms*. The group could use projection to blame management for what goes wrong. For example, the group might expect the manager to contain its anxiety about losing jobs. The group might also rely on existing structures, such as laws, regulations, procedures, organograms and job descriptions to contain anxiety. Remarks such as “Shall we make a rule about ...?”, “Why don’t you put this on paper?” and “Let’s discuss this in future ...” reflect a need for structure. Projective identification takes place when feelings or other behaviours are projected onto another team member or subsystem, which then accepts and internalises the behaviour. An example would be a situation in which the group is unconsciously making the human resource manager carry the feelings – or so-called “soft issues” – on behalf of the group and then this person becomes a soft-spoken and caring team member. Rationalisation and intellectualisation are used to stay emotionally uninvolved and to feel safe and in control.
- *Valence* refers to an individual or a group’s predisposition to unconsciously take on a specific projection. For example, the manager may be inclined always to take the caring role because it might be expected of a manager to take care of the group, or an individual who is the firstborn in his /her family of origin might naturally take on the leadership role.
- *Boundaries* act as distinguishing lines between the individual and the group, as well as between the group and the organisation. The purpose of setting group boundaries is to contain anxiety, thus making the workplace controllable and pleasant. Teams use time, space and tasks to manage boundaries. *Time boundaries* (starting, going home, meetings) are used to structure the working day. The *space boundary* refers to the workplace itself, such as knowing exactly where to sit or stand whilst working, or having one’s own desk, cabinet, locker, office or building. It can be argued that having to work in an open-plan office creates anxiety because of the lack of clear space boundaries. The *task boundary*, such as the job description, job standard and organogram, refers to knowing what the work content entails.
- *Silos* represent both conscious structures such as departments or grade levels,

as well as an unconscious state of mind or mentality that separate people and groups from each other and influence team identity negatively. Cilliers and Greyvenstein (2012) use the term “*silo mentality*” to explain how people unconsciously, “in-their-minds” and based on fantasies and feelings, separate and differentiate themselves from others. Silos serve as both barriers and containers, which represent both “flight and flight” and “we and them” orientations.

- *Representation* occurs when a group member or the whole group crosses a boundary. Interpersonal communication is an example of crossing individual (microsystem) boundaries. The crossing of mesosystem boundaries happens in meetings between groups or departments. An example would be a situation in which the human resource department has a planning meeting about training with the production department. The crossing of macrosystem boundaries happens when a group member or whole group meets with an individual or group from another organisation. The issue of representation refers to the authority given to the person crossing the boundary on behalf of someone else, the group or the organisation. Unclear authority boundaries seem to immobilise and disempower representatives to another part of the system.
- *Authorisation* refers to the level of authority with which a group member is allowed to communicate, negotiate or sell across the boundary of the group. *Observing authority* implies being restricted in giving and sharing information about the group across the boundary. *Delegated authority* refers to more freedom in sharing, but with a clear boundary around the content thereof. *Plenipotentiary authority* gives the group member total freedom to cross the boundary, and to use his/her own responsibility in decision-making and conduct. Unclear levels of authority result in anxiety, which hinders rational decision-making and the process of reporting back to colleagues inside the group boundary.
- *Leadership* implies managing what is inside the boundary in relation to what is outside. For example, a group member assumes individual leadership when negotiating on his/her own behalf for a salary increase. Leadership of *followers* applies when an individual – not necessarily the designated leader or manager – acts or negotiates on behalf of others in the group. A boundary is created for this role within the group, and is experienced as very powerful by the member as well as the group.
- *A relationship* refers to any type of interaction in the group (such as face-to-

face, or telephonic) as it happens in the here-and-now. In contrast, on an unconscious level, the group is always in the mind of the group member, influencing behaviour as such – this is referred to as *relatedness* or “the organisation in the mind”.

- *Collectivism* refers to one part of the group acting, or carrying, emotional energy on behalf of another. For example, the production section (or blue-collar workers) might work under appalling and dirty conditions and thus “carry the filth” on behalf of the total group, whilst the office staff (or white-collar workers) might have good-looking and air-conditioned offices, thus “carrying the cleanliness and order” on behalf of the total group. Another explanation is to say that these two subgroups manage different group boundaries, each with its own rules and appearances. Collectivism also implies that no event happens in isolation and that there is no coincidence in the behaviour of any group.

### 11.7.2 Group tasks

When assigning group tasks, the size of the group must be considered. Large groups facilitate pooling of information and diverse perspectives to problem-solving, which results in a process gain (such as increased interaction, communication and diverse ideas). But when a group has to coordinate and implement a decision, a smaller group is more effective. The presence of additional members will lead to process loss (social loafing) rather than process gain.

It can be concluded that:

- The task requirements moderate the size-performance relationship.
- The task requirements also moderate the influence of group processes on the group’s performance and members’ satisfaction.
- The *complexity and interdependence* of tasks influence the group’s effectiveness.

Brown (2011) distinguishes between simple situations, complex situations and problem situations. In simple situations the task can be handled by one employee and participation is not required. Standardised procedures are mostly used. Team development in such a situation is unnecessary as members of a group work independently. Complex situations require more intense group work. Group members must share information, communicate, negotiate, pursue, listen and solve problems together. In this case team building is useful but not crucial. In

problem situations, atypical problems that are outside the scope of individual's influence need to be resolved. The uncertainty and need to include others require a team-building approach.

### 11.7.3 Group cohesion

*Group cohesion* refers to the degree to which members are attracted to one another and motivated to stay in the group. It is often implied that cohesive groups are more effective because members generally agree and cooperate with each other. Cohesion manifests in different forms: individual attractions to the task aspect of the group, individual attractions to the social aspect of the group, the extent to which the group as a whole is integrated in terms of the task and the extent to which the group is integrated on a social level (Akpınar, Kirazcı and Aşçı, 2011). Children as young as nine years old understand the concept of cohesion and can identify indicators of high and low team cohesion (Martin, Carron, Eys and Loughhead, 2011).

Cohesiveness is influenced by the following factors:

- *time spent together* (Group members who spend a long and productive time together will increase their cohesiveness and synergy, as attitudes, knowledge, interest, attraction and general responsiveness will improve amongst them. The opportunity to spend time together is dependent on members' physical proximity. People who live on the same block or work in the same office are more likely to become a cohesive group, because the physical distance between them is minimal.)
- *severity of initiation into the group* (The more difficult it is to get into a group, the more cohesive that group becomes. Initiation rites are meant to screen out those who do not want to commit and to intensify the desire of those who do want to become active in the group.)
- *group size* (The bigger the group, the more difficult interaction with all members becomes. As the group's size increases, the likelihood of cliques and subgroups also increases, thus decreasing overall cohesiveness.)
- *gender* (Research on gender and cohesion gave varying results. It is said that women report greater cohesion than men, are less competitive and more cooperative, and therefore bond easier with colleagues and teammates. However, Akpınar, Kirazcı and Aşçı (2011) found no significant differences in the cohesion reported by males and females who participated in either aerobic-like or martial art exercises. They found that both males and females participating in martial art exercises reported more cohesion than those who

- participated in aerobic-like classes.)
- *external threats* (Cohesiveness can increase if the group comes under attack from external sources. This is illustrated by support for group members against management in cases of dismissals or downsizing in organisations. This type of support against an outside threat does not occur under all conditions, especially if members perceive that the group might disband or if personal security could be at stake.)
  - *previous successes* (If a group has a history of successes, it builds an *esprit de corps* that attracts and unites members. Successful firms find it easier to attract and hire new employees than unsuccessful ones do. The same holds true for successful research teams, well-known and prestigious organisations and winning sports teams.)
  - *group identity* (As indicated above, Akpınar, Kirazcı and Aşçı (2011), in their study on cohesion in exercise groups, found higher levels of cohesion amongst people who participated in martial arts exercises than those participating in aerobic-like exercises. The higher levels of cohesion in martial arts exercises might have resulted from a high respect for the exercise leader, structured one-on-one interaction, opportunities for socialising and wearing a uniform outfit, factors which contribute to group identity.).

Cohesiveness affects group productivity. Highly cohesive groups are more effective than those with less cohesiveness, but the relationship is more complex than merely allowing one to say high cohesiveness is good. High cohesiveness is both a cause and an outcome of high productivity.

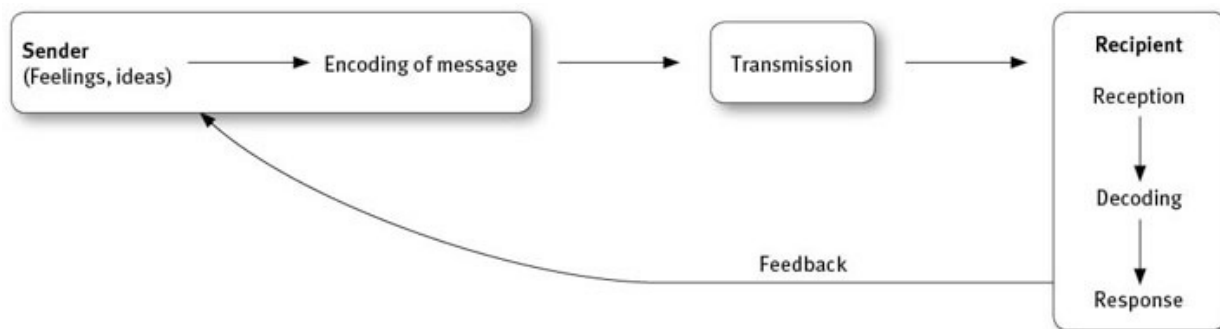
Camaraderie reduces tension and provides a supportive environment for the successful attainment of group goals. As already noted, the successful attainment of group goals, and the members' feelings of having been part of a successful unit, can serve to enhance the commitment of members.

Strong cohesion can also have a negative impact on team performance when members feel too loyal to the group to divert from group opinion. Cohesion is therefore one of the causes of groupthink, which is the tendency of a group to think along similar lines without censoring ideas.

The relationship between cohesiveness and productivity is moderated by performance-related norms. If a closely-knit group of employees decide to lower performance levels and utilise all their sick-leave allowances, irrespective of not being sick, they might become even closer to combat any criticism from other groups or management (an external threat). In this case, cohesion does not lead to higher performance due to negative performance-related norms.

#### 11.7.4 Group communication

*Communication* is an essential group process. The purpose of communication is to establish relationships, share information and coordinate efforts. This process is illustrated in Figure 11.9. The sender starts the communication process by encoding an idea in a form that is perceived to be understood by the receiver. However, the encoding of the message is influenced by the sender's feelings, expectations and unique frame of reference, as well as the sender's ability to use language and communicate clearly.



**Figure 11.9** The communication process.

Once encoded, the message is transmitted through a medium. The best medium is face-to-face communication. The second best medium is telephone (if reception is good) and videoconferencing. However, the more people involved in these types of communication, the less effective these media become. The least valuable forms for creating understanding are email and texting (Pentland, 2012). This is because these media do not cater for immediate two-way communication, observation of facial expression and voice tone. It is therefore important to match the content of a message with a suitable medium.

Two specific problems with the transmission of information include filtering and distortion:

- *Filtering* occurs when parts of the original message are left out when the message is transmitted from the sender to a second and third person or more people.
- *Distortion* occurs when the message is changed by the sender based on the sender's understanding of the original message or alternatively, when the sender purposefully changes the message to suit his/her own agenda.

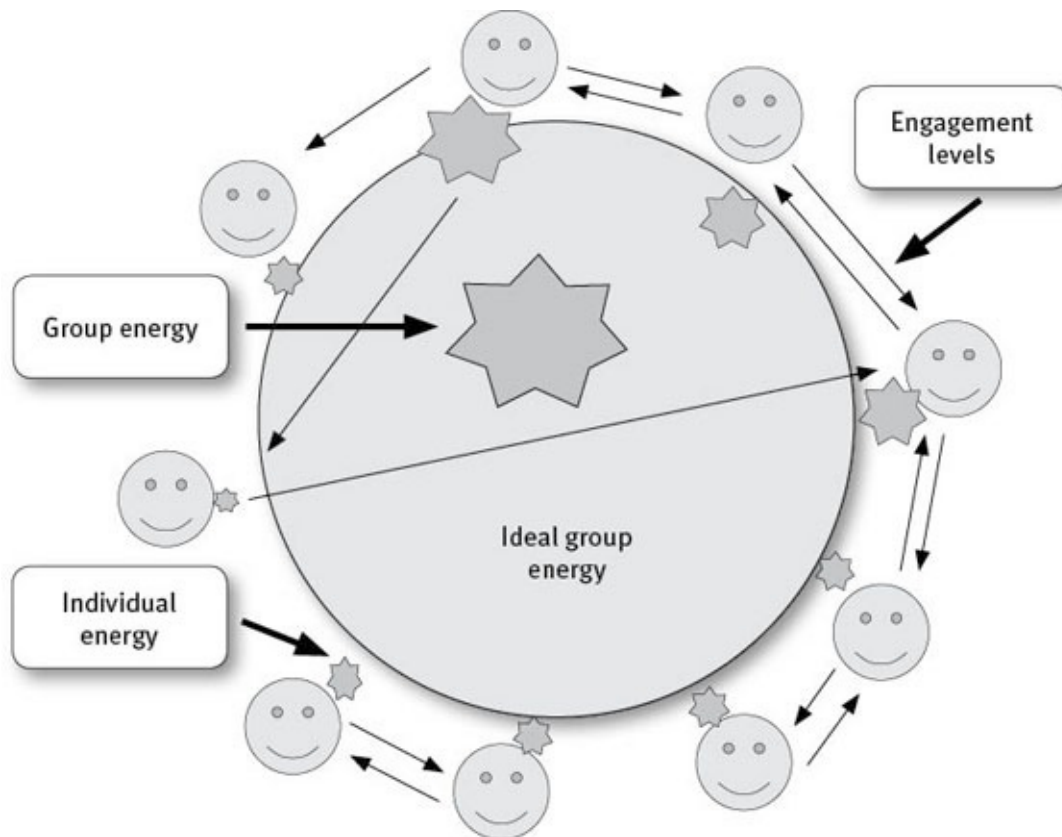
Filtering and distortion also appear to increase as the size of a group or organisation increases, due to more elaborate communication chains, lack of overall participation and /or dominance by a few members.

An important step in the communication process is the reception of the message. Misunderstanding can occur owing to physical barriers, information overload, or the psychological state of the receiver. The receiver can also decode, or interpret, the message differently to what the sender intended.

The next step in the process is how the receiver behaves in response to the message. The failure to respond as intended might or might not represent a communication problem. Lack of ability, knowledge and/or motivation could be the causes.

The final step is feedback, which is critical to improving communications and avoiding breakdowns. Feedback provides information on the consequences of the message to the sender. This could be acknowledgement by the receiver that the message has been interpreted correctly, or evidence that the receiver has behaved as requested. To ensure effective feedback in the communication process, the receiver should feel free to ask questions and give comments. Without feedback a sender can never be sure if the message has been received and interpreted correctly.

An interesting study revealed the importance of communication in teams, the communication characteristics that make teams successful and the communication profile of ideal team players. Pentland (2012) and a team of researchers used wireless and sensor technology to study communication patterns in teams. Participants from teams with a history of varying performance outcomes had to wear electronic badges which could generate up to a 100 communication data points a minute. Individual communication behaviours such as tone of voice, body language, who the person talked to and the quantity of communication, as well as levels of extroversion and empathy were measured and recorded. This *sociometric data* was then displayed as *sociograms* on *electronic dashboards*. An example of a sociogram is presented in Figure 11.10.



**Figure 11.10** A type of sociogram illustrating energy levels and engagement in a group.  
Source: Adapted from Brown (2011) and Pentland (2012)

The results showed that it was not so much the content, but the manner in which team members communicated, that predicted performance. The results showed that the following communication characteristics are evident in high performing teams:

- Everyone on the team talks and listens in roughly equal measure, keeping contributions short and sweet.
- Members face one another, and their conversations and gestures are energetic.
- Members connect directly with one another – not just with the team leader.
- Members carry on back-channel or side conversations within the team.
- Members periodically break, go exploring outside the team, and bring information back.

Three aspects of communication were specifically evident in high performing teams: energy, engagement (defined as the distribution of energy within the team) and exploration (communication outside team boundaries).

The results also showed that ideal team players are “natural leaders” or “charismatic connectors” who actively engage people in high energy conversations, communicate equally with everybody and ensure that all members get an opportunity to contribute. These “connectors” are not necessarily extrovert but feel comfortable engaging with others and are good listeners. They actively link team members with each other and disseminate ideas. They also connect their teammates with one another and spread ideas around. They seek ideas from outside the group without compromising group engagement. The more connectors a team have, the more successful they are.

### 11.7.5 Influence, power and organisational politics

Power and influence are two behavioural manoeuvres used in groups to direct the behaviour of group members, get views accepted, obtain information or dominate others. The power that individuals possess in a group can shape the nature of communications. *Influence* is the ability to actually change the perceptions, attitudes or behaviour of another person. The amount of influence that is achieved depends on social power, which is the ability to influence others.

Perrewé, Ferris, Stoner and Brouer (2007) refer to political skill as the ability to effectively understand others at work and to utilise political knowledge to influence others and to enhance personal and organisational goals. Their opinion of organisational politics is therefore more positive in nature. Political skill consists of four dimensions, that is, social astuteness (accurately understanding social situations), interpersonal influence, networking ability (such as developing connections) and apparent sincerity (being honest, having no hidden motives).

Van Vuuren (2004) argues that problems with communication and relationships in organisations often manifest themselves in office politics, which is the “use and misuse of power and influence”, commonly also known as “the games people play at work”. According to Van Vuuren, business is about negotiation (influence tactics) to get what you want. He perceives influence as essential for people who want to promote themselves, and does not necessarily perceive it as negative.

#### **ETHICAL READER: Office politics – is influence positive or negative?**

Van Vuuren (2004) argues that whether influence is positive or negative depends on how and why influence is used. Influence used

to promote oneself and one's career is acceptable, but when influence is used at the expense of other people, ethical questions can be raised. Influence used in a positive manner is not about manipulation or coercion, but about listening, understanding people, getting the decision-makers on one's side, selectively sharing information and being an agreeable person. Van Vuuren suggests that one should not join the gossipers and "negaholics", as their behaviour reflects a lack of influence and decision-making capacity.

With regard to the positive role that politics can play in organisations, and with regard to leadership influence utilising organisational politics, Perrewé, Ferris, Stoner and Brouer (2007) refer to political skill as the ability to effectively understand others at work, and to utilise political knowledge to influence others and to enhance personal and organisational goals.

#### 11.7.6 Conflict and cooperation

Conflict in a group occurs when group members have different goals, or when they disagree on how to achieve goals. Whilst diversity in a group can stimulate creative ideas, it can also lead to conflict. Conflict can be destructive in a group if not managed correctly.

*Conflict* can emerge because of the organisational context, task interdependence, goal and reward structure, competition for scarce resources, and communication obstacles. Perhaps the most fundamental factor in causing conflict is the extent to which the successful performance of one person or unit depends on the performance of another. When people depend on one another, breakdowns in cooperation can easily escalate into conflict, but when task interdependence is low, conflict is much less likely.

Whether conflict occurs in a group or organisation depends to a large extent on the formal goals defining task achievement and the rewards given to people for their performances:

- A *cooperative goal structure* positively links the goals of group members, so that one person's goal achievements are beneficial to the achievement of other members' goals. In an individualistic goal structure, there is no correlation.
- In a *competitive goal structure*, individual members cannot attain their goals unless other members fail in theirs.

As in goal structures, people can be rewarded individually for their collective

efforts (cooperative rewards), their individual performance (individualistic rewards), or on a winner-takes-all basis if such outcomes have been negotiated or agreed on (competitive rewards).

*Competition* is not the best approach if the parties involved have to cooperate to complete the job. Competitive reward systems can have harmful effects on the performance of a group's tasks. Research has supported the argument that better results are obtained from cooperative reward systems than reward systems that encourage competition. Imposing cooperative goal structures is also more effective than imposing individualistic goal structures. In a situation in which cooperation is important to performance, competitive or individualistic bases can encourage competition that detracts from effective performance.

In contrast, if the task does not require cooperation, competitive and individualistic rewards might serve as a boost to performance.

Another source of conflict is communication. Misunderstandings occur owing to an inability to communicate or access communication channels, as well as from communication barriers, poor listening skills, and language and cultural differences.

### 11.7.7 Trust and ethics

*Trust* has gained importance in organisations due to an increase in collaborative relationships across internal and external organisational boundaries, driven by the use of information technology. Consider the importance of trust in a *virtual team*, where members are physically dispersed and direct contact is seldom possible. In a flatter organisational structure the emphasis is on self-management, teamwork and cross-functional partnerships, which is based on trust. Gone are the days when managers mostly used closed supervision and direct control to ensure that employees performed well.

Trust has been defined as the willingness of a party (*the trustor*) to be vulnerable to the actions of another party (*the trustee*) based on the expectation that the trustee will act in a manner that is predictable (Sarker, Ahuja, Sarker and Kirkeby, 2011). According to these authors' research communication and trust are inherently characteristics of a relationship and not properties of individuals.

Two kinds of interpersonal trust emerge in a team (Barczak, Lassk and Mulki, 2010):

- *affective trust* involves the confidence that a person puts in a team member based on shared feelings of caring and concern
- *cognitive trust* is the willingness to rely on a team member's expertise and

conscientiousness.

When team members have different goals and perspectives, more misunderstandings will occur and trust will be lower. Trust is an important factor in the open debate of issues, and is therefore an essential factor in group creativity. The following five factors contribute to the establishment of trust in relationships:

- *integrity* (characterised by honesty and truthfulness)
- *competence* (technical and interpersonal knowledge and skills)
- *consistency* (reliability, predictability and good judgement in handling situations)
- *loyalty* (in the sense of having the willingness to protect and save face for a person)
- *openness* (characterised by a willingness to share ideas and information freely).

Ethics is the study of moral values and behaviour. Unethical behaviour can affect the individual, work team and organisation (Nelson and Quick, 2006). Ethics contributes to an organisation's reputation. Organisations with a good reputation attract a better-quality employee and instil trust in customers. Ethics is especially important during the decision-making process. To be able to make ethical decisions, individuals need three qualities:

- the ability to identify an ethical issue and the consequences of alternative decisions
- the confidence to seek out different opinions about the matter in terms of what is right in a particular situation
- the willingness to make a decision when there is no clear answer to an ethical issue and complete information is impossible.

In addition, it was found that individual differences in values, loci of control, cognitive moral development and Machiavellianism influence ethical behaviour (Nelson and Quick, 2006). Specifically, people with strong personal values, an internal locus of control, a high level of moral development and a low level of Machiavellianism tend to be more ethical than others. ("Low-Mach" is the term that refers to people with a low level of Machiavellianism, who are sensitive to the needs of others and do not exploit them.)

## 11.8 GROUP DECISION-MAKING

Many organisational decisions are made by groups, teams or committees because of their collective resources. This does not imply that group decisions are necessarily preferable to those made by an individual. A number of factors may play a role in this issue, and it is helpful to study the advantages and disadvantages that group decisions hold. These advantages and disadvantages are shown in Table 11.2.

**Table 11.2** Advantages and disadvantages of group decision-making

Advantages of groups over individuals	Disadvantages of groups over individuals
Pooling of resources (By pooling the resources of several individuals, more input is brought into the process.)	Time-consuming (Groups take longer to make decisions and might not be able to act quickly and decisively when necessary.)
Heterogeneity or diversity (Groups do not only provide more input, but a variety of alternatives.)	Pressures to conform (Social pressures in groups, and the desire by group members to be accepted and considered as assets to the group, can result in conformity, and possibly poor decisions.)
Increased acceptance of solutions (Group members feel part of decisions and support these decisions, the resulting actions and the consequences.)	Domination by the few (Group discussion can be dominated by one or a few members. If these members have low and medium ability, the group's overall effectiveness will suffer.)
Increased legitimacy (Group decision-making is perceived as more democratic and therefore more legitimate. In contrast, individual decision-making might be viewed as autocratic and non-consultative.)	Ambiguous responsibility (With an individual decision, it is clear who is responsible and accountable, while in group decisions the responsibility is often undecided or obscured.)

The *effectiveness* of group decision-making, as opposed to individual decision-making, depends on the criteria used for defining effectiveness. Groups are more effective because they are more accurate, creative and enjoy more acceptance than individuals. Groups are an excellent vehicle for good management and decision-making processes if the problems of time, internal conflicts and group conformity can be managed.

However, individuals work faster. This criterion indicates that individuals are more *efficient*, because they use less time and are possibly also less costly.

Many phenomena can enhance or hinder effectiveness and efficiency in the making of decisions in groups. Various group decision-making techniques can be used to ensure optimum efficacy in reaching organisational goals.

### 11.8.1 Group decision-making techniques

The most common form of group decision-making takes place in face-to-face

interacting groups. However, interacting groups often censor themselves and pressurise individual members towards conformity of opinion. The following ways have been proposed to reduce many of the problems inherent in the traditional interacting group: brainstorming, the nominal group technique, the Delphi technique, SWOT analysis and electronic meetings. Brainstorming is a process for generating ideas. The other four techniques go further by offering methods of actually arriving at a preferred solution.

#### **11.8.1.1 Brainstorming**

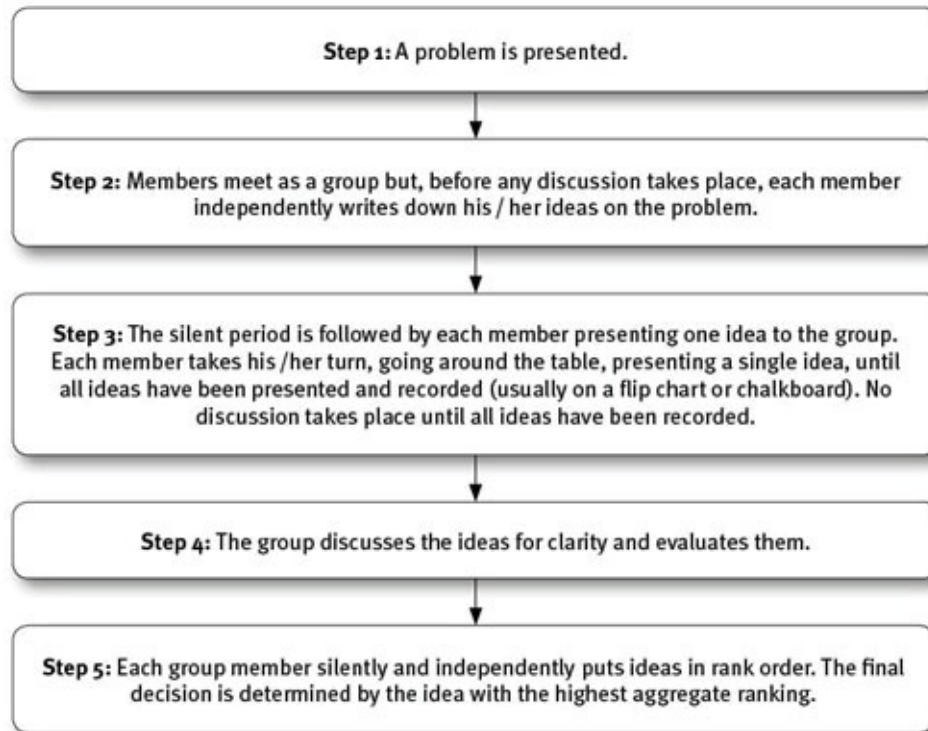
*Brainstorming* is an idea-generation process that specifically encourages any and all alternatives, whilst withholding any criticism of those alternatives. It is meant to prevent conformity and to stimulate the development of creative alternatives.

In a typical brainstorming session, 6–12 people sit around a table. The group leader states the problem in a manner that is understood by all participants. Members then freely offer whatever ideas or solutions occur to them in a given length of time. No criticism is allowed, and all the alternatives are recorded for later discussion and analysis. The fact that one idea stimulates others, and that judgement of even the most bizarre suggestions is withheld until later, encourages group members to think the unusual.

#### **11.8.1.2 The nominal group technique**

The *nominal group technique* restricts discussion during the decision-making process, hence the term “nominal”. Group members are all physically present, as in common meetings, but members operate independently. More specifically, a problem is presented and then particular steps follow, as shown in Figure 11.11.

The chief advantage of the nominal group technique is that it permits the group to meet formally, but does not restrict independent thinking.



**Figure 11.11** Steps in the nominal group technique.

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### 11.8.1.3 The Delphi technique

A more complex and time-consuming alternative is the *Delphi technique*. It is similar to the nominal group technique, except that it does not require the physical presence of the group's members. In fact, the Delphi technique never allows the group's members to meet face to face. The following steps characterise the Delphi technique:

- The problem is identified and members are asked to provide potential solutions through a series of carefully designed questionnaires.
- Each member anonymously and independently completes the first questionnaire.
- Results of the first questionnaire are compiled at a central location, transcribed and reproduced.
- Each member receives a copy of the results.
- After viewing the results, members are again asked for their solutions. The results typically trigger new solutions or cause changes in the original position.

The last two steps are repeated as often as necessary for consensus to be reached.

Like the nominal group technique, the Delphi technique insulates group members from the undue influence of others. The Delphi technique can also be used for decision-making amongst geographically scattered groups, because it does not require the physical presence of the participants.

#### **11.8.1.4 The SWOT analysis**

*SWOT* is an acronym for “*strength, weakness, opportunity and threat*”. The first two dimensions are internal to the organisation and the last two are external. The analysis of these dimensions is used for strategy-evaluation purposes. The idea is not to list specific strengths, weaknesses, opportunities and threats but rather to ask questions about the existence of them and then to formulate strategies related to them. The following are examples of questions about the four dimensions:

- strengths (Is there distinctive competence? Are there adequate financial resources? Are there competitive skills? Is the company well thought of by consumers? Are there cost advantages? Is management competent?)
- weaknesses (Are facilities obsolete? Is there a lack of management depth and talent? What key skills or competencies are missing? Is the market image weak? What competitive disadvantages are there?)
- opportunities (Can additional customer groups be served? Can new markets or segments be entered? Can the product line be expanded? Can faster market growth be attained? Can complementary products be added?)
- threats (Is it likely that new competitors will enter? Is slower market growth possible? Are there growing competitive pressures or adverse demographic changes?).

The SWOT analysis is more than just a set of four lists, therefore the listing must be evaluated in terms of what the implications are for strategy and what adjustments in strategy need to be explored.

#### **11.8.1.5 Electronic meetings**

A more recent approach to group decision-making blends the nominal group technique with sophisticated computer technology. It is called the *electronic meeting*. Once the technology is in place, the concept is simple. Up to 50 people sit around a horseshoe-shaped table – empty, except for a series of computer terminals. Issues are presented to participants and they type their responses onto their computer screen. Individual comments, as well as aggregate votes, are

displayed on a projection screen in the room.

The major advantages of electronic meetings are anonymity, honesty and speed. Participants can anonymously type any message they want to and it flashes on the screen for all to see. It also allows people to be brutally honest without penalty. It is fast, because “chitchat” is eliminated, discussions do not digress and many participants can “talk” at once without stepping on one another’s toes.

Experts claim that electronic meetings are as much as 55% faster than traditional face-to-face meetings. Yet there are drawbacks to this technique. For example:

- Those who can type fast can outshine those who are verbally eloquent but have poor typing skills.
- Those with the best ideas do not get credit for them.
- The process lacks the richness of information given in face-to-face oral communication. Although this technology is currently in its infancy, the future of group decision-making will likely include extensive use of electronic meetings.

The following are three other techniques to facilitate group decision-making and creativity:

- *focus groups* (Focus groups are used a lot in business, especially in marketing. They consist of selected people who give feedback and discuss goods, services and ideas.)
- *the devil’s-advocate technique* (In this technique two groups present their ideas on a selected issue and exchange or present their recommendations to the other group. Each group criticises the other group’s ideas, after which they both revise their initial ideas. This process of presentation and criticism is followed until final solutions are reached.)
- *the expert-systems technique* (The use of this technique in organisations means that management uses whatever technology or human resources it has to increase innovation and change. In this technique computer technology is of great help, but management also has to have employees who are leaders, idea generators and good project managers.).

The choice of one technique over another will depend on what criteria one wants to emphasise. The interacting group is good for building group cohesiveness. Brainstorming keeps social pressures to a minimum. The Delphi technique minimises interpersonal conflict. Electronic meetings process ideas fast. The

criteria used to evaluate the group will help in the choice of the best technique.

### **11.8.2 Groupthink and group-shift**

Two by-products of group decision-making that have the potential to affect a group's ability to appraise alternatives objectively, and to arrive at quality decision solutions, are groupthink and group-shift.

#### **11.8.2.1 Groupthink**

*Groupthink* relates to norms. It describes situations in which group pressures force conformity, which deters the group from critically appraising unusual, minority or unpopular views. The following are signs of groupthink:

- Group members rationalise any resistance to the assumptions they have made.
- Members apply direct pressure on those who momentarily express doubts about any of the group's shared views, or who question the validity of arguments supporting the alternative favoured by the majority.
- Those members who have doubts or different views from the group keep quiet or minimise their doubts.
- There appears to be an illusion of unanimity. If someone does not speak, a "yes" vote is assumed.
- Groups act as if they are invulnerable, ignoring other influences or danger signals.

Three variables moderate a group's vulnerability to groupthink: the group's cohesiveness, the leader's behaviour, and insulation from outsiders.

#### **11.8.2.2 Group-shift**

*Group-shift* is a special case of groupthink. Group-shift indicates that in discussing a given set of alternatives and arriving at a solution, group members tend to exaggerate the initial positions they hold or shift the issue, sometimes in a conservative manner. However, the evidence indicates that members and groups tend towards a *risky shift*. What appears to happen in groups is that the discussion leads to a significant shift by members towards a more extreme expression of the position to which they were already leaning before the discussion. Thus, conservative types become more cautious and the more aggressive types take riskier positions. The group discussion tends to exaggerate the initial position of the group.

The greater occurrence of the shift towards risk has generated several

explanations for the phenomenon. It has been argued that the discussion creates familiarity amongst members, and as they become more comfortable with one another they also become more bold and daring. Another argument is that society values risk and admires individuals who are willing to take risks, and group discussion motivates members to show they are at least as willing as their peers to take risks. The most plausible explanation of the shift towards risk, however, seems to be that the group diffuses responsibility amongst individual members.

## **11.9 THE FACILITATION OF SOCIAL LEARNING IN GROUPS**

*Facilitating* as a concept, activity and role is becoming more well known and used in human-resource practices. Facilitating, as used in industry, originates from client-centred psychotherapy (Rogers, 1973), as well as from theories on helping and helping skills (Egan, 1975; Carkhuff, 2000). Carkhuff's research (2000) emphasises the importance of understanding what facilitation is, as well as the skills required for effective facilitation. Effective facilitation leads to learning and growth in the people being facilitated, whilst ineffective facilitation can cause emotional pain and inhibit development.

### **11.9.1 A description of facilitating**

In human resource activities, *facilitating* refers to establishing a process of learning and growth in the group. More specifically, facilitating is about creating a climate and providing opportunities for the group to learn how to learn about and experience the self, with the goal of enhancing quality of life, as manifested in psychological optimal functioning. This implies that the group will experience growth and become more fully functioning, characterised by the taking of responsibility for the self in decision-making, in experiencing emotions, and in actions (Rogers, 1983a).

In more popular terms this means that instead of giving the group a fish to eat every day (as in the traditional way of teaching, training and instructing), the facilitator will teach the group how to catch fish, so that the group will be able to help itself in future problem-solving and need satisfaction.

Facilitation is therefore not traditional classroom teaching or a meeting where a chairperson takes charge within the structure of an agenda, or an autocratic intervention. Instead, it is a process where the facilitator guides the group to

explore its own group structure and group processes, and stimulates the group to effectively solve problems and make decisions in order to attain its goals.

Facilitating as an activity entails the following:

- Firstly, attending (looking and listening) to the other person's behaviour in terms of mechanics and dynamics, content and process, intellect (concept) and feeling (experience), left-and right-brain activities, and verbal and non-verbal behaviour. This leads to the second person becoming involved in his/her own problem, because someone is caring and listening.
- Secondly, in the next activity, the facilitator responds to the information by paraphrasing, summarising and reflecting back to the speaker, which helps him/her explore him-/herself and the problem. The two activities can continue for a long while, until the second person reaches the point of understanding (the "aha-experience"), which means the facilitator has helped him/her to personalise (own and take responsibility for) the problem.
- Thirdly, as a final step, the facilitator initiates action, for example by asking, "What do you think will be the solution for your problem?" This is then discussed in terms of the taking of responsible action.

### **Describing facilitation**

Facilitating is a necessary skill for every group leader. Too often, group leaders are too active, thus forcing group members into comfortable, inactive roles. In this regard, Rogers (1983a) quotes the Chinese philosopher Lao-Tse, who 2 500 years ago said: "A leader is best when people barely know he exists, not so good when people obey and acclaim him, worst when they despise him. But of a good leader who talks little when his work is done, his aim fulfilled, they will all say 'we did it ourselves'."

## **11.9.2 The facilitator**

The *facilitator*, as a change agent, is the most important variable in the achievement of effectiveness. The personality profile of the facilitator would ideally have certain intrapersonal characteristics and interpersonal skills, and would serve as an effective model.

### **11.9.2.1 Intrapersonal characteristics of an ideal facilitator**

The ideal facilitator possesses a high level of physical fitness, which stimulates stamina to handle stress optimally. Psychological optimal behaviour can be described as the basis for the personality profile of the facilitator. The intellectual level is characterised by objective and realistic thinking, understanding the contents of the group's task, having the technical know-how to work on the task at hand, understanding the technicalities of the task, the skills to distinguish between effective and less-effective decisions, and the ability to make sound judgements. At the feeling level the facilitator's profile is characterised by sensitivity towards his/her own feelings and the acceptance of responsibility for them, a realistic self-image, self-respect and self-acceptance. On the motivational level the facilitator has an internal locus of control and strives towards growth to increase personality integration.

#### **11.9.2.2 Interpersonal skills of an ideal facilitator**

The facilitator functions at high levels of realness, respect and empathy – the core dimensions of growth-stimulating communication (Rogers, 1973). This is supported by the microskills of listening to, looking at and integrating the group's behaviour. This includes giving feedback to the group on group dynamics, meaning, communication, leadership, roles, status, norms and conflict. Feedback involves summarising, paraphrasing and reflecting on the group's behaviour to the group.

#### **11.9.2.3 Modelling by an ideal facilitator**

The ideal facilitator is a model for optimal functioning and demonstrates the ideal behaviour required from group members.

#### **ETHICAL READER: The ethics of facilitation**

It is important that facilitation is always done in an ethical way. This will be determined by:

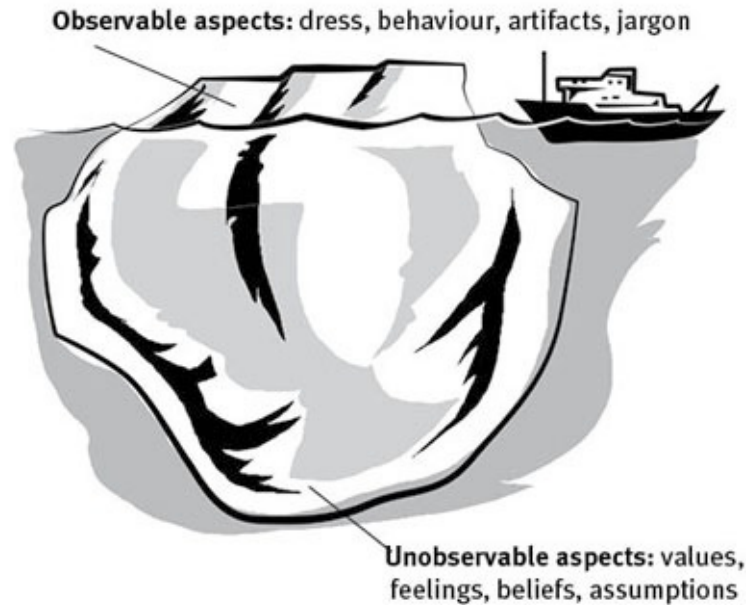
- the facilitator's assessment of his/her own competence and personal development
- objectivity towards the client
- always keeping confidential the information with which the group dealt.

## 11.10 THE ORGANISATION AS A SOCIAL SYSTEM

The organisation, which is also a group, can be considered an open social system, a system which consists of interacting and interdependent groups and individuals and their attributes. This system develops its own unique identity and characteristics, referred to as the organisational culture. Organisations are social entities that are mostly defined by the people who belong to them, and by their attributes, behaviour and interactions. Social processes in the organisation, such as communication, decision-making and conflict resolution, are affected by the structure of the organisation. Just as a society develops a culture, or preferred ways of doing things, over time an organisation also develops its own unique culture, which distinguishes it from other organisations. A bank, for example, has a different culture from that of a fast-food outlet. Different banks also have different cultures: one bank might endorse values of customer satisfaction, a helpful service and a friendly atmosphere, whilst another bank might endorse tradition, rules and formality. An organisational culture is an interdependent set of beliefs, values, behavioural tendencies and tools that become so common to an organisation that they maintain themselves over long periods of time. Subtle social forces – of which employees and managers are generally unaware, but which teach them to follow the group's norms and values or else be ostracised – ensure the continuity of these norms and values. The organisational culture influences the way employees and managers approach problems, serve customers, react to competition and execute tasks (Brown, 2011). Organisational culture includes both observable and unobservable characteristics of an organisation:

- *Observable characteristics* include aspects such as dress code, myths, jargon and distinct behaviour patterns.
- *Unobservable characteristics* include shared values, norms, beliefs and assumptions of the organisation's members.

Organisational culture can be illustrated by means of an iceberg (as shown in Figure 11.12). What you see is only the physical manifestation of culture. Most of the aspects that constitute organisational culture are not easily observed.



**Figure 11.12** Organisational culture: observable and unobservable aspects.

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Organisational culture is important as it influences employees' behaviour towards goal attainment. Organisational culture is an invisible guide for employees in terms of which behaviours are acceptable and will be rewarded, and which behaviours are unacceptable and will be punished. It also guides employees when they have to make decisions or solve problems.

### 11.10.1 How organisational culture is formed

The development of the organisational culture is influenced by the organisation's initial owners or founders, its management and the organisation itself:

- The *founder* of an organisation brings a specific kind of thinking or philosophy into the organisation. If the founder is very traditional, systematic, perfectionist and controlling, the organisational culture will reflect a rigid hierarchy with many rules, procedures and checks. If the founder is an entrepreneur who strongly believes in freedom, creativity and innovation, the organisational culture will reflect an informal atmosphere in which diversity, experimentation and different opinions are encouraged.
- The *management* of an organisation influences the organisational culture through its actions and words (Brown, 2011). Senior management formulates and articulates an organisational vision and organisational values, which influence the behaviour and feelings of the organisation's members, provided

- of course that the managers themselves act according to the vision and values.
- The *nature* of the organisation itself also influences the development of the organisational culture. For example, an organisation that manufactures hi-tech computer chips that become obsolete in less than a year is likely to have a different culture from that of an organisation that manufactures office furniture.

Employees respond to the organisational culture by acting in the prerequisite manner. If the corporate culture requires employees to seek approval before they make decisions, to follow rules and to uphold traditional ceremonies, employees are likely to do these things or they might lose their jobs. By acting as required, employees unknowingly reinforce the current organisational culture.

### 11.10.2 Adaptive organisational cultures

Business leaders should spend more time creating an adaptive culture in their organisations. An adaptive culture enables an organisation to adapt to environmental changes and stay competitive through the continuous pursuit of excellence. Ngela (2005) calls an *adaptive culture* a “smart” culture, and indicates that it is built on seven pillars:

- *core values* (A core-value framework indicates the values that the organisation endorses. These values are reinforced by human resource practices such as the performance-appraisal and reward system. If customer satisfaction, for example, is a core value, employees are evaluated on how well they serve customers and are then rewarded if they do well.)
- *talent mapping* (Talent mapping requires organisations to recruit, discover, develop and appreciate talent within themselves. The most talented people are those who think and work according to the company’s core values and purpose.)
- *talent retention* (Retention of talent ensures the sustainability of the organisation. A smart culture ensures that good employees remain in the company and enjoy their stay. This is achieved through appropriate compensation, opportunities for growth, rewards, and autonomy with empowerment.)
- *performance-centred leadership* (This ensures a balance between the human and technical sides of the organisation by aligning individual objectives with strategic organisational goals. Smart cultures create forums in which organisational members can share information and ideas, challenge existing

practices, grow as individuals and build constructive relationships through participation. The involvement of top management demonstrates the strategic importance of these forums.)

- *intellectual dialogue* (Members freely share experiences and ideas to stimulate others to think and act creatively.)
- *participative management practices* (These show an appreciation for the abilities of individuals and are also effective ways of gathering and incorporating diverse cultures. People who are treated as being smart respond smartly.)
- *communication* (Communication is the glue that keeps a smart culture together. Communication makes people feel respected, appreciated and valued for what they can contribute. It is evident that organisational culture is the product of social processes in the organisation, and that a smart culture is obtained through the careful consideration of various social processes, such as collaboration and communication.).

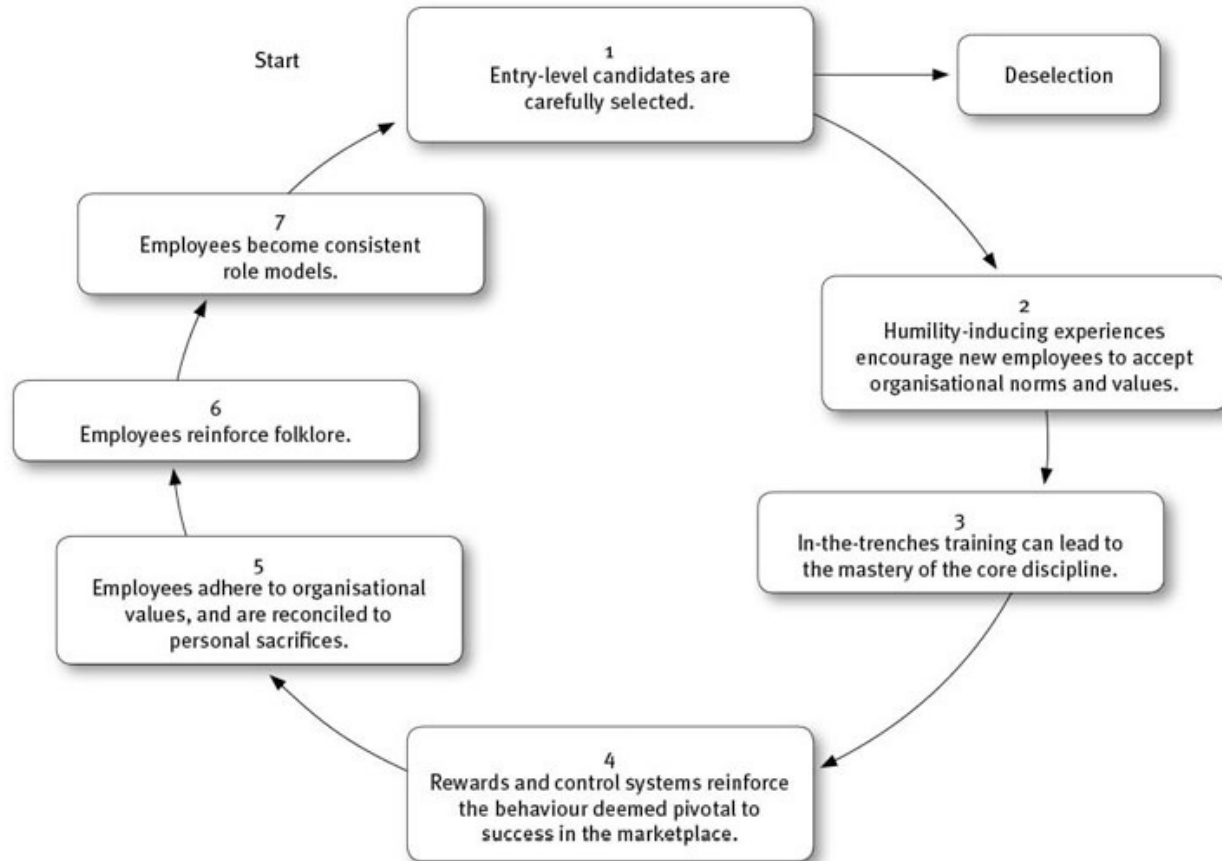
## 11.11 ORGANISATIONAL SOCIALISATION

*Organisational socialisation* refers to newly appointed employees acquiring the necessary skills, knowledge, attitudes, behaviours, values and norms, in line with the desired organisational culture, and adjusting to the new work and organisational context in order to function as fully effective and functional members of the organisation as soon as possible (Field and Coetzer, 2011). Effective socialisation contributes to retaining employees, improving productivity and reinforcing the desired culture. This is important, since people often leave an organisation within four weeks of employment, especially in the service industry.

### 11.11.1 The process of organisational socialisation

Although socialisation takes place throughout an individual's career within an organisation, it is most pronounced when a new employee enters the organisation. At this early stage the organisation seeks to mould the new employee into someone who will eventually display acceptable behaviour. What is important here is that a fit, or congruence, evolves between the individual and organisational goals. The process of organisational socialisation is presented in Figure 11.13. The socialisation agent, who is typically the supervisor or a co-worker, plays an important role in ensuring successful socialisation. However,

newcomers also play an active role in their own socialisation and sense making.



**Figure 11.13** The process of organisational socialisation.  
Source: Adapted from Ivancevich and Matteson (1993:684)

### 11.11.2 Stages of socialisation

Generally, three stages can be identified during socialisation, namely anticipatory socialisation, accommodation and role management.

#### 11.11.2.1 Pre-encounter phase or anticipatory socialisation phase

Before entering an organisation individuals are interested in what working for the organisation is really like and whether they are suitable for jobs available in the organisation. For a fit between individual and organisational goals, it is necessary that both the individual and the organisation portray themselves

realistically.

Effective anticipatory socialisation is enhanced through carefully designed recruitment, selection and placing programmes.

#### **11.11.2.2 Encounter or accommodation phase**

A critical transition takes place between the pre-encounter and encounter stage when adjustment is most intense and problematic as a result of a gap experienced between expectations and reality. This is also the time when a long-lasting relationship between the employer and employee can be established (Field and Coetzer, 2011). Social interaction during this stage is important as the newcomer learns skills, attitudes and behaviours from the supervisor and co-workers and also becomes established in a community. During this stage, the employee attempts to become a competent performer and an active participant in the organisation.

The accommodation stage comprises the following activities:

- establishing new interpersonal relationships with supervisors and co-workers
- obtaining knowledge regarding the tasks the individual is required to perform
- clarifying the individual's role in the organisation in both formal and informal groups relevant to the particular role
- evaluating progress being made towards satisfying the demands of both the job and the role.

If this stage is successful, the individual experiences a sense of acceptance by co-workers and supervisors and a feeling of competence in task performance.

Effective accommodation is achieved through:

- carefully designed and implemented orientation and training
- the provision of information for performance evaluation
- the assignment of challenging work
- the assignment of a supervisor with an achievement-oriented leadership style.

#### **11.11.2.3 Role management – ongoing adjustment**

Role management involves a broader set of issues and problems, which includes conflict between the work and home environments. Energy needs to be expended on, and split between, the job and the individual's family. Because the amounts of time and energy are fixed, and the demands of work and family can seem insatiable, conflict cannot be avoided. Those individuals unable to resolve such conflicts often choose to terminate their services with the organisation or to

perform at an ineffective level. In both instances, neither the individual nor the organisation is served well. Role management is important, because organisations can ill afford to lose capable employees. Employees can be encouraged to seek assistance through the Employee Assistance Programme to resolve these conflicts or to participate in a wellness programme that aims at enhancing optimal functioning in all spheres of life.

## **11.12 ORGANISATIONAL CHANGE AND DEVELOPMENT**

Organisations operate in an environment that is constantly changing, and have to change and develop in order to adapt to these changes. In this section the forces for change, change versus transformation, resistance to change and change approaches are discussed.

### **11.12.1 Forces for change**

The open systems model, presented in Figure 11.2, shows that organisations operate in a fluctuating environment and, to stay relevant and competitive, have to adapt to the changing environment. Forces for change come from both the external as well as the internal organisational environment. External forces include globalisation, technological, political, social, environmental and economic changes and changes in customer demands. Currently, the weakened world economy has a major impact on the ability of organisations to attract and retain customers and stay effective and efficient. Organisations are also increasingly challenged to become more environmentally friendly and in South Africa labour laws are under scrutiny to redefine the role of labour brokers. Organisations need to scan the environment on a regular basis and proactively adapt to these changes in order to stay competitive.

Internal forces for change derive from the inefficiencies in an organisation. Employee dissatisfaction, high levels of absenteeism and labour turnover, low levels of engagement and performance, quality issues and waste necessitate organisations examining themselves and taking corrective action.

### **11.12.2 Change versus transformation**

To prevent stagnation in changing environment, organisations are constantly busy changing and developing. Organisational change can take place on a continuum from *incremental adaptation to transformation*. Incremental

adaptation refers to continuous improvements to current products, systems, processes and technologies. These changes do not fundamentally alter what the organisation is doing but are aimed at streamlining and improving current activities and systems.

Organisational transformation, on the other hand, implies radical changes that alter the face of products and the organisation. Brown (2011) defines organisational transformation as drastic change to the organisational structure, culture and managerial processes. According to Cummings and Worley (2009) organisational transformation implies radical change in how organisational members perceive, think and behave at work. Transformation is the result of significant changes in the environment. Transformation brings fundamental change to the philosophy, values and structural arrangements of an organisation.

*Re-engineering*, a process through which an organisation is redesigned from scratch, is an example of organisational transformation. Re-engineering implies the reconfiguration of business processes based on the needs and preferences of customers. Takeovers, acquisitions and mergers also result in organisational transformation as a new leadership approach, systems, processes, products and work methods are introduced.

### **11.12.3 Resistance to change**

People naturally resist change, and do so even more when they feel it is forced upon them. They fear they will lose their jobs, not be able to meet new job demands, lose benefits or be separated from current co-workers. Managers also resist change out of fear that they will lose their authority and status, and also because change requires more effort from them. *Resistance to change* can manifest in both passive and active behaviours. Apathy is an example of passive resistance and obstruction is an example of active resistance.

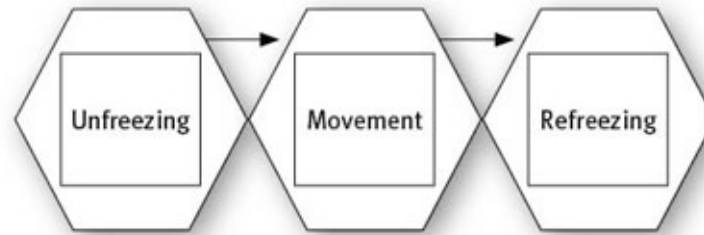
Change leaders have to put strategies in place to identify and deal with resistance to change. When employees understand the reasons for change, and participate in the process, they are much more likely to support the process than if they are not informed about these changes. Effective strategies for dealing with resistance include defining and articulating a shared vision, communication, exemplary leadership that models desired behaviour, inclusive organisational practices, rewarding change efforts and negotiation.

### **11.12.4 Kurt Lewin's change model for change**

Organisational development is a planned and systematic process through which

organisations renew their structure and their technical and human processes.

Kurt Lewin introduced a three-stage model that explains the main stages in the change process (see Figure 11.14):



**Figure 11.14** Lewin's three-stage model of organisational development.

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The first stage of change is called *unfreezing*. During this stage, management realises the need for change and prepares the organisation for change. Possible resistance is identified and dealt with by discussing the reasons for change with the employees. A new vision for the organisation is created, and the organisation is analysed to determine the gap between the current and the desired situation.

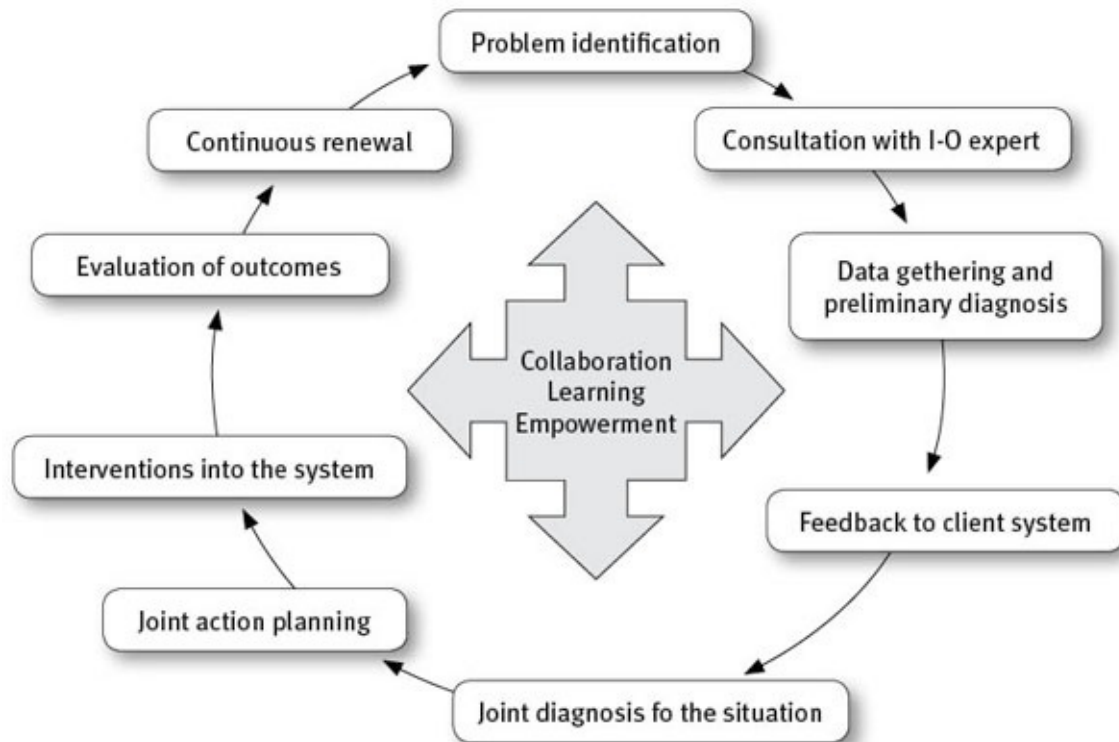
The second stage is called *movement*. During this stage, the strategies for change are developed and implemented. In other words, the actual changes take place.

In the last stage, which is called *refreezing*, the new levels of performance are reinforced until they become habitual.

#### **11.12.5 Organisational development as a change intervention**

Robbins and Judge (2009) describe organisational development (OD) as a collection of *planned interventions* aimed at improving organisational effectiveness and employees' well-being. The underlying values of most OD programmes include establishing respect, trust and support, power equalisation, open confrontation of problems, and participation. It is evident that organisational change implies social change in the organisation.

*Action research* is used as a basic model for organisational change and development. This model is illustrated in Figure 11.15.



**Figure 11.15** Action research model.

Before change can be implemented, the need for change must be anticipated and *the problem identified*. Management is sensitive to changes in the organisation's external and internal environment and the organisation's ability to respond to these changes. Management might, for example, realise that the current technology used in the organisation is becoming outdated, and that the current skill-level in the organisation is low in comparison to those of similar organisations. Without change, the organisation will become less competitive and struggle to survive.

At this stage, the client enters into consultation with a *behavioural science expert* (I-O expert), who is also called a change agent. A *change agent* helps the organisation understand where it currently is and where it wants to be, and assists the organisation in designing and implementing appropriate change interventions. Congruence between the value system of the I-O expert and the client is important to ensure successful change. Brown (2011) identifies leadership, project management, communication, problem-solving, and interpersonal and personal skills as essential competencies for a change agent to be effective. A change agent does not tell the organisation how to change, but

manages the process. The change agent ensures that the change process is a well-planned, collaborative effort. The change agent can teach organisational members how to communicate better, how to solve problems rationally, and how to set goals. Organisational development is therefore a collaborative and empowering process in which organisational members learn to *reflect, self-examine, diagnose and make improvements*.

After the need for change has been identified, data is gathered from the client system and a preliminary diagnosis is made. The change agent will manage the systematic collection and analysis of organisational information. This can be done by looking at existing organisational records, such as production, cost-analysis and absenteeism records, interviewing key people in the organisation, and using questionnaires to collect information on issues such as the management styles, communication processes or decision-making styles used in the organisation. Once the information is collected, it is carefully analysed to identify underlying problems and areas for improvement. *Feedback* is then provided to the client system and a joint diagnosis is made of the problem.

Based on the diagnosis of the current situation and problems, appropriate *interventions* are *jointly* developed to improve the organisation.

Three categories of strategies can be developed and implemented:

- *Structural strategies* aim at changing the structure of the organisation to make it more flexible, enhancing collaboration and communication amongst organisational members, and increasing accountability through increased participation in decision-making. The structure of the organisation can be changed, for example, from a traditional, hierarchical structure to a more market-oriented or integrated structure.
- *Technical strategies* involve the upgrading or introduction of new technology into the organisation.
- *Behavioural and social strategies* are aimed at establishing shared values, a work ethic, a high level of motivation and an appreciation of diversity, and also at equipping employees with the necessary competencies to attain excellence.

Change interventions can aim to achieve three types of social development (Brown, 2011):

- *the development of individuals* (Interventions aimed at individual development include empowerment, interpersonal-skills training, career-life planning and wellness strategies. The purpose of these individual strategies is: to encourage accountability, creativity, innovation and excellence; to help

employees and managers reach their full potential; and to assist them in dealing with change.)

- *the development of teams* (Team strategies are aimed at identifying and solving problems such as a lack of communication, conflict, or poor decision-making, and at helping teams to set goals and allocate tasks. Change interventions can also be aimed at multiple teams in the organisation.)
- *the development of the organisation as a whole* (Interventions aimed at the organisation as a whole include changing the overall managerial approach from a traditional authoritarian approach to one of participation, changing the organisational culture to an adaptive or smart culture (see section 11.10.2), and introducing a total-quality-management approach.

The results of the change programme are *evaluated* to determine whether the envisaged goals have been achieved. Outcomes that can be evaluated include quality, efficiency, effectiveness, and customers' and employees' satisfaction. If the goals have been achieved, it is time to celebrate and reward worthy contributions to the change process. If the goals have not been achieved, the programme is adapted and the required behaviours strengthened. Action research is a cyclical process of data collection, diagnosis, change and reflection, feeding the results back into the organisation for rediagnosis and new action.

#### **11.12.6 Appreciative inquiry**

*Appreciative inquiry* is a relatively new approach to organisational change and development, originating from a need to take a more positive look at what works well in an organisation rather than focusing on problems and negative issues. This approach is especially useful during mergers and takeovers, when organisational members are more prone to resisting change and focusing on the pain of adjustment by using *vocabularies of deficits*. Appreciative inquiry was developed by David Cooperrider who felt that traditional OD practices were limiting and, due to their problem-solving orientation, resulted in fault finding, blaming and defensive behaviours (Van Tonder and Roodt, 2008). Appreciative inquiry is an approach that carefully directs the discourse of participants in a constructive, stimulating and *life-giving way*. It strongly emphasises that organisations are social entities and that people create and give meaning through discussion and interaction.

Appreciative inquiry takes place in five phases. The first phase sets the scene, whilst phases two to five are normally called the 4-D cycle of discovery, dream,

design and destiny.

- Phase one – Define affirmative topic choice: In this phase topics are identified by asking unconditionally positive questions about the organisation.
- Phase two – Discover: In this phase the life-giving strengths of the organisation are extracted through inquiry. Organisational members interview each other to solicit stories of strengths and accomplishments. These are then shared in small groups.
- Phase three – Dream: Members create positive images of the future. These positive images are compelling because they are anchored in exceptional past moments as revealed in the discovering phase.
- Phase four – Design: In this phase the participants discuss the preferred social architecture, comprising key aspects of the organisational structure and system that will provide a framework for realising the dream.
- Phase five – Destiny: This phase is considered the delivery phase where the envisaged dream and design are actualised. This is done by recognising and celebrating the new learning and transformations experienced in the previous stages, the voluntary joining of action groups selected to give impetus to goal-driven changes and integrating an appreciative inquiry culture into all systems, processes and daily interactions.

Appreciative inquiry therefore uses discourse as a tool for change and provides an environment in which people reconstruct their shared reality to inspire positive action.

### **11.13 SUMMARY AND CONCLUSION**

This chapter considered the organisation as an open system that interacts with the external environment. The social system in the organisation consists of individuals and groups. Groups are important building blocks in the organisation. This chapter covered important aspects with regard to understanding the nature of groups, and applied aspects relating to group functioning. These include group development, types of groups, group structure and group processes. Group facilitation, as an intervention into the functioning of a group, was also discussed.

Groups are unavoidable in human interaction, work tasks and organisational functioning. The organisation itself is a group, and the socialisation of employees into the culture of the organisation contributes to the effectiveness of the organisation. An I-O psychologist does his/her work on the levels of

individual employees, groups of employees, and the organisation as a large group. Knowledge of group behaviour can be applied in any group activity in the work situation, including meetings, training, development and, even, the drinking of tea. It applies to working with teams and improving their performance to attain higher productivity. Assessing and understanding the intricate behaviours and complex interactions in group behaviour and their relationships with work-related performance factors, remains an ongoing and specialist task of I-O psychologists. In addition, I-O psychologists are also involved as change agents in the development of the organisation. In this respect, an in-depth knowledge of group behaviour and group dynamics is a prerequisite for assisting the organisation in its change efforts.

## **11.14 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Which of the following is an example of a task role?
  - a) influencing group members to accept a specific idea so that the meeting will not be drawn out
  - b) reminding the team of an embarrassing incident that negatively affected relationships in the past, so that they won't make the same mistake again
  - c) encouraging members to make newcomers feel welcome and valued
  - d) summarising the main issues discussed so that the group gets clarity on the extent of a problem
  - e) supporting the team because it shows loyalty.
2. According to the punctuated-equilibrium model, in what phase do groups experience a transition where goals, activities, contributions and purpose are reconsidered?
  - a) first meeting
  - b) last phase
  - c) storming stage
  - d) halfway
  - e) forming stage.
3. In group dynamics a silo refers to:
  - a) unconscious psychological barriers between groups
  - b) departmentalisation in organisations

- c) a large power distance within a group
  - d) the physical location of a group in comparison to those of other groups
  - e) status differences.
4. At Carpet World, a team of change agents are appointed to assist in the establishment of a culture in which employees will be empowered. Based on the systems model, this type of change is aimed at the
- a) mesosystem
  - b) socialisation system
  - c) microsystem
  - d) structural system
  - e) macrosystem.
5. Which of the following means is used by change agents to record and illustrate the interactions between team members?
- a) dash board
  - b) communication spreadsheet
  - c) sociogram
  - d) nominal group technique
  - e) charter.

## **Answers to multiple-choice questions**

1 = d; 2 = d; 3 = a; 4 = e; 5 = c

## **Issues for discussion and practice**

1. What typical challenges are experienced by individuals belonging to multiple teams and what practical steps can be taken to address these challenges?
2. What are the basic principles of effective communication in teams?
3. Discuss the role of the socialisation agent in the socialisation process.
4. Draw a floor plan of your work department or home environment. Use the behavioural concepts playing a part in group dynamics to determine the power and authority boundaries, and how these influence the relationships. For example, in the workplace, investigate where the manager's office is (representing official power), who is closest to him/her, where the tea room (representing non-official activities) is, where the entrance, the fax machine, stairs and toilet are, and so on. Try to think about what the different parts represent in the

mind of the system.

5. Discuss Kurt Lewin's model of organisational change and indicate the implications of this model for an organisation that wants to introduce new processes, systems and behaviours to improve customer service and customers' perception of the organisation.

## CASE STUDY

Fab Furniture Company introduced self-directed work teams. Team members were carefully selected to ensure that they had the necessary skills to complete the core work. Each team was allowed to select a team name that would distinguish it from other teams. The reward system of the organisation was changed to provide rewards for the attainment of individual, team and organisational goals. Team members also received technical training to encourage multiskilling.

Whilst most of the teams adjusted relatively well to the changing structure, work patterns and relationships, one specific team, Formula 1, showed continuous signs of struggle, conflict and discontent. The group often did not meet targets, was plagued by quality and waste problems and built up a reputation for not collaborating with other groups in the organisation. Members of this team were also often in trouble for excessive absenteeism and not following safety rules.

The HR manager enlisted the assistance of an I-O psychologist to interview team members and get to the bottom of things. The interviews revealed that some employees did not get along well with the team leader. They thought the team leader was bossy and that he favoured some employees above others. The differences were perceived to run along cultural and gender differences. The team leader, who was male, clearly had a greater affinity for female employees, especially those who spoke the same language as he did. These employees acted as self-appointed informants that childishly squealed on others who made mistakes or omitted something. Team members felt powerless to change the situation and emotionally withdrew by doing the least required to keep their jobs secure.

The team leader informed the I-O psychologist that he had a

meeting with all the employees every Monday and then informed each person what was expected in terms of quality and quantity. He was therefore in a good position to determine who performed and who did not.

Some team members told the I-O psychologist that it was not the team leader, but that some other team members themselves were responsible for the situation. Some members showed a bad attitude, engaged in social loafing and formed cliques. Others felt that there was no clear agreement on who had to do what and that team members were not willing to openly debate issues and take responsibility for the outcomes of the team.

- 
1. Using the five-stage model of group development, comment on the problems this group is experiencing and still using the model, suggest appropriate remedies.
  2. Identify examples of norms in the above situation. Explain the importance of norms in groups and whether the norms of the Formula 1 group are helpful or not.
  3. People take on different roles in groups. Can you identify examples of these different types of roles in the above situation?
  4. Is the above team meeting the criteria for self-directed work teams?
  5. The composition of a team is an important structural variable that impacts on performance, satisfaction and retention. Explain.
  6. What guidelines can the manager follow to improve relationships with and amongst culturally diverse group members?
  7. Use acknowledged concepts to explain the underlying psychodynamics in the Formula 1 group.
  8. Explain why the group's tasks make collaboration essential.
  9. Considering factors that contribute to cohesion, explain the lack of cohesion in this group.
  10.  
Suggest practical ways in which communication in the group can be improved.
  11.  
Discuss the importance of trust and how trust can be built in the Formula 1 team.

12.

Conduct a SWOT analysis of the Formula 1 group.

## **CHAPTER 12**

# **Leadership and entrepreneurial behaviour**

*Amanda Werner and Herman Roythorne Jacobs*

12.1

## [Introduction](#)



[The social process of leadership](#)

12.3

## Approaches to studying leadership

12.4

Leadership: A strategic and visionary perspective

12.5

## Transactional versus transformational leadership

12.6

Leadership and management

12.7

## Contemporary leadership issues

12.8

## Entrepreneurial behaviour



## Summary and conclusion

12.10

## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- define leadership
- discuss leadership traits, competencies and values
- discuss situational theories of leadership
- describe main components of visionary leadership
- discuss challenges related to and strategies for intergroup leadership
- compare transactional and transformational leadership
- compare leadership and management behaviours
- debate contemporary issues in leadership
- define entrepreneurship
- identify the characteristics of entrepreneurs
- demonstrate an understanding of the negative risks associated with entrepreneurship
- discuss intrapreneurship culture and leadership in organisations.

### 12.1 INTRODUCTION

In the 21st century, leadership is being impacted by the three major forces of change, namely globalisation, liberalisation and technology (Neera, Anjanee and Shoma, 2010). To cope in this changing environment, a new breed of leader is required. Leaders have the capacity to influence the behaviour and mindsets of people and appeal to their values and beliefs, to inspire them to willingly and enthusiastically contribute to the attainment of shared goals. The trait approach focuses on the outstanding personal attributes of leaders and, in contemporary times, emphasises the principles and values that successful leaders share. The behavioural approach postulates that an optimal concern for both the task and relationship with followers constitute effective leadership, whilst the situational or contingency approach cautions that situational demands determine which leadership style is most effective at a given time. Though traditional approaches to leadership, such as the trait, behavioural and situational (contingency) approaches, still make a valuable contribution to understanding the foundations of leadership, the focus nowadays is on transformational and innovative

leadership. The constantly changing and challenging environment necessitates leaders to be visionary and entrepreneurial. Modern day organisations are boundaryless and characterised by internal and external networking which require leaders to give close attention to organisational culture and intergroup development.

The *aim* of this chapter is to provide a broad overview of leadership, starting with the more traditional leadership approaches and then exploring leadership challenges and responses in contemporary times. I-O psychologists need to have knowledge of leadership behaviour and related processes to be able to identify and develop leadership potential, which can contribute to improved employee and organisational performance, as well as facilitating entrepreneurial behaviours that will enhance innovation and creativity in workplaces.



**Figure 12.1** Prof. Jonathan Jansen, Chancellor of the University of the Free State, is an inspiring leader when needed.  
Photographer: Stephen Collett

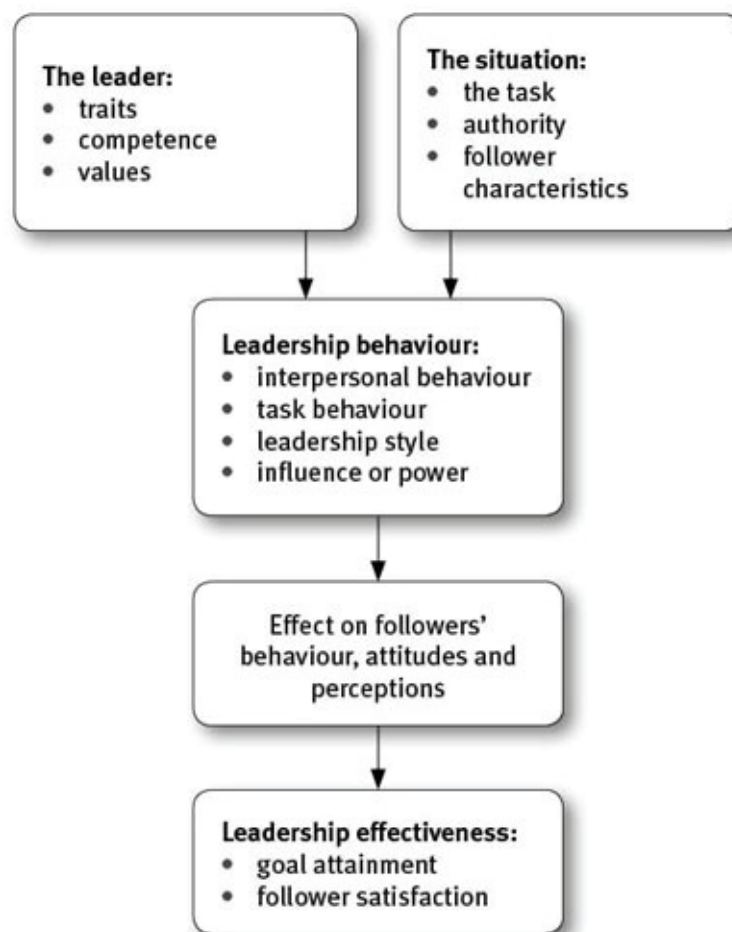
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## 12.2 THE SOCIAL PROCESS OF LEADERSHIP

*Leadership* is a social process in which people are influenced to work voluntarily, enthusiastically and persistently towards attaining a group goal (Werner, 2011). The purpose of leadership is to build effective teams, plan and

decide effectively, motivate people, communicate a vision, promote change, and create effective relationships. Effective leaders unleash the potential in people so that they become creative, innovative, participative and fully engaged with their jobs. The box, “Backseat leadership” below illustrates this point.

In terms of the Open-Systems Model described in the orientation section of this book, leadership is an organisational process that provides inputs that influence individual processes, and consequently work-task processes, as well as social processes. All of these in turn influence the effectiveness of the organisation. Figure 12.2 provides an overview of the leadership process. It shows that leadership is a complex process that is influenced by the leader’s characteristics and the situation in which he/she must operate. The leader’s behaviour impacts on his/her followers’ behaviours, attitudes and perceptions. This complex interaction between all these factors determines whether a leader is effective or not. Effectiveness is measured by whether goals have been attained and employees are satisfied.



The leadership process.

### **Backseat leadership**

Fleming (2011) compares leadership to driving a car. In too many organisations the practice of leadership involves the manager “driving the car” whilst employees become captive passengers who must simply follow the “rules” of the car, and who end up sleeping or engaging in social networking. He encourages leaders to allow employees to become “backseat drivers”, enabling them to make suggestions about the route to follow, sharing information about obstacles and congestions, the optimum speed at which to travel, when to fill up, interesting and necessary stops to make, and even the desirability of the destination. An effective leader is one who recognises the potential of followers and provides opportunities for them to make a valuable contribution to the success of an organisation. Such a leader, according to the author, is able to discern when it is time for him-/herself to sit in the backseat and allowing the employee to “drive the car”. The view from the back might prove to be very interesting and informative!

## **12.3 APPROACHES TO STUDYING LEADERSHIP**

Leadership is a complex interaction between the characteristics of the leader, the followers and the situation. Various approaches are used to explain and understand leadership. These include the trait, behavioural and situational approaches.

### **12.3.1 The trait approach**

When students have to choose a group leader, they often choose someone who is well-spoken, self-assured and perceived as knowledgeable. The trait approach proposes that certain people are born with the *right characteristics* or *personalities* to make them effective leaders. This approach assumes that there are specific individual traits in effective leaders. Originally, this approach gave

rise to the Great Man Theory, which involved studying the characteristics of well-known leaders, such as Ghandi and Martin Luther King. Outstanding characteristics identified in leaders included intelligence, scholarship, dependability in exercising responsibilities, activity and social participation and socio-economic status. In another study, sociability, initiative, persistence, knowing how to get things done, self-confidence, alertness to and insight into situations, cooperativeness, popularity, adaptability and verbal facility were identified as characteristics of leaders (Neera, Anjanee and Shoma, 2010). The problem was that, despite many different studies, no universal set of leadership characteristics could be pinned down. In addition, it was realised that many people who had these characteristics, did not rise up as significant leaders.

Gordon (2002) suggests that leaders share a high level of emotional intelligence. Emotional intelligence gives leaders the ability to influence people through constructive interpersonal interaction so that they will strive towards goal achievement. Emotionally intelligent leaders are:

- tuned into their own and others' emotions
- able to control their own emotions in order to achieve high levels of motivation
- able to empathise with others
- able to build and maintain constructive relationships with others.

*Competencies* are clusters of personality traits and behaviours. Effective leaders possess (De Vries, 2005):

- *personal competencies*, such as achievement, motivation and self-confidence
- *social competencies*, such as influence, empathy and political awareness
- *cognitive competencies*, such as abstract and strategic thinking.

The contemporary approach is to focus on leadership competencies and principle-centred leadership, rather than on the specific personality traits of leaders (Werner, 2011). *Principle-centred leadership* refers to values such as honesty, integrity, respect for human dignity, equal opportunities, teamwork, customer satisfaction, and quality. Leaders are more successful in the long term if their followers trust them.

### **12.3.2 The behavioural approach**

One of the main criticisms of the trait approach was that environmental and situational factors determining leadership were ignored. The focus was then shifted away from traits to leadership behaviours. According to the behavioural

approach to leadership, leadership *behaviours* and not traits determine effective leadership (Neera, Anjanee and Shoma, 2010).

Studies conducted at the University of Michigan in the USA identified two specific leadership behaviours or styles:

- *Job-centred behaviour*: A job-centred leader focuses on the task and job procedures, and uses a more autocratic style.
- *Employee-centred behaviour*: An employee-centred leader focuses more on relationships, motivation and the satisfaction of employees' needs.

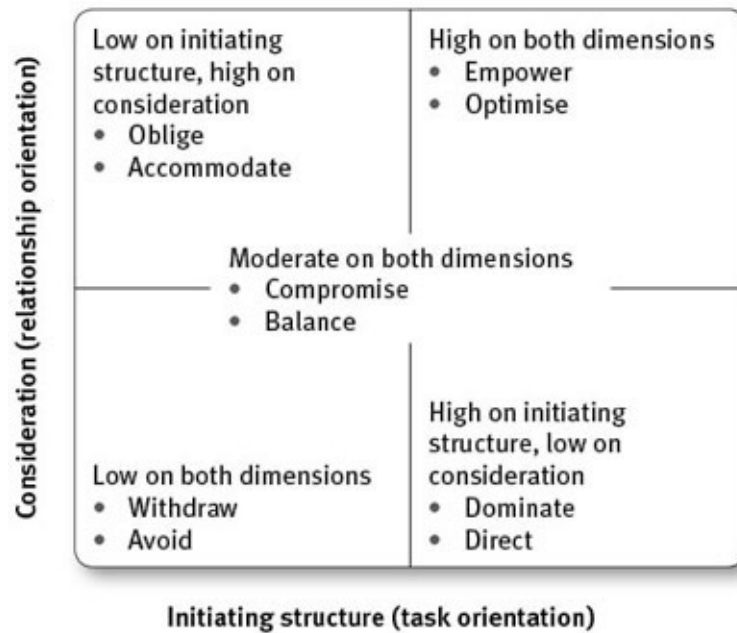
The implication of the behavioural approach is that a leader can choose to be either more autocratic or more democratic (participative). This constitutes a one-dimensional model.

Research conducted at the Ohio State University in the USA presents a more complex, two-dimensional model, which implies that leaders are not necessarily *either* task- or people-oriented, but can have a unique combination of these two orientations. The two dimensions of this model are initiating structure and consideration:

- *Initiating structure* is task behaviour in which the supervisor focuses on getting the job done by clarifying roles, scheduling tasks, assigning tasks, setting standards and checking performance.
- *Consideration* refers to the extent to which a leader regards the employees' individual needs by engaging in two-way communication, inviting opinions and ideas, and respecting employees. This leader tends to be friendly and approachable, puts group suggestions into operation and treats all group members as equals. Such leaders might engage in actions such as doing favours for subordinates, explaining things to them, and ensuring their welfare. Consideration is thus concerned with establishing good relationships with subordinates and being liked by them.

As can be seen in Figure 12.3, a leader can be high or low on both dimensions, or high on one dimension and low on the other. Whichever style the leader follows will affect the extent to which the leader communicates with employees, and allows them to participate in decision-making. It will also affect the way in which the leader deals with conflict. For example, a leader who considers both the task and the employees as important will engage in constructive problem-solving, whilst a leader who is only task-oriented will be more impatient and dominant. A leader who is more concerned with employees will be more willing to accommodate their opinions and feelings, and to involve them in decision-

making.



**Figure 12.3** The behavioural approach to leadership.

Leadership behaviour is also defined in terms of the power the leader uses to achieve goals. In order to explain this, it is important to distinguish between authority and power. When managers are appointed, they receive, owing to their position, the right to exercise *authority* over subordinates to achieve organisational goals. *Power*, unlike authority, is not awarded to a manager by virtue of his/her position. Five types of power can be distinguished:

- *Legitimate power*: In this case, employees accept that a leader has legitimate authority and therefore allow the leader to influence them. The followers themselves expect the leader to guide and instruct them.
- *Reward power*: This refers to the ability the leader has to reward or punish followers. Such rewards may include salary increases, bonuses, recognition, interesting tasks or acceptance.
- *Coercive power*: This power is exercised through psychological fear, such as the fear aroused through intimidation.
- *Referent power*: A leader who has personality or behavioural traits that others admire, such as a charismatic personality or good communication skills, has this type of power. Followers like to be associated with such a leader and are more likely to be influenced by him/her than by a leader who does not possess

attractive characteristics.

- *Expert power*: This power is based on knowledge and expertise. Employees will prefer to follow a leader perceived as knowledgeable, rather than a leader who is perceived as ignorant.

It is also important at this stage to distinguish between position power and personal power. *Position power* constitutes formal leadership in all organisations from top to bottom. *Personal power* constitutes the informal leadership allocated to a leader by subordinates or followers, either because of personal characteristics or qualities.

It seems that more is achieved by the use of personal power than by the use of position power, as an over-reliance on position power can have negative consequences. Position power can be abused, as is the case when supervisors are given power to award pay increases, deduct pay and so on. They tend to use these influencing tactics more frequently than they use personal persuasion. For leaders to be successful, they need to exercise leadership so that a healthy balance exists between their power and that of their subordinates.

In the context of leadership, power and authority, one could ask: “What is influence?” Whereas power refers to whether a person can wield influence, *influence* refers to the actions or tactics a leader uses to change the behaviours of others. In an attempt to change others, people in leadership roles might apply pressure, appeal to those above them, promise rewards in exchange for compliance, form coalitions, use rational arguments, inspire through appeals to values and ideas, allow others to participate in decision-making, and use their legitimate authority.

### 12.3.3 The situational or contingency approach

Situational or contingency-leadership approaches claim that there is not one best way to lead people, but that the *situation dictates* the leadership style that should be used. The effectiveness of the leadership style is therefore contingent on the situation. Two prominent situation-oriented approaches are:

- the Fiedler Contingency Model
- the Path-Goal Model.

Fiedler’s Model assumes that a leader has a fixed leadership style and must change the situation to suit the style, whilst the Path-Goal Model postulates that the leader can vary his/her style according to different situational demands.

### 12.3.3.1 Fiedler's Contingency Model

Consider how successful a sergeant major in the army would be if he/she continuously sought the soldiers' opinions, asking, "Do you want to march left or right?," or, when they are about to be attacked in combat, saying "Let's first have a meeting and reach consensus on which tactic to use." Soldiers know that they are expected to carry out orders, submit to a higher order, and execute tasks in a predetermined way. Fiedler's Model shows why a sergeant major, by the nature of the situation, will be more effective if he/she is more autocratic (task-oriented).

In contrast, experienced designers at a fashion house, where creativity and innovation are imperative for success, might be very dissatisfied if their manager uses autocratic behaviours. In this case, the nature of the situation is different.

Fiedler's theory highlights two variables that influence leadership effectiveness: the leadership style and the degree to which the leadership situation is favourable for influencing followers. Fiedler's concept of situational favourability, or the ease of influencing followers, was defined as the combination of leader-member relations, task structure and position power. Measuring each as high or low, Fiedler came up with eight classifications of situational favourability (Neera, Anjanee and Shoma, 2010).

According to Fiedler's Model, a leader's effectiveness results from the *interaction between the leader's traits and the various features of a particular situation*. This theory states that group performance depends largely on the interaction between leadership style and situational favourableness.

A distinction is made between a task-oriented leadership style and a relationship-oriented leadership style. A *task-oriented leader* is more controlling, active and structuring, whereas a *relationship-oriented leader* is more permissive, passive and considerate. Fiedler developed the Least Preferred Co-worker Scale (LPC Scale) to determine leadership style. A least preferred co-worker is a person who one would least like to work with. It might be a very likable person, but someone one just does not want to work with. The LPC Scale is then used to rate the characteristics of this least preferred co-worker on a continuum, using a series of adjectives, as demonstrated below:

Unfriendly ...1 ...2 ...3 ...4 ...5 ...6 ...7 ...8 ...9 ...10      Friendly  
Pleasant    ...1 ...2 ...3 ...4 ...5 ...6 ...7 ...8 ...9 ...10      Unpleasant

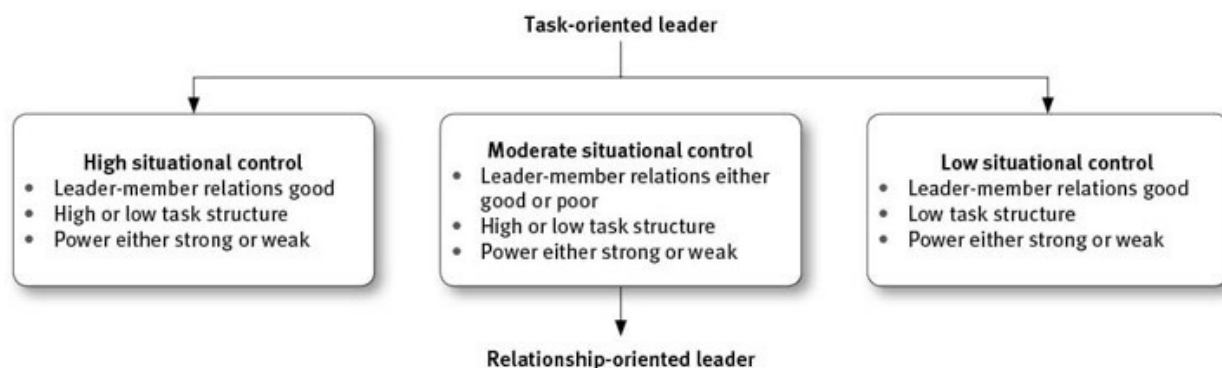
If a more positive rating is given of the least preferred co-worker, the rater is considered relationship-oriented, and if a more negative rating is given, the rater is considered more task-oriented.

Fiedler proposed the following three factors that determine the degree of situational favourableness:

- *Leader-member relations* refer to the degree of confidence, trust and respect followers have in or for their leader. These relations are a reflection of how well the leader is accepted by the followers. This is the most important factor.
- *Task structure* refers to whether the task is straight-forward or complicated. This is the second most important factor. A structured task can be executed by following standard procedures, whilst an unstructured task requires creativity and problem-solving.
- *Position power* refers to how much authority the leader has over the group.

By combining these factors, the situational control of the leader can range on a continuum from very high (positive relations, structured tasks and high position power) to very low (negative relations, unstructured tasks and low position power). Figure 12.4 illustrates the match between leadership style and situational control for optimal leadership effectiveness.

When considering which leadership style is the most effective, Fiedler stated clearly that there is no “best” style of leadership, but that it depends on the particular situation. An effective leader is one who uses a style that fits the situation. A task-oriented style is more effective when the situational favourableness is either very low or very high. A relationship-oriented style is more effective when the situational favourableness is moderate.



**Figure 12.4** Matching situational control and leadership style.

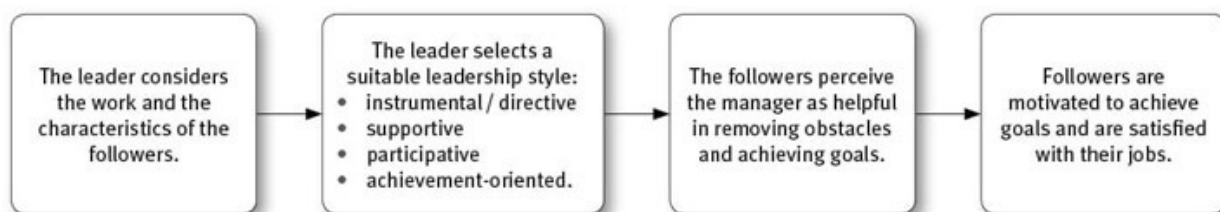
### 12.3.3.2 The Path-Goal Model

The Path-Goal Model also suggests that the effectiveness of leadership depends on situational factors. This theory states that leaders influence the performance of followers by *clarifying the paths* (behaviours) that will lead to the attainment of goals and rewards (Werner, 2011). A leader is perceived as effective by followers if he/she helps them to be successful so that they can receive the rewards that they value.

The leader chooses one of four basic leadership styles (Gordon, 2002):

- *The instrumental or directive leadership style:* The leader tells the employee what to do, and how to do it.
- *The supportive leadership style:* The leader shows concern for the well-being of employees by being friendly and approachable.
- *The participative leadership style:* The leader involves employees in decision-making by asking for their opinions and suggestions.
- *The achievement-oriented leadership style:* The leader helps employees set goals, provides rewards for the accomplishment of goals, and encourages the employees to take personal responsibility for the attainment of goals.

These styles are not necessarily mutually exclusive; the same leader can adopt them at different times and in different situations. Showing such flexibility is an important aspect of being an effective leader. When a leader decides on the best style to follow, he/she should consider various characteristics of the employees (such as skills and needs) and the work environment (such as task complexity). An overview of the Path-Goal Model is presented in Figure 12.5.



**Figure 12.5** The Path-Goal Model of leadership.

## 12.4 LEADERSHIP: A STRATEGIC AND VISIONARY PERSPECTIVE

As stated in the introduction to this chapter, leadership refers to the process of influencing the activities of individuals or a group towards the setting and achievement of goals. In order to compete in the markets of developed countries, organisations need to adopt best practices and produce superior-quality goods and services, which will place them in a similar position to other organisations and enable them to compete. However, if an organisation wants a competitive edge (wants to be able to outperform other organisations), it needs a unique competitive strategy that will enable it to satisfy customer needs in a unique manner. Therefore, leaders need to create a vision for the organisation and develop a strategy that will realise that vision (Ehlers, 2004).

#### 12.4.1 Future-state visioning

Van Maurik (2001, p.8) defines *vision* as a “realistic, credible, attractive future” for the organisation. Landsberg (2002) states that a vision is a positive image of what the organisation can become, and the path it intends to take towards that destination. The leader inspires followers to believe in this vision and creates momentum to ensure that the vision is actively pursued. The box below shows an example of a vision.

##### **An example of a vision**

Consider the vision of a cellular-communication organisation: “Our vision is to delight all customer groups with excellent service and technologically advanced products.”

According to Ehlers (2004), a vision provides decision-making guidelines to both managers and employees, and therefore empowers them. The vision should indicate the business (or business strategy) and the desired outcome (which is achievable through hard work and innovation). Team and individual tasks/objectives are then formulated in such a manner that each individual knows that by focusing on these tasks/objectives, he/she is supporting the organisational vision.

Van Maurik (2001) sees *future-state visioning* as a powerful leadership process in long-term planning. It refers to predicting the organisation’s future state without too much in-depth analysis of the current state. It serves as a framework to enhance future thinking regarding organisational change (captured

in corporate, team or individual visions), or developing new ways to address problems or situations.

Leaders use the following guidelines to accomplish future-state visioning:

- Develop a comprehensive list of stakeholders and attempt to view the future and present state of the organisation through their eyes.
- Create a comprehensive future vision regarding the organisation.
- Consider the present state.
- Contrast the future vision with the present state.
- Develop and express the values that will guide the organisation towards achieving the required vision.
- Ensure that the vision is expressed in terms of actionable concepts embedded in an appropriate business plan.
- When drafting a business plan, consider core values and the core purpose.

*Values* refer to what people believe in. *Core values* form the central and enduring principles of an organisation and are those things people believe to be essential. They therefore have intrinsic value within the organisation. Consistency, integrity, fairness and the preservation of human dignity are important values (Pretorius, 2005). These principles are timeless and can guide an organisation through turbulent changes.

The *core purpose*, in contrast, is the organisation's reason for being. It reflects individuals' idealistic reasons for executing the tasks and duties expected from them. The core purpose of a cellular-communication business, for example, is to provide innovative communication tools and equipment through the utilisation of advanced technology. Leaders articulate the values of the organisation and invite followers to comment on these values in order to create "buy-in", that is to get followers to accept and support the values.

## **12.4.2 Characteristics of visionary leadership**

Visionary leaders tend to show particular characteristics that distinguish them from traditional leaders. Such characteristics include having charisma, and understanding and practising transformational leadership.

### **12.4.2.1 Charismatic leadership**

Charismatic leaders possess certain characteristics that make them unique and successful, no matter what their purpose might be, whether it is leading a country or leading a campaign to promote a societal issue. An important

characteristic is *vision*, and the ability to articulate that vision. It would be almost impossible to be a successful leader – or to be any kind of leader for that matter – without a vision. Charismatic leaders normally have very strong convictions regarding their vision.

What makes charismatic leaders stand out, however, is that they portray behaviour that is out of the ordinary. They engage in behaviour that is perceived as being novel, unconventional and counter to norms. Charismatic leaders are confident and dominant. They use moral conviction and charisma to inspire their followers.

They are also perceived as being change agents: people who are instrumental in making radical changes in the *status quo*. In their aim to bring about change, charismatic leaders are able to make realistic assessments of environmental constraints and resources needed to bring about change, and are thus sensitive to the environment (Robbins and Judge, 2009).

According to Gordon (2002), charismatic leadership could have a “dark side” to it, such as when a leader uses charisma to persuade followers to do things that are not good for them, or that are unethical.

#### **12.4.2.2 Transformational leadership**

Many organisations are currently in a state of transition or renewal, adapting to environmental changes brought about by sociopolitical or socio-economic factors. Transformational leaders are leaders who successfully steer organisations through such periods of *transition*. Transformational leaders pay attention to the opinions, concerns and developmental needs of followers. They instil innovative, creative and critical thinking in followers, and they excite, arouse and inspire followers to put extraordinary effort into achieving organisational goals (Gordon, 2002). Transformational leaders use relationship-building rather than authority to inspire followers to high levels of achievement. They appeal to the motives, beliefs, values and capabilities of followers to create congruence between followers’ own interests and personal goals and those of the organisation (Neera, Anjanee and Shoma, 2010). Bass and Avolio identified four unique but interrelated behavioural components of transformational leadership (Soliman, 2011):

- inspirational motivation (articulating an appealing and/or evocative vision)
- intellectual stimulation (promoting creativity and innovation)
- idealised influence (charismatic role modelling)
- individualised consideration (coaching and mentoring).

The transformational leader, as the champion of change, initiates change, creates momentum and carries the change process through by:

- being the main change agent who totally supports and champions change
- developing more change agents, therefore cascading change down the organisation
- selling the dream and “walk the talk”, garnering support and being an example
- communicating the right message at the right time, listening and addressing concerns
- aligning vision with execution, engaging key sponsors and stakeholders, growing a team of people to support change and continuously communicating to impacted parties (Sabarudin, Wan Fadzilah and Raja Hisham, 2012).

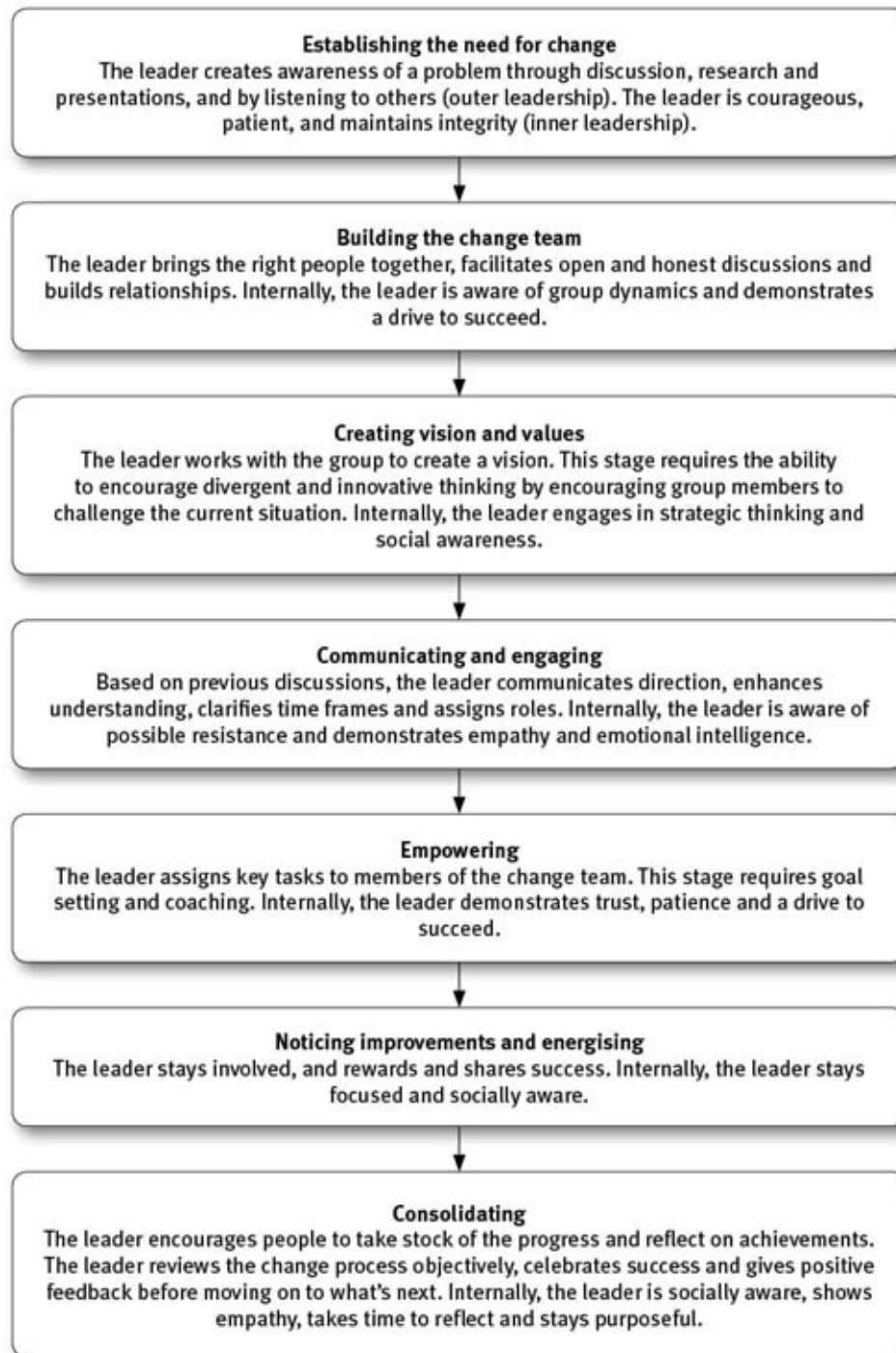
Granger and Hanover (2012) emphasise the ability of transformational leaders to create new perspectives in the face of unique challenges, for which textbooks and past experiences do not provide answers. They believe that most managers have not yet mastered the skill to adapt to non-routine adaptive challenges which require new ways of thinking. Transformational leaders have a unique cognitive and social approach to these non-routine adaptive situations.

These leaders approach unique challenges as an opportunity rather than a threat and therefore respond with curiosity, open mindedness, seeking further information, fostering connections and negotiating solutions. They are not restricted by a fixed mental perspective (schema), such as a “we know better” attitude or believe that there is one routine way to deal with a problem, which will limit their response to new situations. They realise that a future that is unpredictable requires new thinking and new action. With this realisation, they create a new context that leaves them empowered and enabled. This context also allows followers to create new perspectives to challenges. They highlight the importance of language, in the form of stories or imagined futures, as a powerful tool to create new perspectives.

Cameron and Green (2004) identified different leadership stages in the process of transformation (or change). They also mention particular leadership behaviours related to each stage. Leadership behaviours are divided into outer and inner leadership: *Outer leadership* refers to the observable behaviour of leaders, whilst *inner leadership* refers to leaders’ personal emotions, orientations and cognitions (their unobservable behaviour).

The stages are presented in Figure 12.6. As can be seen, much is expected of a transformational leader in the change process. The leader needs integrity,

courage, a sense of purpose and excellent social skills. Figure 12.6 also illustrates the social nature of leadership in the sense that leaders influence the beliefs, attitudes and behaviours of followers.



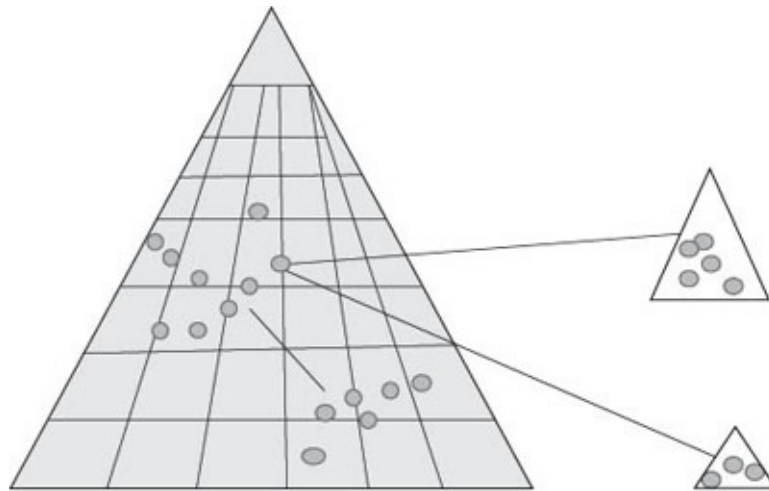
**Figure 12.6** Stages in the transformation process.

### 12.4.2.3 Intergroup leadership

When organisational change results from a takeover, merger or acquisition, change is often radical and requires adaptation to a new organisational structure, culture and values, as well as new relationships. This can be a painful process, especially for members of groups who have a perception, rightly so or imagined, of lesser status and inequality. Resistance to change, manifesting in either passive or aggressive behaviour, is a common phenomenon when change takes place and requires special strategies to deal with. The transformational leader plays an important role in reducing resistance by creating a shared vision and inspiring followers (Brown, 2011). However, in practice it often happens that individual groups within the organisation independently buy into a new vision, but still work in a fragmented and non-integrative manner. To overcome this barrier to effectiveness, intergroup leadership is of outmost importance.

In addition, in contemporary times, organisations are increasingly boundaryless, both internally and externally. Internally, new relationships are formed between groups across traditional boundaries of differentiating levels and departments. Externally, organisations collaborate and network with outside organisations and groups to expand their innovative and intellectual potential or deliver shared products or services. An example of a boundaryless organisation is a health care group, where doctors and nurses are collaboratively responsible for the healthcare of patients, and external groups, such as rehabilitation centres and specialised medical services, are contracted in to provide auxiliary services. Each group has its own identity with own norms, values and culture, which become barriers to the effective delivery of services to patients. Trying to create a common enemy normally induces strong resistance, as each group tries to protect the group's common identity.

Figure 12.7 illustrates a boundaryless organisation, characterised by the crossing of traditional internal and external boundaries to create new coalitions.



**Figure 12.7** The boundaryless organisation.

Hogg, Knippenberg and Rast (2012) describe a theory of intergroup leadership, based on social identity and intergroup relations, which entails collaborative performance across group and organisational boundaries. This is done by constructing an intergroup relational identity, an identity that is defined by the type of relationship the groups have with each other, and not shared characteristics or a shared group identity. These authors reason that creating an overarching common identity for two or more groups is often not possible or realistic because of self and social identities firmly established within the primary group which results in groups focusing on their self-interest and competing with each other. *Intergroup relational identity*, on the other hand, implies self-definition (self-identity) in terms of one's group membership (group identity) that incorporates the group's relationship with another group (intergroup relational identity) as part of the group's identity rather than as a superordinate collective identity or identity that do not reflect both groups. This is especially necessary when the individual groups have a strong identity and when the groups do not have equal power. The leader engages in boundary spanning leadership, combining leadership coalition across the different groups, emphasising the groups' collaborative relationship as well as the value that each group adds to the groups' collaborative relationship. The result is that groups can maintain their own distinctiveness, not feel threatened by a leader that sides with one or the other group and therefore not engage in various defense mechanisms to preserve the group's identity.

## 12.5 TRANSACTIONAL VERSUS TRANSFORMATIONAL LEADERSHIP

A transactional leader guides his/her followers, or motivates them in the direction of established goals by *clarifying role and task requirements*, whereas a transformational leader provides individualised consideration and intellectual stimulation (Robbins and Judge, 2009).

There are noticeable differences in the characteristics of transactional and transformational leaders. These differences are presented in Table 12.1.

**Table 12.1** Transactional versus transformational leadership

The transactional leader:	The transformational leader:
<ul style="list-style-type: none"><li>• gives contingent rewards (exchanges rewards for effort or good performance, and recognises accomplishments)</li></ul>	<ul style="list-style-type: none"><li>• uses charisma (provides vision and a sense of mission, instils pride, and gains respect and trust)</li></ul>
<ul style="list-style-type: none"><li>• uses active management by exception (watches and searches for deviations from rules and standards, then takes corrective measures or action)</li></ul>	<ul style="list-style-type: none"><li>• is inspirational (communicates high expectations, uses symbols to focus efforts, expresses important purposes in simple ways)</li></ul>
<ul style="list-style-type: none"><li>• uses passive management by exception (intervenes if standards are not met)</li></ul>	<ul style="list-style-type: none"><li>• is intellectually stimulating (promotes intelligence, rationality and careful problem-solving)</li></ul>
<ul style="list-style-type: none"><li>• is <i>laissez-faire</i> (abdicates responsibility and avoids making decisions).</li></ul>	<ul style="list-style-type: none"><li>• gives individualised consideration (gives personal attention, treats each employee individually, and coaches and advises employees).</li></ul>

A *transactional leader* follows a contingent reward system, whereby rewards are exchanged for effort, rewards are promised for good performance, and accomplishments are recognised. The use of management by exception is another characteristic. In its active form, the leader watches or searches for deviations from rules and standards and then takes corrective action. In its passive form, the leader only intervenes if standards are not met. It may be that the transactional leader abdicates responsibilities and also avoids making decisions. This is known as “*laissez-faire* leadership” (Robbins and Judge, 2009).

*Transformational leadership*, in contrast, involves charisma, inspiration, intellectual stimulation and individualised consideration. By using charisma,

characterised by vision and a sense of mission, the leader instils pride and gains respect and trust. He/she also communicates high expectations, uses symbols to focus efforts, and expresses important purposes in simple ways, and is an inspiration to followers. Intellectual stimulation is used to promote intelligence, rationality and careful problem-solving. The transformational leader gives personal attention, treats each employee individually, and coaches and advises, thus giving individualised consideration to employees.

Transformational leadership is more than mere charisma, and is built on transactional leadership to produce levels of effort and performance in subordinates that go beyond what would be achieved with a transactional approach only (Robbins and Judge, 2009).

## 12.6 LEADERSHIP AND MANAGEMENT

In most textbooks on leadership, a distinction between leadership and management is made. This distinction is purely for theoretical purposes. In practice, in a competitive environment, managers are expected to be proactive leaders who inspire “followers” to contribute to the success of the organisation (Fleming, 2011). Leadership and management are interrelated concepts. In the modern boundaryless organisation with flatter organisational structures and multiple internal and external networks, all employees, from the CEO to the frontline officer, need to utilise both leadership and management behaviours.

However, it is possible to distinguish between the typical management behaviours and typical leadership behaviours used by organisational members in attaining organisational goals.

As already discussed, leadership is the ability to influence people in order to achieve goals. Leaders draw on their emotional intelligence and interpersonal skills to influence the feelings, attitudes and behaviours of followers. In comparison, the task of a manager is more defined. *Managers* plan, organise and control the resources in the organisation through decision-making. Martin (2005) describes management in terms of three functions:

- *Direction:* Managers determine the organisational objectives and work out a plan of action or strategy to achieve these objectives. This is done for every sub-unit in the organisation and requires planning, decision-making and organisation.
- *Resources:* Managers provide the resources needed to achieve organisational goals. These include capital, organisational structure, job design, technology,

procedures, systems and skilled people. Once again, planning, decision-making, organisation and control are required.

- *People:* Every person in the organisation is contracted to achieve organisational goals. Managers achieve goals through the efforts of people, and have to manage people rather than the operational process.

Although many managers enjoy positions of leadership, there is a difference between management and leadership. The main difference is that a manager holds a formal position of authority within the hierarchy of the organisation, whereas a leader (who also holds authority) gets results without force and does not necessarily occupy a formal position of authority in the organisation (Robbins and Judge, 2009).

Leadership involves more than having authority and power. In order to explain the differences between a leader and a manager, crucial aspects can be divided into categories (Robbins and Judge, 2009) as presented in Table 12.2.

**Table 12.2** Leadership versus management

	Management	Leadership
<b>Goals</b>	<ul style="list-style-type: none"> <li>• Impersonal (if not passive) attitude towards goals</li> </ul>	<ul style="list-style-type: none"> <li>• Personal and active attitude towards goals</li> </ul>
<b>View regarding work</b>	<ul style="list-style-type: none"> <li>• Views work as an enabling process involving some combination of people and ideas interacting to establish strategies and make decisions</li> </ul>	<ul style="list-style-type: none"> <li>• Views work from high-risk positions</li> <li>• Often temperamentally disposed to seek out risk and danger, especially when opportunity and reward appear high</li> </ul>
<b>People</b>	<ul style="list-style-type: none"> <li>• Prefers to work with people</li> <li>• Avoids solitary activity as it makes him/her anxious</li> <li>• Relates to people according to the role they play in a sequence of events or in a decision-making process</li> </ul>	<ul style="list-style-type: none"> <li>• Concerned with ideas</li> <li>• Relates to people in more intuitive and emphatic ways</li> </ul>
<b>In general</b>	<ul style="list-style-type: none"> <li>• To cope with complexity, brings out order and consistency by drawing up formal plans, designing rigid organisational structures, and monitoring results against plans</li> </ul>	<ul style="list-style-type: none"> <li>• To cope with change, establishes direction by developing a vision of the future, and aligns people by communicating this vision and inspiring them to overcome hurdles</li> </ul>

These differences do not imply that a manager cannot be a leader. A leader can emerge from within a group or be formally appointed to lead a group (Robbins

and Judge, 2009). What is important to remember, however, is that good managers are not necessarily good leaders. The ideal would be to have an individual who is both a good leader and a good manager.

Managerial and leadership potential can be measured by means of assessment centres. An *assessment centre* is not a particular place or method, but a process. It is a meaningful, standardised procedure using multiple techniques such as situational exercises and task simulations, like business games, discussion groups, reports and presentations.

## 12.7 CONTEMPORARY LEADERSHIP ISSUES

The leaders of today are visionary and embrace change. Leaders of today also espouse and model fundamental values of honesty, integrity, participation, quality-orientation and customer-orientation.

Neera, Anjanee and Shoma (2010) perceive a new trend in the study of leadership, namely leadership that focuses on the organisational culture. Organisational culture refers to the shared values, beliefs and assumptions in an organisation that have a subtle effect on the behaviour, feelings, “language” and thinking in an organisation. Organisations that prove to be successful are those that are able to continuously reinvent themselves to adjust to the demands of the external environment. Leaders of these organisations act as change agents who consciously and purposefully influence the culture and values of the organisation so that it will be aligned with the organisational vision and strategy. These types of culture are also characterised by more flexibility and employee empowerment. Employee empowerment implies providing employees with the capacity (skills, knowledge and ability) and capability (opportunity, authority and autonomy) to constructively contribute to the organisation.

Another contemporary approach to understanding leadership is to perceive leaders not as individuals in charge of others, but as members of a *community of practice*. A community of practice is an informal group or social network consisting of people who engage with each other about a shared concern, common problem or passion and who, through sharing expertise, develop *tacit knowledge* (Mankin, 2009). In this context, leadership is a social process that happens with groups of people who are engaged in an activity together. Leadership is seen as the process of coordinating efforts and moving together as a group. This is a departure from focusing on leadership characteristics, authority, motivation and followership. This approach is more closely aligned to

self-leadership, which is leadership within the follower that elevates the person to an optimal participant in a group.

The three main developments in the contemporary world that will define leadership in the future, without forgetting the leadership lessons learned in the past, is globalisation, liberalisation and informational technology. Leaders will continuously be challenged in terms of how they deal with change, diversity, virtual networks, organisational culture (especially in a boundaryless world), values, communication, community awareness and corporate citizenship (Neera, Anjanee and Shoma, 2010).

In addition, the following questions are currently being asked about leadership:

- “Are women better leaders than men?” Research has indicated that women are more relationship-oriented, whilst men are more task-oriented. Women use a more participative approach than men. This discourse around women in leadership inevitably demonstrates stereotypical views, and perhaps the conversation should focus on the ideal mix of feminine and masculine leadership behaviours required for the success of a specific organisation. There are also still questions around the lack of women in top leadership positions and whether this is due to external or self-imposed restrictions.
- “Are leaders necessary?” Nielsen (2004) advocates the creation of a peer-based organisation rather than a hierarchical organisation with strong leadership. In a peer-based organisation, everybody, from the CEO to the frontline operator, is perceived as equal when it comes to sharing information and participating in decision-making.
- “Is current leadership theory applicable to the South African situation?” Considering the challenges facing South Africa’s organisations and its work force, are the leadership approaches discussed in this chapter helpful in finding ways to make South African organisations more competitive?
- “To what extent can Eastern philosophy provide directions for leadership?” Gupta (2011) supports an “ambicultural” approach of business leadership that combines Western transactional and Eastern relational perspectives and reasons that such an approach can overcome the limitations of the respective approaches.
- “Are a few individuals destined to become leaders or can everybody be a leader, at the same time and collectively?” Raelin (2003) believes that a “leaderful” organisation can be created by developing concurrent, collective, collaborative and compassionate leadership. The above-mentioned

perspective on leadership and communities of practice also advocate broad-based leadership.

The answers to these questions are still under debate and will eventually, based on scientific research and discussion, contribute to the development of new schools of thought on leadership.

## 12.8 ENTREPRENEURIAL BEHAVIOUR

Think of well-known entrepreneurs such as Steve Jobs, Oprah Winfrey, Richard Branson, Mark Shuttleworth, Ndaba Ntsele, as well as many other entrepreneurs that do not make the headlines. Are entrepreneurs leaders? And if they are leaders, how does their behaviour differ from those of managers and other leaders?

Entrepreneurship is often equated with small-business ownership. However, Kuratko and Hodgetts (2007) emphasise that not all small-business owners should be viewed as entrepreneurs. Entrepreneurship is characterised by innovation, profitability and growth. Small-business owners who start a business by copying what similar businesses are doing, without being innovative, can hardly be considered as entrepreneurial. *Entrepreneurship* is associated with innovation and creativity, identifying and seeking opportunities, taking risks and persevering. It is about dreaming, and turning dreams into reality.

Figg (2005) defines an entrepreneur as a person who identifies an opportunity and takes calculated risks with limited resources to achieve outcomes that are beneficial to all concerned. Co, Groenewald, Mitchell, Nayager, Van Zyl and Visser (2006) describe an entrepreneur as a person who takes risks in developing a new good or service, by starting, managing and building a business, and in the process creating wealth for him-/herself.

Though people normally associate entrepreneurship with an own business or venture, the entrepreneurial spirit can also be practised within an organisation, in profit and non-profit organisations and even in non-business ventures. When entrepreneurship occurs within an organisation or existing business structure, it is labelled *intrapreneurship*. This is important, because it means that employees in an organisation can act as entrepreneurs who renew and develop the organisation through innovative thinking and behaviour. To stay competitive, and to develop new, innovative products, more and more organisations are developing an intrapreneurial environment in which employees are given the freedom to run business units as small independent businesses (Hisrich, Peters

and Shepherd, 2005).

### 12.8.1 Characteristics of entrepreneurs

Kuratko and Hodgetts (2007, p.118) believe that entrepreneurship is a mindset that can be developed in individuals. They list the following characteristics associated with an entrepreneurial mindset:

- *Commitment, determination and perseverance*: Entrepreneurs are totally dedicated to the entrepreneurial venture and spend a great deal of time and effort in making it succeed.
- *Drive to achieve*: High achievers set challenging goals, take moderate risks and constantly seek feedback on their progress. McClelland, a motivational theorist, concluded that the need for achievement (N-Ach) leads to entrepreneurial behaviour (Hisrich et al., 2005).
- *Opportunity orientation*: Entrepreneurs focus on the opportunity and how to explore it rather than on resources, structure and strategy.
- *Initiative and responsibility*: Entrepreneurs are action-oriented and involved.
- *Persistent and active problem-solving*: Entrepreneurs do not give up; they find ways to attain their goals. They overcome obstacles through innovative thinking.
- *Seeking feedback*: Entrepreneurs seek feedback as a measure of their progress. They learn from mistakes and do things differently when a course of action did not deliver the desired results.
- *Internal locus of control*: Entrepreneurs believe they can influence the outcome of a situation and are therefore more inclined to take personal responsibility. This characteristic is also evident in successful managers (Hisrich et al., 2005).
- *Tolerance for ambiguity*: Successful entrepreneurs are not focused on job security and retirement, but enjoy constant changes as opportunities to explore. They are willing to take financial, social and psychological risks in order to succeed.
- *Integrity and reliability*: These factors are seen as crucial to building constructive relationships with customers, partners, creditors and suppliers.
- *Tolerance for failure*: Entrepreneurs perceive failure as a natural phenomenon and learning opportunity.
- *High level of energy*: Entrepreneurs are faced with extraordinary workloads and stressful demands, but counteract these by engaging in a healthy lifestyle and an optimistic outlook.

- *Creativity*: Innovativeness is perceived as a central characteristic of entrepreneurial behaviour and a characteristic that can be learned.
- *Vision*: Entrepreneurs have a clear vision of what they can become, and they use this as a driving force during difficult times.
- *Self-confidence and optimism*: Entrepreneurs exhibit high levels of confidence, even during difficult times. Their confidence inspires others and creates optimism.
- *Independence*: Entrepreneurs have a need to be independent. This independence stems from a frustration with bureaucracy and a need to make a difference. Entrepreneurs want to do things their own way and therefore do not like working for someone else.
- *Team-building*: Most entrepreneurs have highly skilled and motivated teams that enable business growth and development. They involve many people inside and outside the organisation in their pursuit of opportunity.

Arthur and Hisrich (2011) conducted a study of people in different eras that were considered entrepreneurial, starting with Confucius (550 BC) and ending with Bill Gates (1975) and Peter Jackson (1980), with the aim of determining what their most common characteristics were. Traits most frequently identified were being a visionary, having persistence and recognising opportunities and needs. Other traits included building a team, being a risk-taker, having passion for the idea and solving problems.

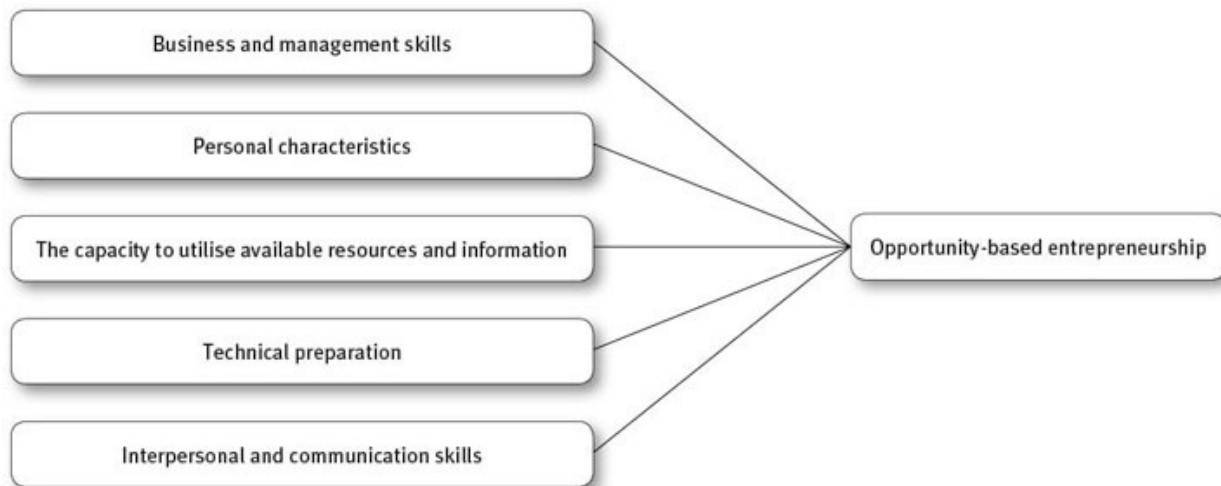
Figg (2005) identified five variables that explain opportunity-based entrepreneurial behaviour. He defines opportunity-based entrepreneurs as people who identify and take advantage of business opportunities owing to the potential of the situation and not because they believe it is their only choice, or only career option. The variables identified by Figg are presented in Figure 12.8.

In terms of Figure 12.8, it is important to consider the following points:

- *Business and management skills* include administration, marketing, financial management, general management and accounting skills.
- *Personal characteristics* include self-motivation, initiative, calculated risk-taking, goal-setting, intrinsic motivation, persistence, adaptability and value-orientation.
- *The capacity to utilise available resources and information* refers to having knowledge of resources, support structures, regulations, tax requirements and tender policies and procedures.
- *Technical preparation* implies that entrepreneurs acquire skills and knowledge related to the business, as well as a passion for the business. It also

includes acquiring the necessary information-technology skills.

- *Interpersonal and communication skills* are important for identifying and responding to customer needs.



**Figure 12.8** Variables associated with opportunity-based entrepreneurial behaviour.

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It is evident that being an entrepreneur requires more than just luck. Entrepreneurs are visionary, hardworking and creative. They ensure they acquire the necessary information and they stay at the forefront of technology in their field.

### 12.8.2 The down side of entrepreneurship

Kuratko and Hodgetts (2007, p.118) give a balanced view of entrepreneurial behaviour by not only stating the positive characteristics of entrepreneurs, but also the negative risks associated with entrepreneurship, including:

- *Financial risk*: Entrepreneurs often risk their savings, house, property and salary to start a new business, and are thus exposed to personal bankruptcy.
- *Career risk*: Entrepreneurs risk the chance to return to their old jobs or secure a new job should their venture not succeed.
- *Family and social risk*: Entrepreneurs spend much time and energy on their ventures at the expense of family and social time. In the long run, this could be harmful to the family as well as the entrepreneur.
- *Psychic risk*: Responsibility, constantly overworking and financial challenges may have negative consequences for the entrepreneur's well-being.

Other sources of stress include loneliness, a situation of “all work and no play”, people problems, and an overarching need to achieve.

Entrepreneurs could utilise various role models and support systems to reduce the probability and impact of these risks. The entrepreneur could ask an established entrepreneur to serve as a role model to him/her during and after the launch of a new venture. The role model could provide business-related information, such as how to obtain financing, structure the business, and market the product, and also could expose the entrepreneur to a social network of people that could assist with moral and professional support.

The entrepreneur should also maintain a moral-support network consisting of family and friends, who could provide encouragement during difficult times.

Lastly, successful entrepreneurs seek the advice and counsel from a professional-support network. This includes mentors, business associates (such as suppliers), trade associations and personal affiliations (Hisrich et al., 2005, p.68). In this respect, an I-O psychologist can play a valuable role by helping the entrepreneur structure his *her work and life, deal with stress, and get clarity regarding what heshe* wants to achieve.

### **12.8.3 Intrapreneurial culture and leadership in organisations**

Noticing the success that entrepreneurs achieve with their approach to business, many organisations are trying to establish an intrapreneurial culture of creativity, innovation and renewal in the organisation. Whilst typical corporate culture emphasises adherence to rules, rational decision-making and conservatism, an intrapreneurial culture endorses risk-taking, creativity, flexibility, independence and ownership. In an intrapreneurial culture, vision, goals, action plans, rewards for actions taken, experimentation, responsibility and ownership result in the identification and exploitation of new opportunities and ventures. Such an organisation also adopts a flatter organisational structure, with networking, teamwork, champions, sponsors and mentors. Intrapreneurs create a climate of trust, fun, engagement, enthusiasm and commitment. The box: “An example of an organisation with an intrapreneurial culture” tells an amazing story of an organisation that changed from being a bureaucracy to a truly participative organisation.

**An example of an organisation with an intrapreneurial climate**

One of the best examples of an organisation that has managed to create an intrapreneurial climate is the Semco Group, of São Paulo in Brazil. The CEO, Ricardo Semler, did away with typical corporate arrangements, such as time clocks, dress codes, security procedures, privileged office spaces and perks, including allotted parking bays. He then introduced factory committees to run the plants and introduced profit-sharing schemes. Most importantly, the work units can now invent and establish new businesses for themselves. They can use the company's premises and equipment, based on a profit-sharing arrangement with the organisation.

To read more about this remarkable company, view its website at: <http://www.semco.com.br/en/content.asp?content+3>.

Hisrich *et al.* (2005, p.48) identified the following characteristics of an intrapreneurial environment:

- The organisation is at the forefront of technological development in its field.
- Experimentation is encouraged.
- Failure is accepted as a natural consequence of experimentation.
- A no-boundary approach is followed.
- Resources are made available for new ventures.
- Cross-functional teamwork is encouraged.
- A long-term approach is adopted instead of seeking immediate returns.
- Organisational members choose to participate in new ventures.
- Appropriate reward systems, such as profit-sharing, are adopted.
- Sponsors and champions, with considerable influence to make changes, are involved.
- Top management is committed to an intrapreneurial environment.

*Intrapreneurs* are leaders in an organisation who identify opportunities and organise resources (including human resources) to achieve outcomes that are beneficial to all concerned. Hisrich *et al.* (2005) investigated *leadership characteristics and behaviours* that are essential in an intrapreneurial corporate environment. An intrapreneurial leader understands the internal and external corporate environment and is able to react creatively to it. He/she can identify opportunities and understands how the organisation can respond to them. The person must be visionary and sell the dream to others. These followers will become committed to the dream and overcome all obstacles in achieving the

dream. The intrapreneurial leader is flexible and can challenge conventional thinking and beliefs, for example, about organisational structures and relationships. He/she creates a team consisting of cross-functional people, and uses exceptional interpersonal skills to get support for this team from the organisation. He/she creates a climate of open communication and discussion, where team members feel the freedom to challenge or support an idea or solution. The intrapreneurial leader also creates a strong coalition of supporters, motivates team members and makes everyone in the team a hero. The last characteristic of the intrapreneurial leader is persistence. The person does not give up, but perseveres through difficult times to make the new venture successful.

Soliman (2011) wanted to find out whether transformational leaders require the same attributes in transforming an organisation from knowledge-based into learning organisation and then into innovative organisation, in other words, whether one person could fulfil all three these roles. He found that the three most critical factors for the three groups of transformational leaders are acceptance of risks, willingness to act proactively and ability of self-criticism. Other attributes also deemed important include the courage to switch off or terminate projects (preventing escalation of commitment), rewarding performing staff, the ability of appropriate timing to release products to the market, the ability to release products to the market within budget, and the ability to inspire and be a role model for other staff.

## **12.9 SUMMARY AND CONCLUSION**

“Leadership” refers to the process whereby one individual influences another individual or group towards the attainment of certain individual and organisational goals. Several factors, such as leaders’ values and situational variables, influence leaders’ behaviour. Owing to the nature of leadership, a leader possesses influence and power over others. Whilst power depends on whether a person can wield influence, influence refers to what the individual actually does that leads to changes in others.

Earlier studies on leadership focused on the attributes or traits of leaders. The debate around whether a leader is born or made has moved on to focus on the values or principles of leaders, and the characteristics of transformational and innovative leaders. The behavioural approach reminds leaders that both task and relationship behaviours contribute to effective leadership, and ideally these

behaviours should empower employees to work optimally toward goal attainment. The situational approach advocates sensitivity to environmental aspects and a flexible approach to leadership. Transformational leaders are visionary, affect the values and attitudes of followers and reflect aspects of inner and outer leadership. Organisations are becoming more boundaryless, which calls for a more refined approach to dealing with intergroup relationships. Contemporary leaders are acutely aware of the impact of culture on behaviour and strive to create cultures that are aligned with the organisational vision and strategy. Successful leaders are entrepreneurial in their approach and encourage intrapreneurial behaviour in the organisation.

## **12.10 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. In contemporary times, the trait approach focuses on:
  - a) visionary leadership
  - b) the competencies and principles of leaders
  - c) attributes such as intelligence and a need for power
  - d) achievement-oriented leadership styles
  - e) in-group and out-group relationships.
2. Which of the following assumptions relates best to Fiedler's theory?
  - a) Employee diversity is a determining factor in the best leadership style.
  - b) A high concern for both the employee and the task makes leaders effective.
  - c) Leaders can change situational variables to suit their leadership style.
  - d) Leaders can change their leadership style based on situational factors.
  - e) A directive style is best when managing the least-preferred co-worker.
3. Transformational leaders influence followers' behaviours by:
  - a) offering attractive rewards in exchange for effort
  - b) setting clear standards and monitoring performance
  - c) practicing management by exception
  - d) using charisma to get followers to do things which could sometimes be considered as unethical

- e) none of the above.
- 4. Contemporary leadership focuses on:
  - a) organisational culture
  - b) matching leadership style to a situation
  - c) initiating structure and consideration
  - d) leadership traits
  - e) none of the above.
- 5. Intergroup leadership is based on developing:
  - a) self-identify
  - b) a common group identity
  - c) a common intergroup identity
  - d) intergroup relational identity
  - e) social identity.

## **Answers to multiple-choice questions**

1= b; 2 = c; 3 = e; 4 = a; 5 = d

## **Issues for discussion and practice**

1. Why is leadership of critical importance in modern organisations?
2. A leader has a moderate consideration for initiating structure and consideration. How will this approach effect empowerment and satisfaction?
3. What are the main differences between Path-Goal Model and Fiedler's leadership theory? Should a manager ask you which of these two theories is best? How will you answer?
4. Is charismatic leadership and transformational leadership the same? Explain your answer.
5. Your organisation enters into a partnership with another organisation to produce packaging for a confectionary company. You are appointed as the manager of the two groups involved in the project. You have noticed that employees from the other company are very defensive and therefore not upfront with their questions, ideas or concerns. What could be the issues here, and how will you manage the groups in order to optimise their combined efforts?

## **CASE STUDY**

Rockadock is a 50-year-old mining quarry in Gauteng. The quarry mainly provides the provincial government and civil contractors with stone, gravel, rock and cement for the building of roads and infrastructure.

As the company grew over time, it became more bureaucratic. The plant manager, Peter Skepe, manages the plant with an iron hand. He has a few senior managers (referred to as his “lieutenants” by other staff) who ensure that his orders are carried out. All important decisions are discussed with these senior managers only. They will then communicate the necessary information to employees in lower levels in the organisation. The result is that there is little information sharing across units and departments, which results in duplication, ambiguity and inefficiencies. Skepe is demanding and expects a lot from his “lieutenants” as well as the rest of the staff. He is not open to alternative ideas and expects immediate responses and results.

Employees, especially those who are professional engineers, are not satisfied with the situation. The rigid and punitive environment also makes lower level employees feel tense and insecure. Absenteeism in the organisation is much higher than the industry average and labour turnover is also a problem. Employees who leave the company cite the harsh physical conditions and the “rude” management approach as main reasons for leaving.

New industry regulations related to safety, environmental and social issues necessitate the plant to relook its equipment, processes, safety and work methods. The crushing of stone creates a lot of dust and noise which must be controlled utilising special processes and equipment. There is also more pressure on the company to create a more positive customer experience and foster constructive relations with people who reside in the vicinity of the quarry, who apparently are affected by noise and dust.

- 
1. Considering the trait approach, would you consider Skepe a successful leader? Explain.
  2. How would Fiedler’s theory apply to the above situation?
  3. Employees are very diverse, ranging from professionals to

labourers. What guidelines are provided by the Path-Goal Model to deal with such a situation?

4. The company is subjected to a changing environment. Is Skepe suitable for leading this change?
5. An issue at the company is a lack of collaboration and coordination across units and departments. How can intergroup leadership be applied to improve the situation?

## **PART FOUR**

# **Personality in the work context**

The chapters in this part discuss personality and related factors, which with other psychological processes provide important inputs into the work system.

Personality represents the more or less consistent patterns of attributes and behaviours that more or less characterise a person across time and situations. The study of personality through the various personality theories and related research integrates many areas of study in the psychological disciplines. It encompasses human behaviour and functioning in the physical, cognitive, emotional, social, moral and spiritual domains. All these domains of behaviour are needed in the various life roles of child, adult, worker, partner, parent and societal member.

In the work context, employee competencies and occupational adjustment are primarily based on the direct and moderating effects of personality variables. The scientific and optimal management and development of human resources and diversity in organisations depends on the ability to assess and manage individual differences within and between employees' personal and personality attributes. The congruence of employee and organisational attributes is also important to organisational effectiveness, as is the collective "personality profile" that employees attribute to the organisation.

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# **Chapter** [The nature of personality and fundamental assumptions in personality study](#) **13**

## **Chapter 14**

[Personality in unconscious processes](#)

# Chapter 15

[Personality by learning](#)

## **Chapter 16**

[Personality recognised in traits](#)

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## **Chapter 18** [Personality through cognitive constructions](#)

## **CHAPTER 13**

# **The nature of personality and fundamental assumptions in personality study**

*Ziel Bergh*

## 13.1

[Introduction: General nature of personality study](#)

## 13.2

Influences on, criteria for effective personality study and controversies

## 13.3

## Approaches to personality study in the work context

**13.4**

Defining “personality” and related concepts

**13.5**

## Determinants of personality development

**13.6**

## Dimensions and domains of personality and human behaviour

**13.7**

Utilising personality research in the work context

**13.8**

## Summary and conclusion

**13.9**

## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- describe the nature of personality study
- explain criteria for effective personality study
- outline the various approaches or paradigms to explain personality
- discuss the cultural context of personality study
- construct and explain a definition of personality
- identify factors that influence personality development
- explain the dimensions and domains in personality study
- comment on controversies on the assumptions in personality study
- indicate the practical use of personality concepts in the work context
- explain approaches in work-related personality research.

### 13.1 INTRODUCTION: GENERAL NATURE OF PERSONALITY STUDY

One might wonder why few people look alike (except for some identical twins) or act similarly, why people react so differently in some similar circumstances, whilst in other situations, their reactions and beliefs are as expected, why some people are resilient in trying circumstances and others experience psychological adjustment and health problems in the same situations, why people are so similar in some respects, yet in most are unique, why some people are outgoing and others more reserved, why some are more anxious, sensitive or caring than others, and why people from western, Asian and African cultures are so different from each other in some regards.

Personality study or personology emphasises three *levels* of personality analysis. It is about *human nature*, *differences between individuals and between groups* and about *individual uniqueness* in people in contrast to general attributes in people. Personality study with its related theories, concepts, assumptions, research and assessment methodologies provides knowledge and frameworks for interpreting and dealing with human behaviour in various contexts, as pointed out in Chapter 1.

In a finer analysis the study of personality tries to answer questions about what personality is and how personality is structured (Maltby, Day and Macaskill, 2007; Cervone and Pervin, 2008). Why do people behave in certain ways? How does personality develop? Why does personality develop the way it does? How can personality be researched and assessed? In this regard personality is explained with regard to many aspects, for example, the biological, emotional, social, moral and spiritual.

Understanding and measuring personality attributes or individual differences and related behaviours, thoughts and feelings, are requirements in the effective management of the diverse nature of people in various contexts, especially the workplace (Ashton, 2007).

There are many applications of personality psychology across many theoretical and applied areas of psychology. (Furnham, 1992, 1997; De Fruyt and Salgado, 2003). Personality theory often provides the constructs, methods and applications used to explain, describe, predict and influence human behaviour in various life roles (for example, in work and career performance). In I-O Psychology and human resources or people management practices, competency models for personnel selection, promotion, training and performance appraisal are based on various aspects of personality, especially individual differences. These include knowledge, abilities, skills and other attributes necessary for successful occupational performance. As a result of recent work-related personality research, meta-analysis of previous research, and newer models on personality attributes (such as the Five-Factor Model), the usefulness of personality concepts and personality assessments in the work context is increasingly recognised (Barrick and Mount, 1991; Furnham, 1992, 1997; Schneider and Hough, 1995; Hough and Schneider, 1996; Murphy, 1996; Hough, 1997; Barrick and Ryan, 2003). For example, De Fruyt and Salgado (2003) concluded that the field of personality study has, with great success, exported its knowledge, insights and developments to many practice areas, including the work context and organisations. This is in contrast to earlier findings (Guion and Gottier, 1965; Sechrest, 1972; Revelle, 1995), which assert that personality study had little identity and was poor in theory, research and usefulness in predicting human behaviour.

In the midst of the many changes in modern life, which influence workplace interactions, understanding differences and similarities between individuals and groups forms the basis of managing conflict and diversity. The changing nature of work might increasingly necessitate the use of personality assessment, as

work competencies will be based not only on technical aspects, but increasingly on personality traits (such as interpersonal and communication skills, self-control, self-efficacy, initiative, autonomy, responsibility, emotional stability, personal resilience and integrity). A more positive approach in the assessment and facilitation of internal personal dispositions will also contribute to developing optimal functioning and well-being in employees and organisations (Snyder and Lopez, 2007). The theory and applications of personality and individual differences represent important competencies and areas of work for psychologists.

The *aim* of this chapter is to create a scientific understanding of personality study and work-related personality research, summarising various approaches to and determinants of personality, and explaining dimensions and assumptions according to which personality can be studied and researched. This chapter then serves as a building block for studying the other chapters on personality-related topics in this book. An added objective will be achieved if the student can relate assumptions and concepts of personality study to his/her own life.

## **13.2 INFLUENCES ON, CRITERIA FOR EFFECTIVE PERSONALITY STUDY AND CONTROVERSIES**

There are various thinking frameworks to analyse personality, which on the one hand gives the user of personality knowledge many ways to deal with the assessment, research and explanation of human nature and personality. On the other hand this also challenges the psychologist to really reflect on the value and meaning of the different explanations for personality when utilised in research, assessment and other applications.

### **13.2.1 Influences on personality study**

In the psychological sciences, thinking and practices were, and are still, strongly influenced by thinking from various disciplines, but most markedly so by the *psychological schools of thought* and their related theories and methodologies. Remember, a school of thought is an intellectual movement whose adherents more or less share the same ideology. In psychology this includes assumptions about human nature and how to study the human psyche. The psychological schools of thought and the related personality theories are *paradigms* which are ways of thinking about the human psyche (Luthans, 2008; Bergh, 2011). The

various personality theories provide frameworks or sets of principles to explain and integrate assumptions and research findings with regard to personality (Schultz and Schultz, 2009).

However, how one thinks about and behaves towards people in their various environments will also be determined by one's own "personal theories" and perceptions, experiences and circumstances. In this regard, many factors influenced the emergence of different schools of thought in psychology and their relevant personality theories. Some of these determinants are events in the history of humankind, events in theorists' own lives, the emergence of the scientific method as opposed to philosophical speculation, and the arrival of the computer age and information-processing technologies. In the language of cognitive and constructionist ideas, the various approaches to personality represent the subjective, cognitive and social themes and constructions of designated theorists and researchers, and how they interpret human behaviour and the realities of life.

In South Africa too, sociopolitical and -economic changes, globalisation and cross-cultural contact are encouraging social scientists to be critical and reflect on their theories, concepts and methodologies in explaining, assessing and managing human behaviour (Hook et al., 2002; Hook et al., 2004). This is visible in theorising and research on work-related issues, for example social interactions, cross-cultural research, organisational restructuring, management philosophy and strategies, leadership and ways of managing and practising business (Avolio, 1995; Boon, 1996; Broodryk, 2005; Pietersen, 2005).

The many influences and various thinking frameworks have contributed to the fact that *not one generally accepted approach exists* on how to study personality or what personality in all its manifestations is. This lack of integration can be criticised, however, in that the richness of various theories, assumptions, concepts and methods provides for the creative understanding of the nuances of human behaviour, as well as different ways to intervene with regard to individual differences. Specific theories and methods may be more suited than others for assessing, describing or explaining personality and behaviour in specific situations.

### **13.2.2 Criteria for effective personality theories**

Questions are often asked about the efficacy of personality theories and their assumptions in explaining personality adequately. Authors assert that *an effective theory of personality* needs to have a systematic and logical framework

with complete, clear and usable concepts. These concepts must be measurable and tested in order to establish a scientific base of knowledge from which to explain personality, predict future behaviours and allow for application. The following criteria or standards are given against which personality theories and concepts can be compared and evaluated (Hall and Lindzey, 1957; Cervone and Pervin, 2008; Larsen and Buss, 2008:

- *comprehensiveness*: The theory needs to be capable of explaining the many significant facets of human behaviour in a clear and specific manner.
- *parsimony: simplicity or complexity*: The theory needs to be understandable with fewer premises and assumptions rather than too many. The concepts need to be usable and not vague, confusing or too abstract. They should be well structured in presenting the various aspects of personality.
- *heuristic value*: Does the theory succeed in creating interest in new or fresh aspects of personality?
- *testability and empirical support*: Are concepts sufficiently concrete to be tested or too vague and difficult to define? The theory should be supported by research evidence, and should facilitate further research questions and hypotheses, thus contributing to the expansion of knowledge and the application of concepts and methods.
- *compatibility and integration across domains and levels*: A personality theory should recognise well-established facts in other theories and research, for example, if a theory explain personality development it should acknowledge established facts on genetic and cultural influences.

The various approaches to personality have caused controversy, but many approaches have agreement and commonalities in concepts and processes. It is often a case of the same phenomena and processes being explained by quite different concepts. For example, the concepts of traits, the ego (or self), responses and constructs all more or less indicate the consistent structure or characteristics in personality. Most approaches also agree on:

- personality as having some structure
- an enduring pattern or consistency in personality
- motivating forces in personality
- personality as a dynamic and developing phenomenon
- the aspect of uniqueness and similarities within and between personalities.

Different schools of thought and their related theories on personality and research hypothesise assumptions or presuppositions about human nature and

personality. Some of these are facts because they are verified by research, others may still be philosophical ideas or speculation.

There are a variety of issues that might cause controversy and on which personality theorists differ which the reader may spot as he/she reads this chapter and other chapters on personality (Schultz and Schultz, 2001).

Added to our consideration of these controversies, we must acknowledge the assertions of critical psychology too (Hook et al., 2002; Hook et al., 2004). Critical psychology asserts that psychological knowledge and practices are not necessarily universal truths and only represent interpretations from certain perspectives. If used unbiased and fairly, psychological knowledge can be used to promote people, but if used incorrectly will harm and enslave people.

### **Controversies on the assumptions in personality study**

- Some theorists assert that human behaviour can be fully explained and known, whilst others contend that knowledge of human personality and behaviour can never be complete.
- Personality is mostly explained as a Gestalt, whole or more than the sum of its separate parts and influenced by many determinants. Other approaches, such as behaviourism and dimensional or trait theories, also use elements of behaviour to do assessments and explain personality.
- Some theorists explain that determinants or influencing factors on personality are related to a dominant or deterministic factor such as genetics or environment, whilst others recognise the influence of multiple factors. The question of free will or whether people have self-control over influencing factors are often used to oppose the assumptions of determinism.
- The question of stability/consistency or growth and change in personality (person-situation debate) in people and across time and situations remains controversial. Many indications of consistency exist, however, it is also accepted that growth and change happens across a person's life cycle and that situations influence personality expression.
- The cause-and-effect issue in personality and psychological research is whether behaviour is caused by specific influences. Currently in psychology it is accepted that finding definite causes

of behaviour is not easily achieved, and may only occur in controlled experimental research, while in many other forms of research only relationships between behaviours are established.

- An ongoing controversy in psychology is the question of nature versus nurture, that is, the influence of hereditary or natural factors in human behaviour and/or the formative, learning influence of the various environmental factors to which the individual is exposed. An integrated and compromising view is that both factors have important roles. Many human characteristics are genetically determined (genotype), however, how these characteristics manifest or develop (the phenotype) will often be a result of, or at least co-determined by, environmental influences.
- In theory and assessment practices and in interventions, some theories take an *idiographic* view, asserting that people are unique or individual, rather than merely different. Accordingly, the individual and his/her experiences should be considered as unique, even if his/her responses seem the same as those of others in the same situations. Psychologists or practitioners holding this view often prefer not to use norms and standards or other statistical indices to compare individuals and groups. Instead they use their own clinical and subjective judgements or impressions of people. In contrast, the *nomothetic* approach emphasises universal or general laws in human behaviour. They use objective measures, such as psychometric tests, ratings and statistical norms and correlations between data to compare people and to point out individual differences and similarities in and between individuals and groups.
- Other issues which are also controversial or may relate to the above issues on personality and behaviour, are the emphasis on past or present events, pessimistic or optimistic ideas, objectivity or subjectivity of assumptions, and whether culture is formative in personality formation and expression.

### 13.3 APPROACHES TO PERSONALITY STUDY IN

## THE WORK CONTEXT

Personality theories are classified in various ways (Schultz and Schultz, 2009; Maltby et al., 2007; Yuichi, Cervone and Downey, 2007; Cervone and Pervin, 2008; Larsen and Buss, 2008). Some theories, for instance those of Allport and Kelly, are classified in more than one group. Hogan, Harkness and Lubinski (2000) classify personality theories in an applied section (denoting theories that were constructed in the process of helping people) and an academic tradition (denoting theories that came to light because of interest and importance, an emphasis which is similar to basic research). Larsen and Buss (2008) classify personality theories according to six domains, namely the dispositional, biological, intrapsychic, cognitive-experiential, social-cultural and adjustment domains, which more or less coincide with the classification used in this book.

Few theories in these classifications can be referred to as grand or mega theories on personality, a possible exclusion may be Freud's psychoanalytical theory. *Grand theories* are the more complete theories on personality, in which all levels and domains are covered, including the levels of human nature, individual and group differences and individual uniqueness. The dispositional, biological, intrapsychic, cognitive/experiential, social/cultural and adjustment domains are also included, as well as aspects of structure, motivation and development.

Others are *single-area theories*, covering only a specific aspect or various individual aspects in personality, such as motivation, development, cognitive development, communication, self-concept, self-efficacy, perception, affiliation, emotions, stress, values, intelligence and career choice (concepts which are regularly utilised in the various psychological disciplines and applied areas of psychology).

Recent approaches in books on personality can be described as metaperspectives, that is, they emphasise personality research and they analyse personality theories to indicate how personality concepts from various perspectives can be used in various situations (Furnham, 1992; Buss, 1995a; Cloninger, 1996; Flett, 2007; Maltby et al., 2007).

This chapter groups together the theories and perspectives in a way that is relevant both in general and in the work context. These theories and perspectives are mostly considered to be the classical theories in personality study and relate to the psychological schools of thought. (The groupings are discussed in sections 13.3.1 to 13.3.9.) There is a separate grouping of African and Asian

perspectives, not because these cannot be classified in the existing accepted classifications, but to create some understanding of quite remarkable differences in cultures, worldviews and underlying dynamics which are important for human interaction in diverse societies such as South Africa.

### **13.3.1 Psychodynamic or psychoanalytic theories (depth psychology)**

The psychodynamic or psychoanalytic perspective was founded by Sigmund Freud. It is a clinical approach that originated from studies and therapy with the mentally ill. As an example of depth psychology, it postulates that the structures and functioning of personality are by and large determined by *unconscious forces* and based on both primitive or irrational and sophisticated elements. People often have difficulties in controlling their own behaviour, and are mostly unaware of why they behave in certain ways, and that it is sometimes necessary to make people aware of the covert reasons for their behaviours. Another emphasis is on people's experience of conflict because of internal biological drives, unconscious motives, past events and the norms of society.

Depth psychology is represented by any psychological perspective that explains human behaviour according to unconscious and irrational forces. Depth psychology also assumes that since *early child development* is formative and more important than development in adult life, problems in childhood may have disruptive influences in adult life. How people's behaviour and attributes differ results from their formative childhood years (especially relationship experiences), and the way that conflict related to the unconscious are resolved. According to depth psychology, personality is also quite a stable phenomenon across time and situations. Measurement and research utilise techniques to tap into the unconscious in human behaviour, thus depth psychology does not contribute much to knowledge regarding individual differences and objective psychometric measurement in psychology.

The main theories are those of the classical psychoanalysts Sigmund Freud and Carl Jung, neo-Freudians such as Melanie Klein, Sandor Ferenczi, Anna Freud and Otto Rank, ego-psychologists such as Erik Erikson, and the socially-oriented psychoanalysts, of whom Alfred Adler, Erich Fromm, Harry Stack Sullivan and Karen Horney are examples.

Although heavily influenced by Freud, most writers who came after him have a more positive view, and emphasise a stronger self-concept (people being more in control of their lives) and the influence of social factors. An important later

development is the so-called *Object Relations Theory* and Relational Theories which is about the development of more mature interpersonal relationships to solve possible problematic relationship behaviour laid down in the first few years of life which may impair relationships in love and work (Wade and Tavris, 2009; Kowalski and Westen, 2011). The *Relational Theories* hold that the need for relatedness is a central human need which will influence personality in the efforts to interact with other people.

In more recent times, psychoanalysis continues to interest academic and popular literature, and to influence psychological theory, research and applications. It is sometimes criticised for poor research evidence, poor testability of concepts and sexist ideas. However, Weiten (2011) cites research on psychodynamic ideas which verified that unconscious factors indeed influence behaviour, internal conflicts can cause psychological stress, early childhood experiences influence adult personality and behaviour and people utilise defence mechanisms to reduce the effects of negative emotions. In the work context psychodynamic theories are increasingly utilised, for example in understanding and influencing the dynamics in groups and organisations (Cervone and Pervin, 2008; Cilliers, 2000b; Cilliers and Koortzen, 1998, 2000).

### **13.3.2 Behaviourist or learning theories**

The main ideas of behaviourist theory (founded by John B. Watson), mostly in reaction to the structuralist ideas of conscious experience and psychoanalysis, is that personality is characterised by *acquired, observable behaviours* or responses, expectations and thoughts as learned or conditioned and rewarded in the various types of environments in which humans function. People's *environments and circumstances are dominant influences* on what they become, and might even override basic natural or genetic potentials.

Personality develops because certain behaviours occur and are rewarded more often than others, and this can happen continuously and over the life span. According to learning theories, people are continuously learning and situations may influence behaviour; therefore personality is not seen as stable across time and situations as other perspectives would perceive it to be. Instead individual differences between people are seen to depend on how they have learned and the type of environmental influences they have experienced. The later social and cognitive learning theories emphasise the fact that people can self-regulate, that is, human behaviour is not only a simple connection between a stimulus and a response, but people can rationally, or by thinking and making choices, influence

the learning process (Kowalski and Westen, 2011). Learning theories mostly depend on objective experimental and other observational techniques to assess and research human behaviour, and they contribute much to the field of individual differences and the development of psychometric assessment techniques in psychology.

Contributions to behaviourist theories have been made by Charles Darwin's ideas on evolution, research on conditioning by the Russian psychologist Ivan Pavlov (the forerunner of behaviourism), the work of John B. Watson, Edward Lee Thorndike, Clark L. Hull and Edward C. Tolman, the radical and objective behaviourism of Burrhus F. Skinner, the more subjective behaviourism of John Dollard and Neal Miller; and the cognitive-learning approaches of Albert Bandura, Walter Mischel and Julian Rotter (Schultz and Schultz, 2009; Weiten, 2011).

In the work context, behaviourist ideas and concepts, such as self-efficacy, are utilised in practices such as the training and motivation of employees.



**Figure 13.1** Personality is also influenced by learning from important others.

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### 13.3.3 Humanistic, phenomenological and existential approaches

Humanistic perspectives, which also involve ideas from phenomenological and existential approaches, have a more optimistic and person-oriented approach in their emphasis on human behaviour as opposed to behaviourism and psychoanalysis, which is accused of dehumanising the person. According to the humanistic approach, human personality is best understood by *people's unique qualities, such as their freedom and potential for personal growth*. It is important to consider people's *subjective existence in, and unique experiences of, reality*, and the striving towards self-actualisation and finding meaning in life.

The person is recognised as an active, unique, rational and free being and not necessarily controlled by unconscious motives and environmental factors (Weiten, 2011). The development of personality and self-concepts happens over the life span, and as a result of people's universal and unique experiences and especially positive relations with other people. Individual differences are the result of every person's uniqueness, and therefore these theories utilise phenomenological and qualitative approaches to assessment and research. Approaches that can be classified here are the theories of Carl Rogers and Abraham Maslow, Victor Frankl's existentialism, and phenomenology by authors such as Karl Buhler and Rolo May, whilst even theorists such as Gordon Allport and George Kelly are sometimes classified here. These approaches have many applications in positive psychology, psychological research, assessment, management approaches and in counselling, therapy and other facilitation techniques. Criticisms are directed at the incompleteness of humanistic theory, over-optimism about human nature, vagueness of concepts and lack of empirical support (Weiten, 2011; Kowalski and Westen, 2011).

#### **13.3.4 Trait and type theories**

According to trait and type theories, human behaviour is characterised by distinguishable, *enduring and consistent attributes and patterns of behaviour* described in concepts such as dispositions, dimensions, traits, factors and types (Schultz and Schultz, 2009; Larsen and Buss, 2008). Traits are influenced by inherited biological factors. However, the interaction between people and environments in the expression of trait-based behaviour is also recognised. The names given to traits are either considered to be *internal causing attributes* or *hypothetical descriptive constructs* used by theorists, assessors, researchers and practitioners. From a genetic stance, traits are viewed as neuro-psychic structures that exist inside a person, motivate behaviour, are distinguishable in and between people, but environmental influences may have lesser formative impact on the trait-based behaviour (Loehlin, Williams and Horn, 1989). Traits can be measured by many psychometric instruments (for example, psychological tests for abilities, personality and particular personality orientations such as interests or values).

The trait theories classify personality into integrated trait and type models, such as the Three-Factor, Sixteen-Factor, and Five-Factor Models. These integrated trait models contributed to a holistic view of personality, as well as the application of personality across many domains of psychology, for example

in psychological assessment and the study of personality disorders. Trait psychology also contributed significantly to knowledge about the consistency of human behaviour in individuals and groups, and across time and situations. Arguably their most important contribution is in the *classification of and psychological measurement of individual differences* through the use of objective instruments, such as personality questionnaires.

Trait approaches are predominantly emphasised in workplace applications, especially in the area of assessment of work competencies for selection purposes and to determine the work-relatedness of personality traits. Many factor theories have been proposed and many factors identified in various spheres, such as abilities, motivational states, interpersonal behaviours, emotions, beliefs, goals, attitudes, interests, values, leadership, managerial behaviours, entrepreneurial traits and organisational-effectiveness criteria, the latter often an attempt to give work organisations personality-type characteristics. Important theorists are: Gordon Allport, Raymond Cattell, Hans Eysenck, Jerry Wiggins, Lewis Goldberg, Paul Costa, Robert McCrae, L.M. Hough and Walter Mischel. The Five-Factor Model is arguably the most integrative trait approach on personality and possibly a metaperspective (a perspective that explains many areas of psychological functioning according to trait concepts).

In positive psychology, many positive psychological concepts are also viewed as internal personality dispositions or traits (e.g. positivism, self-efficacy) that energise resources in people to stay healthy, be resilient and to develop optimally.

Trait psychology contributes much to the classification and assessment of individual differences and empirical findings on the consistency of personality, as well as personality's relatedness to other general and work-related human behaviours. However, it is also heavily criticised. Research is heavily based on self-report findings as determined by the contents of specific types of items in questionnaires. Trait descriptions used by researchers and practitioners may be more or less the same as trait descriptions of laymen. Cross-cultural research thus far does not always confirm the consistency of traits in people and across various cultures and groups. Traits are descriptive only and do not explain much about the why and how or underlying dynamics of personality and behaviour (Larsen and Buss, 2008; Kowalski and Westen, 2011).

However, despite some opposition to trait psychology, we believe that dimensional or trait psychology should be recognised as a separate psychological paradigm together with other schools of thought, even if such recognition is

largely coupled to its contributions to research (science) and its many applications (practice).

### 13.3.5 Cognitive and social-cognitive theories

Together with biological/evolutionary approaches and positive psychology, the social-cognitive theories are some of the most recent approaches in personality study (Funder, 2001a; Weiten, 2011). These theories, rather than believing in instincts, defences or conflicts, share the behaviourist belief in learning: that personality and behaviour is shaped by the consequences of learning. However, heavily influenced by the early cognitive and behaviourist approaches, a more recent approach to personality is the so-called social-cognitive perspectives, important contributors being Albert Bandura and Walter Mischel (Bandura, 2001). The emphasis is on *self-regulation*, self-efficacy, expectation, prediction, perception, memory and cognitive processes and schemas, which are all ways of understanding and controlling the world, other people and one's own behaviours. People will act according to their acquired thinking or knowledge of the world and expectancies and predictions that things will happen or goals will be attained (Cervone and Pervin, 2008; Larsen and Buss, 2008; Morris and Maisto, 2010).

Personality will develop according to these self-created cognitive constructs in interaction with environmental and situational requirements. In this regard, Mark Baldwin (2005) uses the concept of *relational schemas*, which are self-images of relationships and interactions with other people, and even all the people whom a person might have or have had interactions with. Such representations of other people, such as aggressive, friendly, rebellious or overbearing, might be integrated into a person's self-image, and might influence behaviour and determine other relationships. Self-comparison might also form part of a person's decisions about whom he/she wants, ought or hopes to be. Failure of a person to be whom he/she wants to be might lead to feelings of anxiety and depression (Funder, 2001b). Social-cognitive theorists, such as Mischel, also emphasise that specific psychologically important situations have different influences on different individuals, and they emphasise the uniqueness of behaviour and are hesitant to recognise general patterns of behaviour (Bandura 2001).

The ideas of the social-cognitive theorists are used by positive psychology, and might be useful in conjunction with the learning and trait approaches. Like the behaviourists, the cognitive theorists also believe that personality might not be very consistent because people's cognitive constructs and situations change

and influence behaviour and personality expressions. Individual differences exist because people have different constructs. Assessors and researchers in this paradigm may utilise quantitative and qualitative measurements, and they have made important contributions to psychometric testing of cognitive processes, therapeutic approaches and ways to influence people's attitudes and behaviour. Organisations are often explained as information-processing systems with certain inputs which are processes to yield certain outputs or results.

Some cognitive psychological ideas originated in earlier behaviour and cognitive theories, such as the Gestalt ideas of Max Wertheimer, Kurt Koffka, Wolfgang Köhler, Fritz Heider and Kurt Lewin. With the emphasis nowadays on technology and information processing, the cognitive perspectives might be more relevant than they were in earlier days, with many contributors, including Neal Miller, Ulric Neisser, George Kelly, Jean Piaget, Walter Mischel and Nancy Cantor.

Like psychoanalysis, social-cognitive theories are also assessed as quite complete theories and contributed to the role of thought and memory in personality. Recently, cognitive science researchers started to explore the relationships between cognitive behaviour, emotion and unconscious aspects. The well-known concept of *emotional intelligence* also illustrates the relationship between cognitive, emotional and social aspects of personality which may influence human performance. However social-cognitive psychologists are criticised for over-emphasising the rational side of personality and people's self-control, whilst more or less ignoring the motivational, emotional and irrational aspects of personality (Kowalski and Westen, 2011).

### **13.3.6 Biological/evolutionary perspectives**

In people, as in animals, behaviour is at least strongly influenced by *genetic and neurological factors*, referred to as *heritability or the proportion of genetic influence compared to environmental influence* (Larsen and Buss, 2008; Kowalski and Westen, 2011). Biological and evolutionary perspectives study *behavioural genetics*, best illustrated by similarities and differences found in twin and adoption studies, as cited in Cervone and Pervin 2008; Maltby et al., 2007; Ashton, 2007; and Larsen and Buss, 2008. A prominent finding is that monozygotic twins are much more alike on various attributes than dizygotic twins even if the former were raised separately. Other biological processes and the evolutionary history of people adapting to change can also have strong influences on personality and how people behave in situations. With regard to

neurological and physiological determination, for example, it is known that particular sites in the brain are important for personality functioning. For instance, the frontal lobes are important for foresight and anticipation, and other parts for aggression and emotions (Buck, 1999). Particular hormones, such as testosterone, are important for sociability, positive emotions, aggression and sexuality, whilst the neurotransmitters are functional in the regulation of emotions (Dabbs, Strong and Milun, 1997; Dabbs, Alford and Fielden, 1998; Knutson et al., 1998). If these psychological attributes in people are genetically-based and are present in younger ages they may have implications for adult behaviours under certain circumstances (Kowalski and Westen, 2011). Future research in this area might focus on the possible prediction of how genetic predisposition can lead particular individuals under particular circumstances to turn out in particular ways, for example in terms of sexual orientation or divorce behaviour. In this regard too, the impact of non-shared and shared environmental factors in the expression of biologically-determined and biologically-influenced behaviours cannot be underestimated (Stoolmiller, 1999; Ashton, 2007). Much theory and research in the evolutionary approach has covered topics such as affiliation, sexual attraction, sexual jealousy and mating behaviours.

### **The evolutionary approach's assumptions about sexual attraction, sexual jealousy and mating behaviours**

One of the assumptions is that women might have stronger preferences for mating partners because, according to the so-called "Parental Investment Theory", women pass on their genes to fewer offspring. Males, in contrast, might express more sexual or partner jealousy because, according to the concept of parenthood probability, men cannot always be sure that offspring are theirs. However, much more accurate research is necessary to establish precisely the cause-and-effect relationships (Pervin, 1996; Eagly and Wood, 1999) as seen from a biological and evolutionary perspective.

However, under the influence of Darwin's work, people's personality traits and behaviour are also viewed as a function of transfer from generation to generation as a result of evolutionary, genetic and social processes. The assumption is that the biological nature of behaviour is common to all people and can be changed

by evolution (Pervin, 1996; Morris and Maisto, 2010). Through processes such as *cultural and social learning to adapt and to survive*, and for acceptance in terms of cultural norms and changing circumstances, changes in physical and psychosocial behavioural patterns are created. Individual differences exist, for example in temperaments, acquired through inheritance and social-survival behaviours and strategies. Personality is quite stable in people and across time, because of genetic influence and the influence of people's need for social interaction. The latter is illustrated in people's innate or inborn dependence and need for attachment and affiliation from birth. Other forms of behaviour studied show evolutionary adaptations across time such as altruism or helping behaviours, language, learning, sexual preferences, mate selection, parenting, violence and aggression and jealousy.

In this approach many contributions come from ancient times when Galen and Hippocrates, for example, associated personality and temperament with biological functioning and certain body fluids. Later William Sheldon and Ernst Kretchmer based personality descriptions on body types, whilst many trait psychologist (for example Hans Eysenck and Raymond Cattell) recognise traits as neuro-psychic structures. Current trait psychologists such as J.A. Gray, C. Robert Cloninger and Marvin Zuckerman have also executed important work in relating various personality and behavioural characteristics to human biology. Apart from personality psychologists, other researchers in *behaviour genetics* increasingly explore the relationship between genetic transmission and psychological attributes in people.

### **13.3.7 Psychosocial theories**

Ego, social-oriented and interpersonal theories include the theories of neo-Freudians Karen Horney, Erich Fromm, Alfred Adler, as well as Harry Stack Sullivan, Carl Rogers and Timothy Leary. These theorists stress the *self as a core dimension of personality and personality development*, and also the dominant role of *interpersonal relationships, social and cultural factors*, and the influence of other important people in the needs for relatedness and personality development. Some of these authors more or less agree on the fact that personality is best expressed within interpersonal situations (Sullivan, 1953). The importance of social behaviours is recognised in many theoretical and practice areas in psychology and I-O Psychology, for example leadership, personnel management, employee behaviour, organisational behaviour, social interactions, and many counselling and therapeutic strategies. Larsen and Buss

(2008) discuss the social approach in personality with regard to how personality influences people's attraction to others, evokes certain responses from other people and how people can be influenced or manipulated.

Almost all other approaches to personality study include explanations for the self-concept and the influence of social learning and environmental processes. Some of the social psychological assumptions which emphasise the uniqueness of each person as a social being are obtaining increasing importance and enjoying acceptance and good research support. For example, Adler's *individual psychology* and his emphasis on social factors are used in counselling and therapy (Schultz and Schultz, 2009). Adler's concepts of striving for superiority and creative powers and future goals has a positive cognitive emphasis in how people can shape their lives and overcome obstacles. Karen Horney's work on women psychology is considered to be an important contribution. Most of these theorists assessment methods are associated with psychoanalysis. However, many personality assessment techniques include factors that relate to the social nature of personality and related concepts such as self-concepts and interaction styles (Koole, Jager, Van den Berg, Vlek and Hofstee, 2001; Schultz, 2009).

### **13.3.8 Contextual approaches: Systemic and cultural perspectives**

*General systems theory* was developed by Ludwig von Bertalanffy (1950), who with others, including Gregory Bateson, created the idea of ecosystemic meaning (Jordaan and Jordaan, 1998). This emphasises the study of whole systems, unlike many other approaches that reduce understanding and meaning of systems and behaviour to certain elements only. Like the concept of Gestalt, a system can also be defined as consisting of more than the sum of its parts – in fact a system consists of its subsystems and their attributes and the relationships and interactions between these factors and attributes.

A systems approach in psychological disciplines is important in order to understand and consider the interactions and relationships amongst all possible factors that define, explain and influence the context of the functioning of a system, for example a person, family, work group, organisation or country and its surrounding environments. In this book, the term *context* will mostly imply establishing and exploring the meaning of behaviour, experiences, processes, events and other phenomena by considering all elements in the total picture. *Contextualisation* means that phenomena such as human behaviour and experiences can only be understood fully if the environments or influencing

factors within which they take place are considered.

Context embraces many aspects of human existence, each with its specific subcontexts, for example biological, psychological, emotional, interpersonal, economic, familial, work, spiritual or religious, group, ethnicity, community, country and many more. This approach suggests that people must be seen as whole persons, that human behaviour can be complex and that there is often more than what the senses observe on the surface or what a first impression would indicate. Some of the theories already mentioned (Adler, Jung, Rogers and Allport) also emphasise the whole person, but do not recognise contextual or systemic approaches. A contextual approach to personality in its theory, research and practices should therefore consider the whole person and all his/her attributes in relation to all influencing factors which include culture and where and how a person lives and function in the context of his/her various life roles. It must also recognise that feedback on their personality expressions which people obtain in their learning experiences has an important role in a person's functioning and growth.

In personality study there is no recognised systemic theory, though aspects of systemic assumptions can be indicated in some theories. In therapeutic and organisational psychology though, the implications of systems theory have long been utilised to understand the complex interactions between various subsystems. A number of theories (Allport, Erikson, Freud, Rogers) emphasise the whole person, various levels and all domains of personality, integration of genetic and environmental influences, continuous personality development across the life cycles and progressive stages of development from birth to old age across which personality form, as well as the fact that behaviour and personality is formed and maintained by its consequences – or feedback from various interactions. Often too, the importance of a multitude of factors are emphasised which relate to a systemic or contextual emphasis. In an interesting approach Shoda, Cervone and Downey (2007), proposed an approach to build a science of the individual and which emphasises the person or personality in context. According to Shoda *et al.* (2007), none of the important psychological theories on personality (psychoanalysis, behaviourism, the Five-Factor trait model and the cognitive approach) succeeded in building a science of the psychic life of the whole individual person. Often personality or the individual as person is explained and researched in isolation and away from the context in which people live. Shoda *et al.* (2007) interpret theory and research into a system that rather explains personality within certain contexts or situational

influences from the person's various environments. In this regard these authors argue that personality must be studied more in respect of its relationship with other psychological processes (such as neurological aspects, cognition and social aspects), the role of self-control through cognitive and behavioural competencies in relation to situational requirements, as well as the idiosyncratic or unique aspects in people.

In contemporary psychology, the *social context* of personality is also strongly emphasised by constructionist, social-constructionist perspectives, narrative psychology (Craig, 1995; Fosnot, 1996; Durrheim, 1997; Avis, Pauw and Van der Spuy, 1999) and in cultural and cross-cultural psychological perspectives. As a separate research domain within cross-cultural psychology, the indigenous psychological movement emphasises the understanding of people according to cultural context, which also means the indigenisation of, for example, Western psychological concepts and methodologies, and the creation of indigenous psychological concepts for specific cultural groups. Social constructionism and narrative psychology (part of postmodernism), might be viewed by some as an alternative theoretical perspective and approach to scientific inquiry, emphasising the social context of human behaviour and related knowledge (Avis, Pauw and Van der Spuy, 1999). Researchers in these traditions use more qualitative types of inquiry, such as discourse or narrative analysis (analysis of stories and themes in communication), and are more subjectively involved in the interpretation of obtained data in order to reflect the themes and influences of social interaction and social realities.

According to social constructionism, all human behaviour and the ideas about human behaviour (personality, self-concepts and behaviour problems), are part of social reality and people's interpretation of social realities – all of which results from human interaction (Gergen, 1985; Osbeck, 1993; Squire, 2000). In this respect, social constructionism's emphasis on social factors resembles that of other approaches, especially beliefs about social learning and cognitive perspectives that personality is made up of people's cognitive constructs, perceptions or interpretations of their world. For example, Squire (2000) reports on research concerning social or cultural constructions and representations of racism with regard to masculinity, gender domination and femininity. The meanings of individual and societies' social constructions are conveyed by people's discourse (the what and how of people's language and communication). In this regard, so-called "narrative psychology" focuses on analysing the "stories" people tell about themselves, others and the world, because people's

lives are made up of experiences that they relate to and talk about in unique ways (Howard, 1991; Callahan and Elliot, 1996). People have stories about all aspects of their lives, and each person's story might differ from that of the next person, even if events seem to be similar. Many stories and myths of individuals have generic themes, because people are part of and linked to social interactions in cultural, group and societal contexts. The contents (the what) and meaning (the how) of discourse and language used by individuals and communities about various topics in their lives reflect how they feel, think and probably would act or behave. In this sense, language and discourse are powerful determinants in shaping worldviews, individual personalities and related behaviours, as well as the sociopolitical order and status of groups and societies in general. This has important implications for the cultures of minority and disadvantaged groups because social constructs about them, as compared to their own perceptions, may be an important influence to determine their circumstances. Cervone and Pervin (2008), for example, refer to the social and political influences on the development of personality psychology (see also [Chapter 4](#)).



**Figure 13.2**      Personality and culture are reciprocal.

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The *cultural context* of personality is recognised by most approaches and is also explored in cultural and cross-cultural research in many subdisciplines of

psychology Larsen and Buss (2008). Culture is recognised to have a profound effect on a person's self-concept, personality formation and expression of related behaviours. Psychoanalysts relate cultural phenomena to people's conscious and unconscious needs and conflicts. Others see culture as patterns, sets of beliefs, values, rituals and institutions which will also influence personality, whilst others emphasise the mutual influence of personality and culture on each other (Wade and Tavris, 2009). In the latter, for example, because of global contact and diversity of various cultures in work places, personality researchers should consider the clash between cultures, for example, individualism in Western and collectivism in African and Asian cultures. In general and in an organisational context, *culture* is those collective norms, values, beliefs, ways of thinking, perceptions and behaviours (particularly those based on past events) that characterise the unique or distinctive and preferred ways in which people or communities share and do things, and which may influence personality and behaviour. Consider that various cultures will have different conceptions of what personality is, for example situated and expressed as an individual phenomenon, or formed and expressed in group or communal context. Larsen and Buss (2001) even consider aspects such as gender roles and its many behaviours in men and women to be different cultures because of the different rules and expectations which society prescribe or support for males and females during their development and as adults.

The boxes below on cultural influence introduce the important issues of:

- scientifically considering individual differences versus being prejudiced because of differences
- whether the research findings of Western psychology are universally true
- interpreting human behaviour in cultural context.

### **Personality and culture – mutually inclusive or separate, individualist or collectivist?**

Some psychologists view personality and culture as separate entities, and want to explain personality concepts from the perspective of culture influencing personality. In contrast, some cultural psychologists believe that *personality and culture are mutually inclusive* and “make each other up” (Markus, Kitayama and Heiman, quoted in Church, 2000:664). Cultural psychologists, such as Schweder and Sullivan (1993), believe that personality and

culture interpenetrate each other's identity and cannot be analysed into independent and dependent variables (that is, the one will necessarily influence what will happen with the other). Cultural psychologists also assert that the concept of personality is an expression of the more individualistic nature of Western culture, whilst in collectivist cultures (such as Africa and Asia), in which group orientations and culture are stronger determinants of social behaviour, personality is less of an individual expression. This might be why fewer integrated theories of personality have been postulated by Asian or African scientists, or why some Asian or African psychologists feel frustrated by the influence of Western psychology, with its individualistic emphasis (Hook et al., 2004).

### **ETHICAL READER: Science versus prejudice: the importance of interpreting human behaviour and research findings in cultural context**

Insensitivity to cultural influences, for example, about personality or self-concept, time perspectives, morality, work values, human relations and authority might still be a factor of *prejudice* in the human sciences and in human interaction. This still manifests in racial and gender discrimination in practices such as personnel assessment, selection, financial remuneration, job allocations, promotion and training. It is therefore important to consider alternative explanations for human behaviour, such as cross-cultural and indigenous psychology which involve specific ethnic and cultural groups, and also relevant and alternative research, assessment and intervention methods in human behaviour. It is important that psychologists and other social scientists understand the 'otherness or foreignness' of each culture, especially as far as minorities and disadvantaged groups within other cultures are concerned (Hook et al., 2004).

Cultural heritage and a critical attitude should not be used as a political, ideological or emotional excuse for the exclusion of any existing psychological idea or practice that best addresses individual differences and similarities within a particular context. It seems that

many psychological assumptions, concepts, processes and practices used in psychological disciplines, also with regard to personality psychology, can be used to explain personality across cultures (Kowalski and Westen, 2011). However, an emphasis on cultural stereotypes should not be allowed to perpetuate discrimination against any individual or group, especially in the global society of today, in which economics and technology cause increasing cross-cultural contact, or in those societies where culturally diverse peoples coexist. It is also essential to grasp the difference between considering and applying individual differences scientifically, fairly and unbiased, and being unscientific, prejudiced and discriminating in using psychological knowledge and methods. This is supported by the South African Employment Equity Act, No. 55 of 1998, which regulates that:

... no person may unfairly discriminate, directly or indirectly, against an employee, in any employment policy or practice, on one or more grounds, including race, gender, sex, pregnancy, marital status, family responsibility, ethnic or social origin, colour, culture, language and birth.

Other legislation and ethical guidelines in psychology also emphasise the necessity of fair psychological and human resource practices, which place *human rights* as a central issue in the theory and practices of psychology. This implies that any corrective action, such as affirmative action strategies or other policies and practices for empowering people, must also be based on principles of justice and equality.

The application of psychology in the work context, also in Africa, is often heavily based on American and European schools of thought (Hook et al., 2004). As yet, not many of these assumptions have been influenced by African or Asian cultures. Nobles (1991), Ho (1988), Squire (2000) and Hook et al. (2004) argue that psychologists too often use only Western models and standards in researching and explaining African and Asian people's behaviour, thus perpetuating the possible misunderstanding of other cultures, such as Black and Asian people. It is only in recent times that more knowledge of African psychology and personality has been

emphasised in order to differentiate African from Western and Asian thinking (Sow, 1980; Jones, 1991; Azibo, 1996; Steyn and Motshabi, 1996; Hook et al., 2004).

In terms of generic application, ecosystemic theory, for instance, makes the assumption that all aspects of a system are in some way related to each other. This assumption of oneness and interaction with nature, and between humans and systems, is also important in Asian and African cultures. The ideas of interactionism and transactionism in trait, behaviourist and cognitive theories also adequately explain the interconnectedness between people and their environments, as well as cultural aspects and their influence on personality. Some of the classic and known personality theories, not only adequately explain the individual as a person, but also in relation to other people, to the physical environment and to spiritual aspects such as religion. The latter, for instance, is addressed in the theories of Jung, Maslow and Allport. The notion of *ubuntu* (which indicates humaneness and relationships with others) in black cultures is arguably congruent with concepts in humanistic psychology, such as Rogerian theory, and concepts such as self, positive regard, empathy, transparency and acceptance, which relate to how people should interact or be treated. Similarly, processes such as personality development as seen in African psychology seem quite similar to Western views, for example the view that it is a lifelong integrative process that develops in stages.

The valuable truths on human behaviour as established by Western psychology need to be acknowledged. However, such knowledge and practices cannot be universally true unless they also consider viewpoints from other cultures, especially in countries where people of diverse cultures coexist. In fact, the cultures of minority and disadvantaged groups are often weakened in dominant cultures, for example by Western culture, or when individuals and groups are forced to accept new cultural values, which can bring about other problems (Hook et al., 2004). Globalisation and mixed societies, such as South Africa, might also cause individuals and groups to have weakened or mixed cultural perceptions.

Individual differences exist in the way in which each person's development is influenced, and by social interaction and the

discourse relevant in a family, group and society. Psychologists have the task of finding and understanding commonalities and uniqueness in and between cultures, from the point of view of existing psychological knowledge. It is time also that African theorists and researchers put more energy into establishing the foundational knowledge and practices that academics and applied psychologists need to explain the dynamics of personality from African, South African and other relevant perspectives. This is necessary because views on people and personality in Western, Asian and African cultures are influenced by basic epistemological and ontological points of departure (fundamental views about knowledge, science and people's existence in the world (see [chapter 2](#)). It is important, however, that we realise that Western, Asian (Eastern) and African culture and psychology are only umbrella concepts to describe general trends. Each of these consists of many subcultures, influenced by many social factors (such as gender, ethnicity, race, politics, social roles, geography and traditions), which will cause differences in cultures and even in sub-groups such as families. It is, therefore, a sound principle to always interpret expressions of human behaviour relative to the specific cultural context in which individuals acquired such behaviours.

Culture, which may also include ethnicity, is a rich source of information on personality (Squire, 2000; Church, 2000; Pawlik and Rosenzweig, 2000; Berry, Poortinga, Segall and Dasen, 2002; Triandis and Suh, 2002). Combined with genetic factors, culture and ethnicity can explain uniqueness and similarities, as well as how different life roles (such as gender, work, marriage, parenting and citizenship) are expressed and executed by people through their personalities and behaviour (Larsen and Buss, 2001). Kowalski and Westen (2011) cites a body of research indicating personality differences across and between cultures, but also many similarities and consistencies in personality attributes and needs across culture and people. In this regard too, according to various theoretical perspectives and cross-cultural research, sufficient evidence exists to justify the perspective of an integrated cultural trait psychology (Church 2000; Murphy, 1996; Kagitcibasi, 2000; Barrick and Ryan, 2003; Wade and Tavris, 2009).

The following are examples of such evidence:

- heritability and cross-cultural comparability of personality traits
- consistency of personality structure, and of unique and general personality traits in people and across situations
- predictive validity of personality traits for relevant criteria across cultures.

Counter-arguments (Kanagawa, Cross and Markus (2001) from the cultural psychologists are that in personality research respondents from collectivist groups will always offer answers on assessment instruments that are different from the answers of respondents from individualist groups, for example the meaning allocated to concepts. Answers by respondents from collectivist groups will be less self-enhancing, place less emphasis on internal and individualistic traits, and place more emphasis on social roles, norms, relationships and contextual factors. Hill, Block and Buggie (2000) found differences with regard to physical and personal time perceptions between black Americans, black Africans and white Americans, but found that they did not differ with regard to perception of time duration.

### **Time perceptions**

The items below might give you a feeling of your time perspectives, in other words how you view:

- physical time (actual time as indicated on clocks and associated with daily activities)
- personal time
- time in general.

Your agreement or disagreement with the statements given below might indicate your time orientations.

1. I can change the rate at which and direction in which I pass through physical time.
2. For me, physical time passes continuously and inseparably.
3. Time is how I consciously and rationally perceive it.
4. I think physical time does exist. It is not fantasy or mind games.
5. I believe physical time is the same for people of all cultures.
6. I think that even if many things change, physical time cannot change.
7. I believe that the experience of time differs for people in different situations.

8. Time, for me, differs if experienced as past, present or future.
9. I think experiences of time are different for people of different cultures.
10.  
My experience of time differs, depending on my frame of mind, activities, and so on.
11.  
I like it more to know than not to know what time it is.
12.  
My assessment of how much time expires is a rational activity.
13.  
For me, time is associated with how important my past, present or future is.
14.  
Time is part of my personal identity.
15.  
I am always aware of how long or short time is.
16.  
When I am busy or doing interesting things I experience time as passing quickly.
17.  
I remember time as passing quickly when I have been busy or been doing enjoyable things.

Try comparing your perceptions with those of a person of a different culture.

Source: Developed from ideas by Hill, Block and Buggie (2000), and Thompson and Bunderson (2001)

### **13.3.9 African and Asian perspectives**

A separate discussion of these views does not mean that aspects of Asian and African psychology cannot be classified with other perspectives, but rather aims to illustrate the unique context of personality and behaviour that must be considered for any individual or group (Larsen and Buss 2008; Kowalski and Westen 2011).

In Western society, psychology derives from a philosophical and scientific history, which in contemporary psychology emphasises a positivist and

empirical paradigm of human behaviour. Western psychology is characterised as scientific, analytical and reductionist ideas, and tries to assess, analyse, control, change and predict human behaviour in its various environments. In contrast, Asian (Eastern) and African psychology originates from a metaphysical and spiritual (religious) tradition, resulting in a more intuitive and integrated discipline.

Asian psychology emphasises knowledge of the soul and freedom of the individual through self-realisation, especially through self-experience. In this process the emphasis is not so much on the individual, the self or the ego, but on the person or “personage” (Hsu, 1971; Roland, 1988) as an interpersonal being connected to his/her culture, society, family and spiritual values. Asian culture stresses the unity and mutual interaction of all things, and the intrinsically dynamic and changing nature of the cosmos or universe (Ho, 1988; Atwood and Maltin, 1991). Although African cultures share similarities, many different African subcultures exist, in both white traditions and black traditions. We believe that globalisation and acculturation have influenced black African cultures, to be in a state of transition and adjustment between Western, African and Eastern cultures.

According to Sow (1980) and Azibo (1996), it is possible to isolate an overall African school of thought or perspective that characterises African realities and values, and which reflects African views on life and people. Viljoen (1997:617) summarises this African view on people and the world as:

... founded on a holistic and anthropocentric ontology, whereby humans form an indivisible whole with the cosmos (and therefore a unity with God and nature), and whereby humans are the point of departure and the centre of the universe, from which everything is understood and explained.

In more specific terms, Nobles (1991:299) differentiates the African worldview and view of humankind from Western views, as shown in Table 13.1.

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**Table 13.1** African and Western views of the world and humankind

	African	Western
Ethos	Survival of the tribe Unity with nature	Survival of the best and fittest Controlling nature
Values and customs	Cooperation	Competition

values and customs	Cooperation Collective group responsibility Independence through cooperation	Competition Individual rights Independence and separateness
Psychological modalities	Group orientation Sameness/equality Commonality	Individuality Uniqueness Differences

Source: Adapted from Nobles (1991:299) and Meyer, Moore and Viljoen (1997:620)

It is obvious that these basic orientations facilitate differences in how people explain such things as nature, human behaviour, personality, self, management styles, work and time orientations, and how to solve conflict (Hook et al., 2004).

In some black Africans' perspective of time, the emphasis is more in terms of the past (history) and the present, than in terms of the future (Mbiti, 1989) – the future not being as important because it is seen as impossible to experience and therefore seen as not actually existent. In contrast, Western civilisation is very time-driven with the present and past being very important for future events. In many instances, time management according to Western norms, for purposes such as planning for present and future actions, might be a strange experience for African people, because in their view time is awaited and created by each person for his/her own needs (Mbiti, 1989). In terms of time these needs are especially directed at living in peace with ancestors (past) and fellow humans and in the community (present). The difference in time perception between cultures, but also other aspects such as attitudes towards work, leadership, doing business, management and other organisational and human-resources activities, should be part of managing diversity in work places because it will influence work interactions.

In African and Asian cultures, it seems as if psychology and personality cannot be separated from their worldviews, which are usually based on ancient and historical origins (Hook et al., 2004). There is less emphasis on the individual (and related concepts such as individuation, independence, self-efficacy, achievement, motivation, rationally defined evidence, the scientific method and autonomy). There is more emphasis on the *collectivistic, holistic and interconnected nature of things*. The individual is part of the community and personality or personhood is earned and finds meaning and is best expressed in ubuntu or social relationships with others and participation in and with the community and in corporate welfare. Culture and its spiritual values, its rituals and institutions, family, and society collectively influence the individual's growth into personhood which only exists in relation to the community (Roland,

1988; Hook et al., 2004). In Asian psychology, for example, the person's *self* is the substance of individuality or identity and reality, and is closely related to the wider cosmos and his/her cultural identity. If one analyses African and Asian views on personality structure, development, motivation and psychological adjustment, the integrated nature of all these personality domains becomes clear, especially the fusion between the individual's being and his/her functioning in continuous interaction with a communal, group or collective influence, and an attachment to history and the universe. However, it also is difficult to directly compare Asian and African perspectives and assumptions on personality, because they also differ quite markedly.

Akbar (in Azibo, 1996) asserted that Western personality theories in the different schools are too deterministic, mechanistic, reductionist and rational, and do not really explain human functioning adequately. Dealings with people in the human sciences, such as psychology and the medical sciences, are also often one-dimensional, without consideration of the intricate nature of the physical, intellectual and spiritual nature of human functioning. There is a need across the world and in Africa to explore *indigenous psychologies* too, that is, to study human behaviour and mental processes and related methodologies from the perspective of specific cultures. In this exploration a process of *indigenisation* must be utilised to adapt existing psychological assumptions and methodologies to specific cultures (Ho, 1988; Hook et al., 2004).

African psychology explains personality and personality development as purposeful behaviour, a unitary or holistic concept of interdependent physical, mental and spiritual dimensions in harmony with the values of history, ecology, nature and the laws of life. The basic natural ingredient of the human personality is spiritual, and from before birth a guiding spirit is developed and preserved through all other physical and mental experiences and interaction with nature. Cultural experiences, such as artistic expressions, rituals and symbols, are aimed at unifying possible opposing forces between the individual, society and the spiritual world.

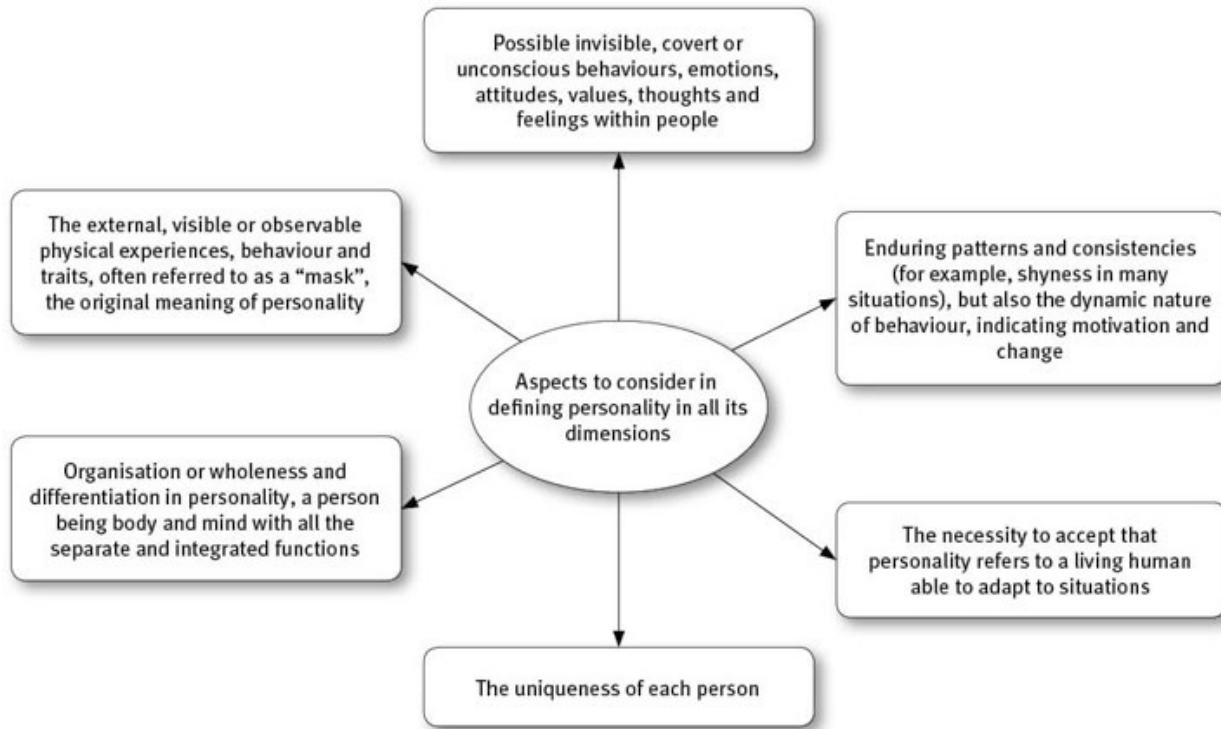
The physical dimension of personality focuses on survival. The mental or intellectual domain focuses on obtaining knowledge about the world and the self, to create order in knowledge and events, and especially to communicate knowledge meaningfully. Both the physical and mental domains serve the spiritual survival of humans. All other aspects of existence should be secondary to this spiritual desire. Though spirituality and religion are obtained in many ways, such as through churches, traditional healers, song, dance, prayer and

priests, spirituality is also strongly related to ancestors.

In summary it suffices to say that more and other classifications and theories of personality can be found in the literature. Examples are developmental perspectives, for example Erikson's life span approach (see [Chapter 4](#)), McClelland's needs theory, Seligman's concept of learned helplessness and Zuckerman's concept of sensation seeking, as well as theories emphasising self-concepts, interpersonal relations and person-environment fit theories. Another approach is to study personality alongside differential psychology or individual differences to determine the relatedness of personality or individual difference factors with other behaviour, for example work-related personality factors (Schultz and Schultz, 2009; Larsen and Buss, 2008; Cervone and Pervin, 2008).

## 13.4 DEFINING “PERSONALITY” AND RELATED CONCEPTS

The variety of approaches to studying personality results in many different definitions for *personality* – no universally accepted definition exists (Larsen and Buss, 2008). Definitions of personality usually reflect the personal experiences, and the theoretical and assessment preferences of theorists. However, there is some agreement regarding aspects that should be included in a personality definition, and on aspects that influence personality. For example, many psychologists now agree that personality can be adequately explained only if the interaction between the characteristics or traits of a person and the situation or environment is considered (interactionism and transactionism). In summary, though, *personality refers to a profile of consistency in attributes and behaviour* in the person across time and situations, as well as to the uniqueness of personality in each person (Cervone and Pervin, 2008). Some aspects to be considered in defining personality are shown in Figure 13.3. If we analyse and interpret these definitions the many dimensions of personality will become clear. Most of these definitions succeed to a degree to integrate some aspects of personality.



**Figure 13.3** Aspects to consider in defining personality in all its dimensions.

Allport's widely accepted definition described personality as “the dynamic organisation within the individual of those psychophysical systems that determine his characteristic behaviour and thought” (1961:28). (See also 16.4.)

A quite similar definition by Meyer (Meyer, Moore and Viljoen, 1997:12) describes personality as “the constantly changing, but nevertheless relatively stable, organisation of all physical, psychological and spiritual characteristics of the individual which determine his or her behaviour in interaction with the context in which the individual finds him/herself”. The inclusion of the physical, psychological and spiritual characteristics recognises the concept of the human as a person having these characteristics.

Mischel (1976:2) describes personality as “the distinctive patterns of behaviour (including thoughts and emotions) that characterise each individual's adaptation to the situations of his/her life”.

Schultz and Schultz (1994:10; 2001: 9-10) view personality as “the unique, relatively enduring internal and external aspects of a person's character that influence behaviour in different situations”.

Cattell (1965:25) took a more specific view of personality and viewed it as

“that which people will do, think or say when placed in a specific or given situation”.

Child (1968:83) offered an integrative definition of personality as “more or less stable, internal factors that make one person’s behaviour consistent across, and different from, the behaviour other people would manifest in comparable situations”.

Larsen and Buss (2008, 4) also offer an integrated definition as follows: “Personality is the set of psychological traits and mechanisms within the individual that are organized and relatively enduring, and that influences his/her interactions with, and adaptations to, the intrapsychic, physical and social environments”.

African definitions will not necessarily define personality in terms of uniqueness, physical and psychological attributes, but will emphasise personhood or the self in relation to the community, that is, the person is a person only in relation to other people (Hook et al., 2004; Pawlik and d’Ydewalle, 2006). Critics of the community-person perspective assert that personality in an African context can also be individually unique, the individual can also influence community and actually transcend the community, but still contribute to the community (Hook et al., 2004). In a sense the African perspectives are similar to the interpersonal perspective. For example, Sullivan (1953:111) asserted that personality is the “relatively enduring pattern of recurrent interpersonal situations which characterise a human life”. This view is echoed by descriptions of what self-concept means: it is mostly people’s self-identity as perceived by themselves or others, or as they think others see them.

From a work perspective, personality might be seen as those attributes that fit the demands of the working environment. For example, Neff (1977) defined the *work personality* as semi-autonomous from other aspects of personality, and included acquired work styles, behaviours, abilities, feelings and attitudes necessary to fulfil a productive role as demanded in work situations.

Related to personality are the concepts of temperament, character, self and individual differences. *Character*, which has personality-related meanings, is often used to refer to a person’s values and moral and ethical principles. *Temperament or nature* denotes a person’s emotional orientation and has genetic, physiological or biological connotations, such as when people say someone is moody, overreacts or has a high stress tolerance. Temperament might be more visible during childhood, because adults are able to control their emotions better. The self might have many personality-related connotations, as

defined by various authors (Troll and Skaff, 1997; Harter, 1998; Schultz and Schultz, 2001; Larsen and Buss, 2008). In general the *self* denotes anything that people themselves, or through others, perceive as belonging to their sense of being or personhood and describes the “I”, “me” and “mine”. The self may also refer to something that unifies various aspects of personality or which motivates or energises personality.

*Individuality or individual differences* have the connotation of uniqueness in personality and behaviour, and may include all personal and personality factors that distinguish people from each other. Individual differences are mostly expressed and measured in terms of cognitive and non-cognitive traits on which people can differ, and which can be measured by psychometric instruments.



**Figure 13.4** Personality is more than the overt characteristics visible in each person.

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## 13.5 DETERMINANTS OF PERSONALITY DEVELOPMENT

As indicated in Chapter 4, a general consensus prevails that both genetics and environmental influences are important and independently and mutually contribute to personality development and functioning. Depending on the developmental stage and domains of behaviour (cognitive, physical and sociopsychological), either genetics or environmental factors may have more or less influence in personality development and in well-adjusted or maladjusted behaviours. Perhaps it is more important to realise that people must create the conditions and environment to complement genetics in order for personality and human potential to develop optimally over the life span.

### 13.5.1 Hereditary and biological factors

*Genetic influences* are related to biological maturation, growth and changes that take place, notwithstanding environmental factors, although these can delay or distort certain processes. The uniqueness of each person with respect to some aspects can be sought in genetic endowment, especially in physical traits, intellectual capabilities and emotional or temperamental traits (Kagan, 1994; Larsen and Buss, 2008; Weiten, 2011). Except for physical and neurological attributes, genetic influences are reported for emotional and social behaviours such as affiliated behaviours, certain attraction behaviours between males and females, and emotional expressions such as anger, fear, surprise, joy, sadness and disgust.

### 13.5.2 Environmental factors

*Environmental factors* are not only physical in nature, but also relate to social or psychological influences (see [Figure 4.3 in Chapter 4](#)). All these factors are important in how genetic potential develops and affects psychological and social behaviours, and the similarities and differences in attributes, values, attitudes and beliefs that characterise individuals and groups. An important environmental influence is to socialise the developing person for adult responsibilities and roles such as marriage, family life and work. The most important environmental agents are as follows:

- *family influences* (A developing child's parents and other close caregivers provide the type of psychological and social examples, models and rewards that will enhance or inhibit healthy personality development. Immediate and

extended family interactions are the basis for the growing person's attachment, work and other behaviours, self-concept and identity development. The child's experience of family life will lay the groundwork for many roles, future relationships, gender identity, and identity as a student, worker, parent and member of society. Every child in a family might have different experiences of the same family interactions and of the outside environment, which, together with genetic differences, might also explain personality and behaviour differences.)

- *social affiliations outside the family* (Peer groups and friends, often serve as an extension of the family, a place in which the child can explore and extend the perceptions of him-/herself and the world, and often also test the behaviours relevant in the family. Harris (1995) asserts that experiences outside the home are really responsible for differences between family members. In a world with different values and attitudes, especially with regard to being responsible and independent, peer involvement might lay the basis for a culture of healthy competition, learning and work.)
- *cultural and ethnic membership* (Cultural membership is important in that it often provides the historical and immediate mega-environment that prescribes certain behaviours or creates opportunities. The group to which a person belongs at a certain time in life might create a legacy of socio-economic status and other identities and roles, with related ways of behaving that are not easy to change. In many ways culture will determine how people think and feel, and what they do. In this sense cultural differences between individuals and groups might be much more important than is often recognised, for example by political and labour systems wanting to force integration amongst various peoples at all levels. Cultural psychologists view personality and culture as mutually inclusive (Church, 2000).)
- *certain external factors, such as socio-economic and political circumstances* (The circumstances into which people are born, develop and live create the opportunities, and contribute to the physical, social and psychological circumstances that will influence personality formation. Traumatic environmental events may have acute and long-lasting effects on personality and behaviour.).

## 13.6 DIMENSIONS AND DOMAINS OF PERSONALITY AND HUMAN BEHAVIOUR

Most theories of personality, related to certain psychological schools of thought, have a fundamental view of humankind, which usually describes a theorist's central ideas and overriding assumptions on those things that are common to human behaviour and human existence. For example, Allport described people as unique individuals with unique personality traits and purposeful behaviours. Freud viewed people as motivated by internal biological and unconscious forces that are often in conflict with societal norms. Kelly described how people exist in the world by cognitively forming and adapting their own personal constructs. Rogers described people as basically good and positive and able to realise their potential to be fully functioning persons.

In general, personality theories can be studied and understood in a number of dimensions and may include the physical, cognitive, emotional and social domains (Cervone and Pervin, 2008). The domains are also discussed in Chapter 4. The interdependent dimensions are the structure of personality, the motivation or dynamics of behaviour, and the growth or development of personality. Some theories also include personality adjustment (psychological health), as well as preferences for methods of assessment and research. This approach relates to a so-called “systems approach”, in which Mayer (2007) describes personality in terms of the parts of personality, personality organisation and personality development.

### **13.6.1 Structure of personality**

*Structure of personality* refers to the basic building blocks that *make up or constitute personality* and how these are organised. Various concepts are used, some complex and abstract and difficult to assess or observe, others more clear, concrete, easily observable and measurable. For example, in Allport, Cattell and Eysenck's theories traits are used as structural concepts, Freud proposed intrapsychic mental structures referred to as the id, ego and superego, Kelly preferred a structure in terms of cognitive constructs, Rogers utilised the self-concept, and learning theorists take the concept of behavioural responses as an integrative structural concept.

Structural concepts mostly also determine concepts for the dimensions of motivation, development, assessment and research.

### **13.6.2 Motivation in personality**

The motivation or dynamics of behaviour describes why people behave in particular ways and *what activates, energises or directs and changes behaviour*

(see [Chapter 5](#)). Hence, some theories stress internal drives, emotions, motives or needs that consciously or unconsciously create tension and direct behaviour. Others propose that people are, or must be, drawn by external forces or goals. Still others believe people want stimulation, that is, to grow towards and to achieve self-fulfilment, whilst others believe all people are intrinsically motivated because they exist or become competent through certain traits or behaviours, for example being conscientious, in order to satisfy needs. All these approaches may explain motivation by referring to the past, present or future, or by referring to conscious and unconscious states, or by biological and/or social and environmental determinants.

### **13.6.3 Personality development**

Personality development (see [Chapter 4](#)) refers to *growth, maturation and expansion of personality* in the physical, cognitive and psychosocial domains, across the life span, as well as influencing factors such as heredity and socio-environmental conditions (Mayer, 2007). Some theorists consider maturation as a result of predetermined biological processes, whilst others accentuate cultural and social learning and experience or socialisation. Some theorists stress development as occurring through progressive stages, which are often critical and sensitive. Others describe it as a continuous or lifelong process, often similar for all people. Others again see the uniqueness of personality development for every individual. General development theories and career-development theories also describe the formation of work-related knowledge, tasks, attitudes and values necessary for occupational maturity and adjustment.

### **13.6.4 Personality adjustment and psychological health**

Most theories, in addressing the concepts of structure, motivation and development, also explain *personality adjustment* (psychological or mental disorders and health), as well as ways to promote adjustment and treat or manage psychological health problems (see [Chapters 19](#) and [20](#)). Adjusted (normal behaviour), as described in personality handbooks, and maladjusted or abnormal behaviour or psychological disorders, as described in sources on psychopathology, are considered by most theorists as two separate types of behaviours. Many other theorists and researchers, such as Cattell, stress the importance of understanding normal behaviour in the diagnosis and understanding of maladjusted behaviours (Strack and Lorr, 1994). Helmes and Jackson, and Morey and Glutting (in Strack and Lorr, 1994) provide evidence

that the same taxonomy of personality constructs can be used to study normal and abnormal behaviours. Helmes and Jackson also advocate the possibility of normal personality pathology which is the existence of personality behaviour deviations in normal individuals which should be differentiated from behaviour that can be classified as a personality disorder.

Different theorists consider different aspects in explaining psychological health. Rogers, for example, associated psychological health with a positive self-concept in relation to a person's environment and his /her success in achieving self-actualisation. Freud coupled psychopathology to traumatic past experiences, conflicts between the id, ego and superego, and overuse of defence mechanisms, whilst a person with a behaviourist approach would explain adjustment problems as stemming from faulty learning and negative environmental influences.

In respect of personality adjustment, many theorists and adherents to positive psychology also address the positive and optimal aspects of behaviour, and those aspects of personality that are possible to change and influence by change, for instance in psychotherapy, and by emphasising growth, strengths and resilience in human and organisational behaviour (Snyder and Lopez, 2007).

### **13.6.5 Personality assessment methods**

Related to the schools of thought, personality theories mostly also have preferences for assessment and research methods. In this respect mention is often made of the so-called two sciences in psychology: clinical and statistical.

The *clinical approach* typically emphasises an intensive *qualitative analysis of the individual* and the uniqueness of behaviour, often using subjective means of assessment and relying strongly on qualitative sources of information, for instance test results and the psychologist's interpretation and judgement of events and communication. Psychoanalysts would use a person's own verbalisations and experiences of events, as well as dream analyses, to assess behaviour. Rogers, who could be viewed as an existentialist or phenomenologist, also preferred to rely on an individual's personal experiences in the here-and-now as the most reliable source for analysis. Others, for example the constructionists, analyse people's social behaviours and communications, such as verbal communication and other expressions such as art.

In contrast, the *statistical approach* considers the use of *more objective and quantitative sources of analysis*, such as scientifically constructed tests and questionnaires, controlled experiments and other observations, and statistical methods of presenting and interpreting data. Most trait theories, for example

Cattell and Eysenck's, were largely postulated based on research findings in a statistical approach. They used factor analysis to isolate traits to explain most aspects of personality and assumed that all people to some degree possess such traits. Behaviourists believe in exact measurements, observation and experimentation to test hypotheses about behaviours and to establish cause-and-effect relationships between them.

In practice nowadays, a combination of approaches and techniques is often used for personality assessment, depending on the application. In selection, for instance, a combination of methods might be used: job and situational analysis, biographical and other background information, previous performance analyses, and personality and aptitude testing. Any number of methods could be used, including questionnaires, projective techniques, interviews, and interests and values testing.

In all these dimensions of personality functioning, the various domains of human behaviour used to explain personality are the physical, cognitive (intellectual), psychological domains. The psychological domain can also include social and emotional functioning. Especially in the description of personality development and growth, the separate and interdependent progression and integration of these domains towards maturity are considered important (Larsen and Buss, 2008). It is in the unique combination of all these influences in individuals that personality will develop and manifest.

The concepts psychologists use to assess people in research and in practical applications derive from the structure, motivation, development and psychological adjustments as proposed in the various theories. Personality assessment is about how people think, behave and feel.

## **13.7 UTILISING PERSONALITY RESEARCH IN THE WORK CONTEXT**

Personality is primarily explained by the concepts and assumptions of the various personality theories, but also by personality research and the assessment of these theoretical concepts and assumptions. Personality theories provide the concepts and integrative approaches or paradigms for logically and consistently explaining, describing, assessing and predicting human behaviour (Ashton, 2007; Cervone and Pervin, 2008).

In general all types of personality information or assessment data can be classified as one or more of the following methods of data collection:

- *L-data or life data* is information from someone's personal history, such as in archival studies.
- *O-data or observer data* is information obtained by observations and ratings of people who are involved with or knowledgeable about participants, such as family, friends and colleagues.
- *S-data or self-report data* represents information obtained from what the respondent verbally tells the researcher, such as during interviews and when answering questionnaires.
- *T-data or test data* refers to information gathered from standardised tests and questionnaires, and during experiments.

The science of personality study or personology is different from people's personal or implicit theories about people, because it has a scientific basis which allows researchers to substantiate assumptions and concepts about behaviour. Personality psychology has grown from mere philosophical speculation to verified psychological knowledge based on systematic and controlled empirical research on human behaviour. In contrast, people's personal theories about people and human behaviour are often the result of a few observations, often invalidated by their own values, prejudices and other subjective judgements.

Contemporary research, alternative approaches to scientific inquiry, and movements for indigenous and cross-cultural psychology have contributed to personology by emphasising the indigenisation and validation of concepts from Western psychology, or the creation of indigenous psychologies for specific cultural groups (Squire, 2000; Hook et al., 2004; Kowalski and Westen, 2011). These approaches try to influence, change or reinterpret many existing concepts about human nature, as well as concepts about research, assessment and other types of interventions which they believe are cognitive and social constructions from specific, mostly Western, traditions, which might influence how human behaviour is dealt with. In South Africa, personality research shows promising results in establishing personality factors that may be useful in understanding the diversity of people in South Africa, and which in some respects might be quite different from other countries (Meiring, Van de Vijver, Rothmann and Barrick, 2005; Meiring, 2008). Personality research increasingly involves cultural and cross-cultural findings to determine consistency with regard to certain personality factors between different cultures.

The goals of personality research are to obtain valid and reliable research support for theories and related assumptions, concepts and methods in order to expand knowledge and applications on personality, and to build and revise

personality theories. In the work context there is interest in the reciprocal relationship between personality (behaviours, feelings and abilities) and occupational behaviours (work-related personality factors) in order to facilitate the best fit between an employee and the work environment.

Despite earlier contrasting opinions (Guion and Gottier, 1965), recent research and meta-analysis of previous research stresses the value of personality assessment in work-related applications (Barrick and Mount, 1991; Hogan, 1991; Tett, Jackson and Rothstein, 1991; Furnham, 1992, 1997; Hough, 1992, 1997; Muchinsky, 1993; Schneider and Hough, 1995; Barrick and Ryan, 2003; De Fruyt and Salgado, 2003). Longitudinal research (research over longer periods) cited in Cloninger (1996) and Craig (1996) indicates the reciprocal effects between personality and work variables. Personality, value patterns and work attitudes formed in early life can have enduring influences in adult occupational behaviours, although later influences and changes, such as work involvement and autonomy, can also be instrumental in creating or maintaining work attitudes, and can even influence the expression of personality. Results indicate that employees who are poorly adjusted in early life might in later occupational life show less career advancement. Ashton (2007:181–207) reports findings that suggest the value of personality in predicting consequences in various life outcomes. In this regard, research indicates that overall career success and happiness are aided by personality factors, such as being optimistic, serious-minded, energetic, contented, open, spontaneous, self-confident, self-sufficient, ambitious and free from negative feelings, hostility, aggression, anxiety, irritability, unhappiness and dissatisfaction.

A special application of correlational research in the work context is *criterion research*, in which problems of validity, reliability and restrictedness are special issues. Researchers and practitioners try to find work performance criteria that are specific to certain jobs and situations but also have universal applications. The box below shows an example of a cluster of work-related personality criteria.

### **An example of a cluster of work-related personality criteria**

Campbell, McHenry and Wise (1990) suggested an eight-factor performance taxonomy for high-level jobs, as follows:

- job-specific task proficiency

- non-job-specific task proficiency
- written and oral communication tasks
- demonstration of effort
- maintenance of personal discipline
- facilitation of team and peer performance
- supervision
- management and administration.

A problem in criterion research is the use of too broad an approach, in which too many predictors are correlated with too many criteria. Researchers will have to be more specific in isolating, defining and measuring those personality and work-performance variables that belong together. Another problem in work-performance criteria is that task or technical performance is not clearly differentiated from contextual activities, the latter sometimes referred to as “prosocial and organisational citizenship behaviours”, such as support, offering extra help, volunteering and being loyal, the latter referring to job outputs that are not technical, but that support the technical task performance (Brief and Montewidlo, 1986).

Furnham (1997) analysed the following six different approaches that are used to research personality in the work context, which also in some respects compare to Cervone and Pervin’s (2008) classification:

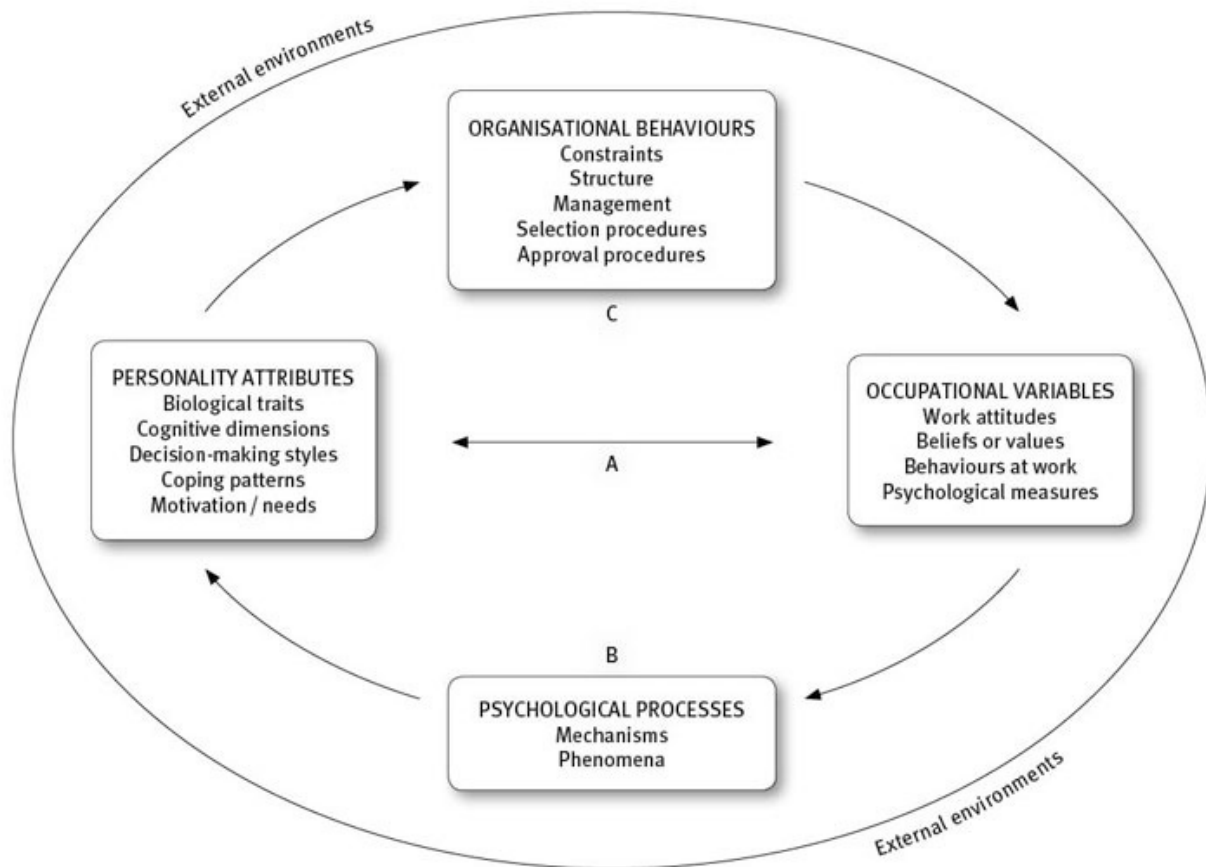
- biographical or case-history research, which is aimed at analysing personal life details and experiences
- classic personality theory (see the approaches described in section 13.3) in which many different personality attributes are measured and related to work-related personality variables
- specific personality measures for very specific work applications, such as using a measure of locus of control or self-efficacy and emotional intelligence or hardiness to predict success in fighter pilots
- analysis of the attributes of work environments and employees to find the best fit (or misfit) in order to take decisions in occupational choice or selection
- classic organisational and occupational psychology, in which work-related variables are researched for their relationship with personality
- longitudinal studies of people at work, covering how various personal and personality factors stay consistent or change over time.

Furnham (1992, 1997) asserted that many of these approaches and much

research on work-related personality variables are theoretically and methodologically poor. He suggested a research model to illustrate the relationship between personality and work. Figure 13.5 is an adapted version of his model.

The model shown in Figure 13.5 illustrates the complex possibilities in the relationship between personality and work-related variables. The relationship between personality factors and work variables (line A) is not direct and can be influenced by many other factors. This relationship can be bi-directional, that is personality and work factors can have mutual or interactional influence. Personality can influence work behaviours, but work variables can also influence the expression of personality. In selection, for example, the assessment and prediction of applicants' behaviour is about the possible relationship between personality attributes, such as personality traits, interests, values and motivation, and work-related or occupational success criteria. In many instances one must assume that personality has an indirect influence on work behaviours. Schneider and Hough (1995) presented a model in which they proposed three types of moderator variables (intervening factors) that might influence the relationship between personality and work performance. These moderators can be related to each of the boxes in the model shown in Figure 13.5:

- *Personal moderator* variables are traits that are either very central or unique to an individual, or more general traits that will be predictable in most situations.
- *Situational moderator* variables refer to either specific situations that are strong constraints on behaviour, or some situations that might cause people to express behaviour differently.
- *Criterion moderator* variables include aspects such as the validity and reliability of performance criteria and the time of measurement.



**Figure 13.5** A research model that illustrates the relationship between personality and work.  
Source: Adapted from Furnham (1997:43) Reprinted with permission from Thomson Publishing Services

The relationship is further affected by the way the psychological processes that underlie the personality variables in relation to work variables are defined and understood (see box B in Figure 13.5). Similar personality concepts are defined or explained differently by different theoretical approaches: some are more concerned with biological and situational influences, others with the influence of emotional or cognitive processes in behaviour.

The relationship between personality and work variables is further impacted by formal and informal organisational behaviours and constraints (see box C in Figure 13.5). The way an organisation functions can have a facilitating or inhibiting effect on the work personality, and on the fit between the employee and the organisation. In some instances an employee must do a task in one way only, thus inhibiting individual expression, whilst in other instances an employee

is allowed or forced to act differently in each situation.

The broader environments in which the organisation and individual exist (represented by the surrounding oval in Figure 13.5) will also influence the relationship between personality and organisation. In times of change and transformation, both the employee and the organisation have to adapt, and these adjustments are reflected in the expression of personality and work behaviours. Many non-work factors, for example family influences, through spill-over effects, influence how personality is expressed in relation to work roles and work demands.

This model indicates the complexity of all these factors in influencing occupational behaviours. In the field of work-related psychological assessment, factors such as personality, demography, ability, intelligence, motivation and many intervening variables individually and interactively influence and modify occupational behaviours. Of all these, personality traits are central in the relationship between personality and occupational behaviours, because personality traits may relate to all other aspects. Personality traits are also more consistent than other behaviours and have been shown to relate to many other psychological and work-related variables.

This model is also in line with the human resource emphasis on job competencies in the work context, as it specifies attributes (such as personality traits and abilities) that are measured when job competencies are determined.

## **13.8 SUMMARY AND CONCLUSION**

To understand and describe human behaviour, and to influence and predict behaviour, knowledge of personality is a necessary competency in many psychological fields of practice.

In this chapter personality study and personality is defined, criteria for effective personality study and some controversies about certain assumptions are discussed. The scientific study of personality through various theories, research and assessment methods needs to adhere to scientific thinking, whilst successful personality theories are comprehensive and simple in their explanation of concepts, enjoy research support, and include concepts and methodologies that can be measured and applied.

Personality study includes knowledge about the structure or components of personality, behaviour motivation, how personality develops and related influences, and psychological adjustment in human personality. Research

increasingly indicates the value of utilising knowledge on personality and individual differences in work-related applications.

The various approaches to personality study, for example psychoanalysis, cognitive and African, are summarised and some will be dealt with in more detail in following chapters.

Modern theoretical and applied psychology in its various applications is evidence of a wider and more creative utilisation of psychological and personality constructs. It seems as if there is a shift in the criteria for effective personality theory – a shift to complexity from simplicity, diversity rather than similarity, specificity over generality, and an emphasis on uniqueness rather than common characteristics. This shift also coincides with integrative views, such as systems theory and expanded trait models, in which the complexity of interactions is considered important, and the consensus that, except for intellectual and cognitive aspects, individuals show fewer similarities over time and between situations than was previously accepted (Caprara and Van Heck, 1992; Larsen and Buss, 2008). The time has gone when psychologists could use one theory, some factors only or one method to assess, explain and comprehend personality satisfactorily.

Although some people doubt whether personality psychology has really accumulated much knowledge, has expanded on existing knowledge or even has its own paradigms, many would agree that many advances are evident when original schools of thought and earlier assumptions on behaviour are compared with current assumptions and practices. However, it should be stressed that, although the study of personality integrates many concepts and findings of psychology, it is a factor in many spheres of human functioning and is used in many applied fields. However, more than other psychological disciplines, personality psychology should have an “integrator function” in the study of various aspects of human behaviour. Students of psychological disciplines should study the creative contributions of the great or grand theories, but also take cognisance of the modern tendency to study personality according to relevant concepts and research findings. They should also note the integrative approaches to the study and use of personality concepts (Shoda et al., 2007; Larsen and Buss, 2008).

In personality study the cultural context is a rich source to understand and explain personality study, because culture, through values, behaviours, traditions, language and other agents provides formative influences and the meaning systems of personality expression. To understand people without

prejudice involves considering personality in a specific cultural context, and not only using systems of American and European personality psychology. In this regard, as is the case in other psychological disciplines, indigenous psychologies and alternative research approaches by politically-minded and other interest groups are doing much to contextualise psychological knowledge on personality (Hook et al., 2002; Hook et al., 2004).

Though personality study tries to be an integrative discipline in the study of human behaviour, not all psychological topics are covered in the study of personality. Personality study still does not cover all nuances of personality and psychological functioning (Pervin, 2000; Shoda et al., 2007; Larsen and Buss, 2008). Many theories on personality exist, but research is still necessary to find a universal body of knowledge that can stand the tests for completeness and research support. Such knowledge needs to be able to explain and describe the human personality in all its dimensions and domains, and in all its variations across time, situations and within and between cultures. Cultural diversity in human behaviour, however, raises the question of whether such integration will ever be possible. Perhaps the variation in personality theory and constructs may be necessary to reflect the richness of human individuality and cultural diversity.

However, it is necessary to acknowledge the momentous influence of the older traditional theories, such as Freud's psychoanalysis which energised the systematic study of personality. The traditional behaviourist and humanistic theories, and trait and type approaches, and the newer cognitive, biological and social approaches have also influenced the thinking of many authors, researchers and practitioners of human behaviour. New, emerging personality theories, such as the Five-Factor Model and other holistic approaches to personality, offer a valuable integrating function. It is also possible that the principles in systems thinking will be translated into an integrated personality theory that could accommodate differences and commonalities in and between various theories and also accommodates various cultures. These approaches could succeed in integrating decades of psychological knowledge in a more holistic manner, and maybe one day lead to a science of personality. Holistic approaches should emphasise the person in personality study once again, and might break the ground for revised and new applications in assessment, research and other practical uses of personality constructs (Baltes, 2000; Block, 2000).

Viljoen asserts (in Meyer, Moore and Viljoen, 1997) that although differences exist, psychological thinking in personality psychology enables psychologists to explain human behaviour in the four aspects of human existence: people as

individuals, in relation to other people, in relation to the physical environment, and in relation to a transcendent existence (spiritual and religious functioning). To this one we could add an important life aspect: one's work life.

Managing and developing diverse work forces, groups and individual employees in changing work environments might increasingly rest on psychologists' abilities to understand expressions of the human personality.

## **13.9 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Personality can be said to be the study of:
  - a) generic and specific traits in people and how they differ
  - b) attachment behaviours and how it influences personality
  - c) consistent patterns of behaviour across time and in situations
  - d) psychological adjustment and its promotion
  - e) all psychological processes known in psychology.
2. "The focus is on how traditional and communicated meanings and practices are lived by individuals and groups, and how such meanings and practices influence people's identities and subjective experiences." This statement best describes the assumption of a \_\_\_\_\_ approach to personality.
  - a) cultural and cross-cultural
  - b) phenomenological/humanistic
  - c) psychodynamic
  - d) sociopsychological
  - e) cognitive and social learning.
3. Which viewpoint on personality would emphasise that personality is also generic in people and general laws on personality and human behaviour can be deduced from research?
  - a) a deterministic viewpoint
  - b) an idiographic viewpoint
  - c) a nomothetic viewpoint
  - d) a causative viewpoint
  - e) a holistic viewpoint.
4. Ideas about, for example, gender, sexuality and racism can be viewed as social constructions or representations of reality that lead to many prejudices and misperceptions about people, factors which can have a

formative influence on personality and how people behave. This explanation might represent an assumption of ...

- a) a psychodynamic approach
  - b) critical psychology
  - c) a behaviourist perspective
  - d) cross-cultural perspective
  - e) a social learning approach.
5. Imagine that you are requested to do an accurate job analysis of engineering jobs in your company to establish the exact tasks, functions and responsibilities of job incumbents, and to eventually establish the physical and personality-related job competencies. Which approach would help you to best execute this task?
- a) a cognitive approach
  - b) a behaviourist approach
  - c) an assessment approach
  - d) a biological approach
  - e) a trait approach.

### **Answers to multiple-choice questions**

1 = c; 2 = a; 3 = c; 4 = b; 5 = e

### **Issues for discussion and practice**

1. Construct a comprehensive definition of personality and motivate why you would argue that your definition is comprehensive.
2. Identify and argue the main points of the various perspectives on personality and indicate how you think they apply in a South African context.
3. Write a short narrative on your or another person's growing up and being in South Africa or elsewhere, and identify the influencing factors that you think impacted strongly on your personality formation and behaviour.
4. Describe the main tasks in your or another person's job, or use a job advertisement and identify the personality-related attributes and competencies of the job.
5. Explain and argue certain assumptions and controversies in psychological knowledge on personality.

## CASE STUDY

Julius is currently experiencing some uncertainty and stress in his job. His thinking and discourse about his situation is as follows:

I am now forced to do administrative work in the building section, a job which I did not apply for, but was placed in a year ago after having applied unsuccessfully for a position as project manager in the building section. There were many applicants across gender and race lines to fill two positions as building project managers. I do not understand what the HR people mean when they talk about the “right attributes and competencies” which I should possess to fulfil the job requirements in a project manager’s position. They tried to explain some scores and indications which they got from certain tests and questionnaires to me of which I did not really make a lot of sense. I am sure that I am the right person for such a managerial job. In my community in a rural area I am told by others that I am ready to lead and direct people because I am old enough and have been appointed to be a leader in various areas of community functioning. During the selection by the HR department they did not ask me about my background and experiences.

For some time now my supervisor, Sipho, a much younger person, and I have not seen eye to eye. I feel misunderstood, misused and angry because I know I am good at what I do, even if I am not enthusiastic about administrative tasks. I think I have good reasons to be late at work some days: I must attend to my elderly mother and my two young children before coming to work and I must travel quite a distance. I feel that I am treated differently from other male employees. Initially it was no problem, but now Sipho also has problems with my acting on my beliefs and dreams, because I believe I do get messages from my subjective mind and past history which I cannot ignore. Sipho believes I do not have enough discipline in my work team, because I will rather avoid conflict and solve problems by discussion and negotiation. However, I do believe in labour disputes and peaceful actions to get the best for all employees and people, which we have been taught in our communal life.

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1. Explain Julius's behaviour from this narrative by making use of certain perspectives and assumptions on personality.
  2. How does a cultural explanation apply to Julius's profile?
  3. If you analyse Julius's discourse or communication, what underlying themes do you detect?
  4. What causal factors do you think impact on Julius's ideas and personality functioning?
  5. What aspects of personality structure, motivation, development and adjustment can you detect from Julius's scenario?

## **CHAPTER 14**

# **Personality in unconscious processes**

*Linda Albertyn, Ziel Bergh and Michelle May*

14.1

## [Introduction](#)



A background to the psychodynamic view of human nature



## The basic assumptions of psychodynamics

14.4

The roles of the unconscious and the conscious in personality

14.5

## The structure of personality

14.6

Motivation and personality

14.7

The development and growth of personality

14.8

Personality adjustment



## Summary and conclusion

14.10

## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- identify the central themes in psychodynamic theories
- recognise the value of psychodynamics when applied to work behaviour
- describe the structure of personality as delineated by the main psychodynamics theorists
- explain what directs and motivates personality, and where it originates
- explain the development of personality as postulated in the main psychodynamic theories
- describe the healthy personality as viewed by psychodynamic theorists
- describe abnormal behaviour as viewed by psychodynamic theorists
- outline the major criticisms of psychodynamics
- discuss the main contributions of psychodynamics with reference to future directions to be taken.

### 14.1 INTRODUCTION

People sometimes say something different from what they thought they intended saying, making a so-called “Freudian slip” of the tongue. Often people will wonder what their strange dreams mean. People may also do things that cannot be explained along rational lines, for example feeling angry or rebellious towards specific people without reason. These behaviours may emanate from the hidden or less observable layers of personality, and studying these, in a nutshell, is what the psychodynamic approach to personality is about.

The *aim* of this chapter is to explain how the different dimensions of personality are explained by unconscious and related processes, and what the applied value of this approach is for the work context.

### 14.2 A BACKGROUND TO THE

# PSYCHODYNAMIC VIEW OF HUMAN NATURE

*Psychodynamic theories*, also referred to as *depth psychology*, consider human behaviour somewhat negatively, as more or less dependent on conflicting, and often hidden, forces outside a person's conscious control. In this sense, people are in a constant struggle to find a balance between their own real and unconscious urges, reality, societal demands, and the influence of past events on current and future behaviour.

The *psychodynamic approach* includes all the theories in psychology that see human functioning as based upon the conflict that exists between what people would naturally like to do (the id), and what society has taught them to do (the superego). Both of these forces are *unconscious*, and they energise and direct *conscious and unconscious behaviour* in more ways than one can possibly know. Thus, the psychodynamic approach allows us to study the unconscious processes (rather than just conscious ones, as in the case of the humanistic model) which operates within the individual. Through psychodynamics we observe human behaviour, in order to explore underlying individual psychodynamics (unconscious behaviour), which allows us to understand conscious behaviour in all contexts (Long, 2001).

Sigmund Freud's psychoanalysis was the original psychodynamic theory, but the psychodynamic approach as a whole includes all theories that were based on his ideas developed by neo-Freudian theorists such as Melanie Klein, Carl Jung, Alfred Adler and Erik Erikson.

Freud lived in the Victorian era, which was a self-satisfied society that believed in rationality and did not openly recognise human sexuality and aggression. It was within this context that Freud, a psychiatrist, studied mental patients and developed his personality theory based on a view of humankind as being largely influenced by *unconscious processes*. At the time, he shocked both his scientific community and the general public, though he was later considered a genius for postulating a theory so different from the prevailing patterns of thought. His influence was far-reaching, and many of his concepts are still accepted.

Even within I-O Psychology, some schools of thought consider unconscious processes an important determinant of individual employee's conflicts, and also use them to understand group and organisational behaviour (Brown, 2000; Kets de Vries, 2005). Psychodynamic thought, for example, is used to study the conflicts within teams, between team members, and between team members and

leaders (Kets de Vries, 2001; Long, 2010).

Psychodynamic theory provides a useful tool to help in understanding people's behaviour in general and in the work context (Brown, 2000). Psychodynamic assumptions are still applied in psychodiagnoses of psychological disorders (Heikkilä, Karlsson and Taiminen, et al., 2004), and psychoanalysis, which is also a therapeutic process, is still used by many psychological therapists (Coleman, 2005).

## 14.3 THE BASIC ASSUMPTIONS OF PSYCHODYNAMICS

Freud's basic view of humankind is that behaviour is determined and motivated largely by unconscious forces inside the person, which are in conflict with societal norms. This in fact represents a *conflict model*. The ideal lifestyle involves a compromise or dynamic balance of the two opposing forces, with both getting more or less equal expression in behaviour. Finding pleasure in life, and not just going through painful life experiences, is an example of this balance (Koortzen and Cilliers, 2001).

In contrast to the prevailing emphasis on conscious mental processes, Freud likened consciousness to the tip of an iceberg. According to his assumption, the larger part of the iceberg, the unconscious, was more important than the conscious part, and it was this part that might enable psychologists to understand conscious human behaviour.

In another assumption, in contrast to the view of humans as rational beings, Freud stated that people were in a perpetual state of conflict between the expression of unconscious sexual and aggressive instincts (biologically based drives or desires) and societal demands. The energy from this conflict motivates or determines all behaviour. Freud developed a unique approach to psychotherapy, called *psychoanalysis*, which was aimed at understanding the unconscious desires motivating his patients' behaviour. During the process, which can involve a long-term therapeutic relationship, the client is assisted in exploring the unconscious, for example, to understand how unresolved conflicts from past experiences influence current functioning.

The newer theories by neo-Freudians such as Adler, Jung, Erikson, Horney and Fromm (Cervone and Pervin, 2008), opposed Freud's emphasis on sexuality and aggression as determinants of human behaviour. Rather, they emphasised the role of social factors in shaping personality, and the role of interpersonal

relationships in determining behaviour (Kiesler, 1996). Some theorists also took Freud's idea of the ego further, to explain the development of human personality, which was a move away from biological determinism to social determinism – from the id to the ego, and from the study of the child to the study of the adult. These theorists acknowledged the possibility of humans being able to control primitive drives and lead fulfilling lives.

Despite the differences, certain central ideas can be identified in all psychodynamic theories (Marx and Cronan-Hillix, 1987; Hjelle and Ziegler, 1992; Carver and Scheier, 1996):

- Personality is seen as a dynamic set of processes (processes that are always in motion). These processes include unconscious processes such as instincts, intrapersonal-, interpersonal- and social processes on the one hand, and rationality and conscience on the other.
- The processes sometimes work in harmony with one another and sometimes work against one another, but are rarely passive. The unconscious is a “dynamo” from which forces emerge that can be set free, channelled, modified or transformed. In this view, the work context serves as an important outlet for these energies. For example, aggressive instincts can be transformed in a socially acceptable way by choosing the career of a surgeon or becoming a professional boxer.
- Competing pressures within the personality, primarily life and death instincts, conflict with each other. The processes of personality sometimes compete or wrestle with each other for control over a person's behaviour. However, a career in professional sports, for example, could constitute a good balance between the aggressive need to compete and the gratification derived from being loved and admired.
- The conflicts and many of the motivations that take place amongst the elements of personality are often unconscious. For example, the surgeon or boxer mentioned above would probably not be aware of acting out in the chosen career the possible desire experienced as a young child to kill his/her siblings. Likewise, the rebellious employee would be unaware that he/she is unconsciously acting against his/her own father.
- The basic drive is sexual (the life instinct), supplemented by aggression (the death instinct), and has its energy and origin in the biology of the individual. Work serves as an excellent outlet for satisfying sexual and aggressive impulses through intimate contact, competition, discussion, meetings or sadistic pranks against colleagues (Czander, 1993).

- The history of the individual, particularly that of early childhood, is very important in determining contemporary behaviour. Poor parental relationships with the child, for example, may account for neurosis. (The contemporary term is “anxiety-based disorders”. However, since this chapter describes the original depth psychological concepts, the term “neurosis” is used throughout.)
- Freud argued more specifically that human sexuality must be taken into account at all stages of development – even infancy. A person displaying inappropriate consumption of alcohol at work may have had needs for oral gratification that were not satisfied during childhood.
- Psychological health depends on a balance of forces in one’s life. It is good to express one’s deep desires, but not to let them control one’s life. It is exemplary to act morally, but a constant effort to be perfect can cripple one’s personality. It is healthy to have self-control, but it is not acceptable to be over-controlled. Moderation and balance of these forces provide the healthiest experience of life.
- Every person has psychological processes to keep those elements of self-knowledge that are most threatening, from becoming overpowering. These defence mechanisms of the ego (see Table 14.1) protect an individual from psychological harm. Work offers people good opportunities for acting out defences. For example, an individual who fears that his/her personal anxieties will become known to other people, may work towards a position of authority and control over others, in order to hide his/her own insecurities (Czander, 1993). Though well-adjusted people also utilise some of these defence mechanisms to cope with reality, defence mechanisms may bring about maladjustment when they become the only or a dominant way to interact or to handle the demands of life (as in the case of personality and schizophrenic disorders, where projection may be extremely strong). It is interesting to note that, in the same manner that individuals use defence mechanisms to maintain their self-concepts, information that threatens an organisation’s collective self-concept is ignored, rejected, reinterpreted or lost. Defences in organisations may influence the way information is used, stored and recalled when needed. (Cilliers and Koortzen, 1998; Brown, 2000).

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**Table 14.1**      Ego-defence mechanisms and examples

## Defence mechanism

Characteristic

Example

Repression	Unconsciously preventing or denying threatening and painful impulses, thoughts and feelings, buried in the unconscious, to reach consciousness.	An employee, traumatised by unemployment experiences, forgets appointments, fails to perform tasks or arrives late at work.
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Projection	Ascribing of own, often threatening and undesirable thoughts, feelings mistakes or motives to others.	An employee believes he/she is not promoted because of the boss's prejudice or dislike of him/her.
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Reaction formation	Behaving in a manner exactly the opposite of one's true, possible undesirable, feelings.	An employee boasts about his/her supervisor whilst harbouring feelings of rivalry.
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Displacement	Directing negative emotions or attitudes away from their original source to a substitute person or object.	An employee who is reprimanded at work, or who is insecure, is very strict and demanding at home.
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Fantasy	Fulfilling frustrated needs by imaginary achievements or wishful thinking.	An insecure subordinate imagines being selected as president of the company.
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Overcompensation	Protecting one's self-image or weaknesses by overemphasising certain aspects.	Entrepreneur achieves to compensate for growing up in a poor family and area.
Intellectualisation (isolation)	Isolating or insulating threatening experiences or emotions by speaking rationally or intellectually about them.	An employee is fired, but when speaking about the process, says that procedures were followed exactly according to the law.

Rationalisation	Finding logical, plausible but false excuses to justify unacceptable or irrational behaviour or disappointments.	A student, after a difficult exam, asserts that he/she did not study because he/she knew that the paper would be unreasonable.
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Regression	Avoiding painful feelings and experiences by reverting to earlier, immature or less stressful patterns of behaviour (a form of fixation).	A supervisor has temper tantrums when he/she doesn't get his/her way with employees.
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Identification	Defending against threatening feelings or low self-esteem by relating to someone or an idea.	A young employee is very demanding in a work group, emulating the company's manager.
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Sublimation	Channelling threatening or socially undesirable thoughts and impulses into acceptable outlets. (This is related to displacement.)	The minister transforms aggression into preaching or the artist sublimates sexual frustration in artistic expressions of women.
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## 14.4 THE ROLES OF THE UNCONSCIOUS AND THE CONSCIOUS IN PERSONALITY

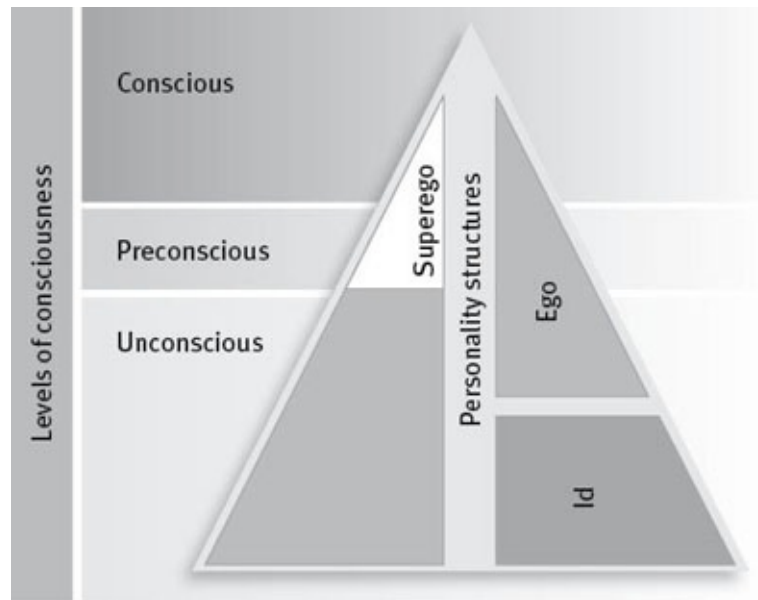
Freud believed that the human mind is organised into three levels of awareness. This is often referred to as the *topographical model* of the mind. The three levels are as follows:

- *the conscious*: Freud's notion of the conscious corresponds with the everyday notion of the conscious. In other words, it includes all the sensations and experiences of which one is aware at any given moment. Since one can be aware of only a small portion of one's thoughts, sensations and memories at any given time, the conscious is a small and limited aspect of one's personality.
- *the preconscious*: The preconscious refers to "available memory", in other words experiences that are not readily available to one's awareness, but that can easily be retrieved into awareness. Where a person spent his/her last holiday is a good example of this.
- *the unconscious*: Freud placed the unconscious central to his theory, of greater magnitude and importance than the conscious and the preconscious. The unconscious refers to those experiences that are not easily accessible to awareness. It contains memories, emotions and instincts that are so threatening to the conscious mind that they have been pushed into the unconscious mind. An example of material that could be found in the unconscious mind is a forgotten trauma experienced in childhood. The unconscious mind, the largest part of the mind, remains a mystery. It is believed that its contents can be brought to awareness only with great difficulty, if at all. Freud believed that the unconscious is the repository of biological drives, and that it is from here that unresolved conflicts with regard to the instincts, such as sex or aggression, operate (Nevid, et al., 2003, 2008).

Freud used the analogy of the iceberg to describe the three levels of awareness or consciousness (see Figure 14.1). An African analogy of the three levels of conscious awareness is a group of hippopotamus swimming in the water.

Sometimes we can see the head of the hippo, sometimes only the ears, whilst the body and the legs of the hippopotamus is below the surface of the water.

- The *conscious* is the portion above the surface of the water.
- The part underneath the surface, the *unconscious*, occupies nine tenths of the mind.
- The *preconscious* is the bridge between the conscious and the unconscious mind.



**Figure 14.1** Freud's three levels of consciousness and personality structures.

The unconscious contains the major driving power behind people's behaviour and is the basis for explaining all behaviour. It exerts a continuing influence on later actions and conscious experience. Freud believed that even the simplest, most accidental aspects of human behaviour could not be ascribed to chance: slips of the tongue, slips of the pen, the misplacing of objects and the forgetting of appointments and names can all be ascribed to unconscious material. Unconsciously, people often forget the name of a person who has angered them, or the details of a frightening experience. Dreams, jokes and work can all permit the indirect expression of socially unacceptable impulses. For example, an individual with a fascination for the human body may choose to become an art photographer. In this way, his/her desires can be channelled in both a socially acceptable way and in a manner that satisfies his/her own need to attain pleasure.

The concept of unconscious factors motivating behaviour has been applied in

the work situation, for example, through the Johari-window (see the box below).

## The Johari-window

The *Johari-window* is a concept coined by Luft and Ingram (Robbins, 1996). The Johari-window provides a model for feedback on self-knowledge, and personal, interpersonal and communicative behaviour. The Johari-window works with two dimensions: feedback to self and exposure to others. Within the feedback dimension are elements that are known to the self and elements that are unknown to the self. The same applies to the exposure dimension. The ideal situation in the work situation is one in which few elements are unknown to the self and to others.

**Table 14.2**      The Johari-window

	Known/open to oneself	hidden from/closed to oneself
Know/open to others	(1)	

Known to oneself	(2) Unknown to oneself, known to others (one's blind spot)	
Unknown /closed to others	(3) Hidden from others, known to oneself	(4) Unknown /hidden from others

This model is often used in organisations to facilitate growth and learning. The process entails self-disclosure whereby individuals open up and talk about themselves, and also receive feedback from others on their behaviour.

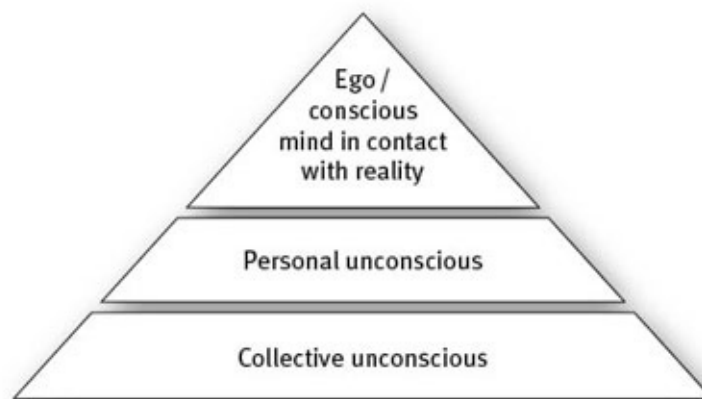
Object relations theory primarily emphasises the importance of an individual's relations with actual (external) and phantasised (internal) objects. Essentially, object relations theory allows an analysis of the person and his/her relations with internal and external objects (Czander, 1993; Klein, 1985; Ogden, 1983). The term *object* is used, because the relations are not only with a person. They can be with a group, an idea, an organisation, a symbol and in infancy, to parts of the body (Czander, 1993, p.44). Melanie Klein is considered to be one of the foremost object relations theorists.

Klein's object relations theory departed from and built upon Freud's theories. Freud (1921) has illustrated that the infant's emotions are complex, and that the infant experiences serious conflicts. Based on this work, Klein developed conclusions about the infant's early development and unconscious processes through *observation of childhood development and psychoanalytic play techniques* (Likierman, 2001; Segal, 1992). Her work demonstrated that adulthood has its roots in infancy, by showing that the earliest activities of the ego are involved in various defence mechanisms (such as projection), in an attempt to exclude particular anxieties from consciousness (Klein, 1985).

Klein focused on the development of the dyad (infant and the significant other), whereas Freud focused on the triad (infant, mother and father). In the primary (first relationship between the infant and the significant other), the infant categorises everything into that which satisfies him/her (the good) and that which frustrated him/her (the bad). Usually in the infant's unconscious, when the significant other satisfies him/her (feeds and cleans the infant and keeps the infant warm and safe), the significant other is seen as good. When the same

significant other frustrates the infant (does not feed or clean the infant in time, cannot make the infant feel safe and warm), the significant other is experienced as bad. The consequence is that the very same person is split into good and bad. These images of the significant other, as either good or bad, are taken into the unconscious as *part objects*. In the depressive position, the infant, through more experiences with the significant other, learns that the one that frustrates (the bad) is also the one that cares (the good). The infant no longer separates the significant other into good and bad and *whole objects* (the bad and the good as being integrated) are formed in the unconscious (Klein, 1985; Likierman, 2001). An example of this in the work context is when employees, during a conflict situation, see management as all bad – these employees are operating from *part object relations*. However, when the employees understand that the management is disagreeing with them, because the management is strategically thinking about the future of all employees and not just opposing them – these employees are now operating from *whole object relations*.

Although Jung (Flett, 2007; Maltby, 2007) agreed with Freud's notion of the unconscious, he added another important dimension: the collective unconscious. He distinguished between a personal unconscious, which is a blend between Freud's unconscious and preconscious, and the collective unconscious, which refers to certain culturally inherited predispositions and experiences common to all people (see Figure 14.2).



**Figure 14.2** Jung's three levels of consciousness.

Jung's ideas on the unconscious have had a significant impact on assessment and research in personality. He developed the word-association test, which provided

the first experimental data on unconscious processes and is still widely used today (Meyer, Moore and Viljoen, 1997). The test consists of a standard list of words that are read aloud and to which the person has to respond with the first word that comes to mind. Delayed responses may indicate a complex or that the person is lying.

Because the social psychodynamists, such as Adler (Flett, 2007), emphasised the influence of social and cultural factors rather than biologically driven instincts, they regarded humans as largely conscious and able to rise above their past experiences. They did, however, still regard the uncovering of the unconscious as an important part of understanding human behaviour. The image of a jade tree has been used to describe Adler's view of the conscious and unconscious (Aiken, 1993). The jade tree has a small underground root system (the unconscious) and extensive growth above the ground (consciousness). Unlike Freud, Adler believed that people were able to overcome their instincts and the effects of the past and to strive for more fulfilling lives, shaping their own destinies and improving themselves through growth (Hjelle and Ziegler, 1992).

## 14.5 THE STRUCTURE OF PERSONALITY

In addition to his topographical model of the mind, Freud developed a *structural model of personality* (see Figure 14.1). According to this model, personality is made up of three components: the id, the ego and the superego.

The *id* is found in the unconscious and contains the energy to drive behaviour or personality. The energy is the result of the conflicts described earlier between biological instincts, rationality and conscience. In reducing the tension created by the unconscious conflicts, the id operates according to the *pleasure principle*. Its function is to obtain maximum pleasure through striving for immediate satisfaction of all needs ("I want, I want, I want"). Instincts are divided into two groups, all of which reside in the unconscious: life instincts, of which the most important is the libido (or sexual instincts), and death instincts, of which the most important is aggression.

The *ego* is situated in consciousness. It is an evaluative agent that intelligently selects the behaviour that minimises pain whilst maximising pleasure (in contrast with the id, which strives to attain pleasure at all costs). The ego is also known as "reason" or "rationality" – it determines appropriate and socially acceptable times, places and objects that will satisfy the id impulses. Although the ego still

strives to attain pleasure, it is modified by the *reality principle*. This implies that the ego has the ability to sometimes temporarily turn aside the gratification of certain desires to increase overall gratification. Work satisfaction can be attained only if the reality principle modifies the individual's pleasure principle according to the accepted social perception at work (Czander, 1993).

As a result of contact with societal and cultural agents, especially the individual's parents, a third mental agent, the superego, develops. It functions as a suppressor of pleasurable activity in the same way as parents do during a child's formative years. This is also referred to as an *internal morality*, or a "conscience", governing ideas on what is right and what is wrong. It operates according to a *morality principle*. The superego has two subsystems: a conscience that punishes behaviour and an ego ideal that rewards it. The conscience brings about feelings of guilt, and the ego ideal brings about feelings of pride. The superego is relentless, even cruel, in its constant quest for moral perfection. Its purpose is not to postpone the pleasure-seeking demands of the id (like the ego), but rather to inhibit them. In comparison with the id that largely operates from the unconscious, the superego is influenced by conscious and unconscious contents.

Although personality is mostly driven by the id's energy, the ego is the balancing agent, and is caught in the middle of three "dangers": the id, reality and the superego. The inevitable result of this friction, when the ego is too severely repressed, is the development of anxiety. *Anxiety* leads to neurosis and maladjustment.

Within an organisational context, Berne used the concepts of the id, ego and superego in a theory of transactional analysis which really indicates relationship or communication patterns. He identified three states corresponding to the three constituents of personality:

- the child (id)
- the adult (ego)
- the parent (superego).



**Figure 14.3** The relationship between the id, ego and superego.

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These three states are often used in work-related training to explain interpersonal behaviour patterns. The ideal state is adult-to-adult communication. If a supervisor acts as the “parent” (superego) in communication with his/her subordinates, it can be expected that they will react in the “child” (id) mode. Results satisfying to both the employer and the employee (as achieved by the ego or “adult” state) would then not be achieved.

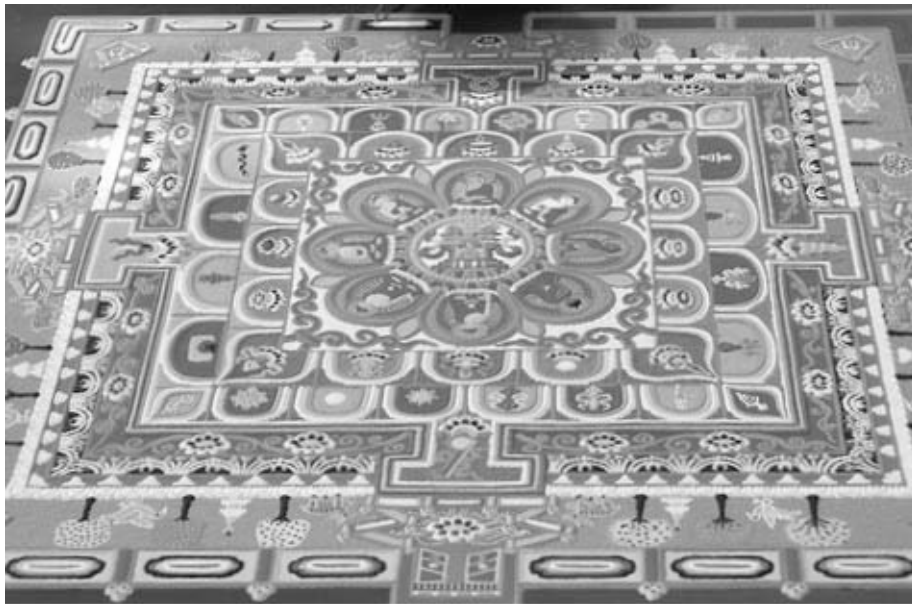
Jung stated that personality or the psyche, as he called it, consisted of the following:

- the *ego*, related to conscious awareness
- the *personal unconscious*, related to repressed material not in the conscious awareness
- the *collective unconscious*, material latently available to conscious awareness.

The collective unconscious is an extension of Freud’s unconscious. Jung believed the collective unconscious contained archetypes, which are culturally inherited predispositions to perceive, act or think in a certain way. The *archetypes* are formed as a result of the experiences of people’s forefathers and are universal.

The five most important archetypes are:

- the *persona* (The persona is the mask presented by an individual to society. It is feminine in women and masculine in men.)
- the *anima* (The anima is the feminine part of men.)
- the *animus* (The animus is the masculine part of women. The anima and animus are the balancing agents of the persona. Both develop in interaction with the opposite sex.)
- the *shadow* (The shadow corresponds with Freud's id, in that it consists of inherited biological instincts. Immoral and passionate impulses emanate largely from the shadow, as with Freud's id.)
- the *self* (The self is the most important archetype, as it holds all the others together. The self represents the striving to wholeness and an integrated personality and is represented in various cultures by the mandala or magic circle (see the art work below.).)



**Figure 14.3** The mandala: symbol for the self.

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Like Freud, Jung saw human personality as the result of an internal struggle. But Jung's conception of the self reveals a more optimistic viewpoint than Freud's, as he considered the future and potential of the individual as well (Aiken, 1993). Although archetypes remain unconscious, they influence people's thoughts, dreams and emotions and render people responsive to cultural themes in stories and films (Nevid, Rathus and Greene, 2003, 2008).

I-O psychologists can also use archetypes when assisting groups to understand their own behaviour and their interactions with other teams or departments. In organisations, a senior person with lots of experience is sometimes referred to as a “wise old man”, whilst the finance department that controls all the finances is experienced as a controlling “parent”. These archetypes conjure up in individuals certain thoughts and feelings, which in turn influence the individuals’ behaviour towards other individuals or departments. Although most early psychodynamists agreed with the structural model of personality, later psychodynamic theorists shifted the focus from the id (and unconsciousness) to the ego (and thus consciousness) and to the role of social influences.

Adler believed that humans have a *creative self*, which is their central concept for personality structure. People give meaning to life through their creative powers, a basic social interest in people, the development of social skills, and the overcoming of a basic sense of inferiority.

In Adler’s theory, the important conflicts occur between the individual and the environment, rather than within the individual, as Freud had held.

## 14.6 MOTIVATION AND PERSONALITY

For both Freud and Jung the basic motivating force is biological in nature and often also unconscious. The *instincts*, which are biologically based, are considered the basic motivating force of all human behaviour. The instincts, which derive their energy from the constant conflicts between id drives and superego requirements, drive behaviour in a person’s striving to attain satisfaction at all costs. Because the id operates according to the pleasure principle, the striving to attain pleasurable sensations is a strong motivational factor. According to Jung’s view, the archetypes, or the universal inherited predispositions towards certain behaviours, direct behaviour. As both the instincts and archetypes reside in the unconscious, the unconscious plays an important role in personality. In other words, people are mostly not aware of what motivates their behaviour.

Freud believed that the most important instinct in the development of personality is the *libido* or sexual instinct. He believed that infants have to satisfy certain sexual instincts in order to develop normally, and that any frustration in doing so leads to later behavioural and adjustment problems. In fact, Freud believed that the human personality is formed by the age of six. The

motivation for personality is therefore also found in past events.

Klein also demonstrated that early development consists of two distinct, but overlapping, developmental positions, for example, the paranoid-schizoid and depressive positions (Klein, 1985; Likierman, 2001). The paranoid-schizoid position is marked by splitting, introjection, projection and projective identification which ensure that others are perceived as part objects (either good or bad objects). A shift from the paranoid-schizoid to the depressive position occurs when the infant moves from interacting with part objects (seeing the primary caregiver as only good or bad), to interacting with whole objects (recognising that it is the same object that is at times both frustrating and nurturing) (Klein, 1946). Thus, the depressive position is an attempt at making whole object relationships and points to the integration of opposites (Brown, 2003; Likierman, 2001).

The paranoid-schizoid position is present for the first three to four months of development, and the depressive position predominates for the next few months until the end of the first year of life (Likierman, 2001; Segal, 1992). It is important to bear in mind that the depressive position cannot be completely maintained (Miller, 1989, p.10). When the self-esteem is threatened, the person in his/her adult life tend to regress to functioning from the paranoid-schizoid position, whereby the primitive processes of splitting and projection are reactivated. Miller (1989) also proposes that splitting, projection and projective identification are reactivated in our relations, for example, between group members, between groups in a system /organisation and between two organisations. In oscillating between the paranoid-schizoid and depressive position, we perceive others in a certain way, which motivates us to behave in particular ways.

In contrast to Freud's insistence that childhood events determine personality, Jung adhered to the *teleological principle*. The teleological principle links the present with the future through a future goal that guides and directs behaviour. Opposed to Freud's emphasis on the past, Jung had a more future-directed view of the motivation for personality. He believed that the individual strives towards the future goal of self-fulfilment, and that that influences present behaviour.

Adler stated that human infants begin life with a *sense of inferiority*, a feeling that is never outgrown, no matter how long one's life may be. Adler considered the life-long struggle to overcome feelings of inferiority to be the principal motive behind human behaviour. The "will to power" (through overcoming inferiority) was thought to be the greatest motivating force in people's lives, and

sex at times in males may be a manifestation of that will. The sex act may represent domination of the female, rather than simply the satisfaction of sexual impulses.

Another important motivating factor in personality is the development of defence mechanisms (see Table 14.1). *Defence mechanisms* are developed in order to cope with the anxiety that develops as a result of unconscious conflicts. Defence mechanisms have two features:

- they mostly operate on an unconscious level (one is unaware of them)
- they distort reality so as to make it less threatening (Engler, 1995).

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**Table 14.3** Freud's psychosexual stages and personality types

Psychosexual stage

Age

Erogenous zone

## Development task

Personality type

Oral stage

± 0–1,5 years

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Mouth

*Pleasurable activities:*

- sucking
  - chewing
  - biting
-

Weaning from breast or bottle	<ol style="list-style-type: none"><li>1. <i>Oral-dependent type</i>: cheerful, optimistic, expects “mothering” from the world, continually seeks approval</li><li>2. <i>Oral-aggressive type</i>: argumentative, pessimistic, “bitingly” sarcastic, cynical</li></ol>
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Anal stage

± 1–3 years

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<p>Anus</p> <p><i>Pleasurable activities:</i></p> <ul style="list-style-type: none"> <li>• retention and expulsion of faeces</li> </ul>	<p>Toilet training (learning self-control through distinguishing between immediate id satisfaction and social constraints)</p>	<ol style="list-style-type: none"> <li>1. <i>Anal-retentive type:</i> obstinate, stingy, orderly, punctual, intolerant of ambiguity</li> <li>2. <i>Anal-expulsive type:</i> destructive, impulsive, cruel, disorderly, sees others as objects to be possessed</li> </ol>
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Phallic stage

± 2–6 years

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Genitals <i>Pleasurable activities:</i> <ul style="list-style-type: none"><li>• masturbation</li></ul>	Identifying with same-sex adult role model <i>Boys:</i>
-----------------------------------------------------------------------------------------------------------	------------------------------------------------------------

Overcome Oedipal conflict  
*Girls:*

---

Overcome Electra complex

1. *Phallic male*:  
boastful, Don Juan, tries to win others over
2. *Phallic female*  
flirtatious, seductive, naïve

Latency period	± 5–12 years	Non-sexual activities <i>Pleasurable activities:</i> <ul style="list-style-type: none"> <li>• peer relations</li> <li>• sports</li> </ul>		
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Genital stage

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Puberty onwards

---

Genitals

*Pleasurable activities:*

- heterosexual activities
-

Establishment of

---

intimate relationships

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Traditional psychoanalysis views defences as maladaptive. In contrast, Hartman believed that the ego is able to use defence mechanisms to its benefit. For example, a student might be able to concentrate and study better after a weekend of play. Here regression serves the ego (Hjelle and Ziegler, 1992).

Freud's concepts of *anxiety and defences* have been applied with great success in the work situation (Hirschhorn, 1993). Feelings of anxiety can be at the root of dysfunctional relationships at work. These can be caused by the task structure of the organisation. For example, a work group may manage its anxiety by developing and deploying a set of social defences, such as denial, rationalisation and fantasy (Brown, 2000). Every social defence depersonalises relationships at work and distorts the group's capacity to accomplish its primary task. The social defences can even distort relationships between the group and its wider environment (customers, clients and competitors). This happens when the group retreats into its own fantasies and blames the "outside" to preserve the "inside". Group development takes place when group members stop looking for scapegoats or projecting their own unacceptable shortcomings onto others. Cilliers (2000b) has shown that following a psychodynamic approach could greatly enhance team-building events.

## 14.7 THE DEVELOPMENT AND GROWTH OF PERSONALITY

The psychoanalytic theory of development is based on two premises:

- Firstly, early childhood experiences play a critical role in shaping adult personality and in gender identification.
- Secondly, a certain amount of sexual energy is present at birth, and continues to progress through a range of psychosexual stages.

Adler, however, differed from this position in that he did not view the infant as a small sexual animal whose desires must be repressed, but as a small and helpless organism whose every need must be administered to by relatively powerful adults. These feelings of helplessness and *inferiority* motivate the individual to strive for independence and to overcome the inferiority complex.

Freud defined four sequential stages of personality development, referred to as psychosexual stages:

- the *oral* phase
- the *anal* phase
- the *phallic* phase
- the *genital* phase.

A period of *latency*, normally between the ages of six or seven and the onset of puberty, was included by Freud, but not considered a stage of psychosexual development. The term “psychosexual” emphasises that the major factor underlying human development is the sexual instinct as it progresses from one erogenous zone (body part that experiences sexual pleasure, for example mouth, genitals, etc.) to another throughout a person’s development.

*Psychosexual development* is biologically determined and occurs in the same sequence in all cultures. However, the individual’s social experiences at each stage leave their mark in the form of attitudes, traits and values acquired at that stage. Each psychosexual stage has certain developmental tasks that need to be resolved before progression to the next stage is possible. *Fixation* will be the result if these tasks are not properly resolved. This refers to being “stranded” in the tasks of a previous stage. The weaker the resolution of those tasks, the easier it is for an individual to regress to an earlier stage of psychosexual development later in his/her life (back to the “weak link” in the developmental chain). This happens because libidinal energy is not successfully transferred from the unresolved stage to the next stage, thus leaving too little energy for the attainment of the mature genital stage.

A variety of adult character types are connected to each unresolved stage of psychosexual development. Table 14.3 provides a summary of the psychosexual development stages and the character types associated with each. The Table shows that the first developmental task for a baby involves being weaned. If this does not happen successfully and the need is not satisfied satisfactorily, it results in a fixation. According to psychoanalysis, this implies that the adult might still try to satisfy the need. This might sometimes result in overeating, smoking and chewing gum. More importantly it can lead to the development of certain character types, as depicted in the Table.

A concept that attracted a lot of attention is the Oedipus conflict. The *Oedipus conflict* refers to the unconscious desire to possess the opposite-sexed parent and simultaneously dispose of the same-sexed parent. From a work perspective, all struggles between subordinates and superiors may be viewed as Oedipal

struggles, as the hierarchical structure of work closely resembles that of a family system. Psychodynamically, all employees want to be the favoured child of the idealised leader, and all want the leader's power and perks (Czander, 1993; Kern, 1999).

Horney (Maltby, 2007) in particular challenged Freud's ideas on the Oedipus complex. According to Freud, little boys and girls want exclusive love relationships with the mother and father respectively. On a metaphoric level, girls may develop penis envy. Horney believed that both sexes are envious of each other, men being envious of women for their breasts and ability to produce children (Aiken, 1993). She referred to this envy as *womb envy*.

In line with her social focus, Horney ascribed the psychological differences between the sexes to social and cultural conditioning, arguing that personality develops in line with the social relationship between the child and his /her parents. Childhood is characterised by two needs: the need to satisfy basic needs and the need for safety. Parental mistreatment can lead to an attitude of basic hostility, which places the child between dependence on its parents and resentment towards them (Hjelle and Ziegler, 1992). Within the work context this may manifest in a passive-aggressive orientation towards the boss. Examples of this type of behaviour are continual lateness in completing assignments, the "forgetting" of appointments or the failure to do work assigned in a meeting.

Chodorow expanded on the relationship between gender identity and the organisation of work. She believes that the early relationship between mothers and their children explains why boys' nurturing capabilities are limited and why they are prepared to work outside the family. Mothers and daughters see each other as extensions of themselves during infancy. However, mothers view their sons as dissimilar and do not experience the same feeling of "oneness" as they have with their daughters (Engler, 1995). This prepares the two sexes for different roles:

- non-relationship activities for men, which would explain why they often choose occupations in the natural and engineering sciences
- relational activities for women, which would explain why women often choose occupations in the helping professions (the high number of female psychologists may be evidence of this).

Although Freud's theories are often viewed in the light of nineteenth-century biological determinism, empirical research on child development argues against complete rejection of Freud's ideas on psychosexual development (Neubauer

and Neubauer, in Engler, 1995). Research findings seem to support the existence of the oral, anal and phallic character types, but not the existence of the psychosexual stages *per se* (Aiken, 1993).

Unlike Freud's conception of psychosexual developmental stages and their critical influences on adult character and personality, Jung's theory does not place much emphasis on stages in personality development, nor on the influence of childhood experiences on personality development. Research indicates that the middle-childhood years might be considerably more important in forming adult personality patterns than the early-childhood years. Although this does not mean that the first five years of life have no impact on personality development, it is apparent that personality continues to develop beyond the age of five, the time at which Freud said no further development occurred (Schultz and Schultz, 1994).

Jung emphasised the notion of *individuation*, which refers to the process of becoming differentiated as an individual. Individuation occurs throughout life, but reaches its peak in adulthood around middle age, and is characterised by increasing growth and transformation which refers to self-exploration and the discovery of inner resources. In this process over time people develop different degrees of the attitudes of introversion and extraversion, and varying tendencies towards the four functions of:

- sensing
- intuition
- thinking
- feeling.

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**Table 14.4** Jung's two attitudes and four functions as measured by the MBTI-16 personality types

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Functions	
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Attitudes	Sensing	iNtuitive	
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Functions	Introvert	1. <b>ISTJ</b>	2. <b>ISFJ</b>	3. <b>INFJ</b>	4. <b>INTJ</b>	<b>Judging</b>
		5. <b>ISTP</b>	6. <b>ISFP</b>	7. <b>INFP</b>	8. <b>INTP</b>	<b>Perceiving</b>
	Extrovert	9. <b>ESTP</b>	10. <b>ESFP</b>	11. <b>ENFP</b>	12. <b>ENTP</b>	<b>Perceiving</b>
		13. <b>ESTJ</b>	14. <b>ESFJ</b>	15. <b>ENFJ</b>	16. <b>ENTJ</b>	<b>Judging</b>
		<b>Thinking</b>	<b>Feeling</b>	<b>Feeling</b>	<b>Thinking</b>	

Functions	
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Source: Adapted from Briggs Myers, Kirby and Myers (1993:7); Walsh and Betz (1995:116); Fitzgerald and Kirby (1997); Briggs Myers, McCaulley, Quenck and Hammer (1998:64) Jung was the first theorist to define the *introversion /extraversion* typology. This personality construct is recognised as a personality trait or disposition in people and measured by, for example, the Myers-Briggs Type Indicator (MBTI). Introversion/extraversion is one of the main factors in many trait or factor models on personality, such as the 3-, 5-and 16-Factor Models. The MBTI is used to measure personality types in people according to the two attitudes and four functions.

### **The Myers-Briggs Type Indicator (MBTI)**

The MBTI is a personality inventory that is extremely useful in determining a career suited to a certain personality. Research into this inventory is consistent with Jung's types. For example, introverted types tend to enter technical and scientific fields, sensing types tend to enter practical fields, and feeling types tend to enter the helping professions (Aiken, 1993). An extraverted-thinking type can be suited for a career in the physical sciences, and an extraverted-intuitive type would undoubtedly prefer an entrepreneurial profession. A career as a salesperson would not be recommended for an introvert. Successful adjustment in work, as in other areas of life, requires that one follows the innate predispositions of the collective unconscious (Ewen, 1998).

Although a mixture of the two attitudes and four functions are present in all individuals, one attitude and two functions normally dominate a personality. Jung identified eight personality types resulting from the various combinations of the two attitudes and the four functions. The types constitute the theoretical basis of the MBTI. The MBTI is discussed in the box above and is also referred to in [Chapter 16](#).

The MBTI also has great potential for helping people to understand how they do things, for example, learning and leadership styles, and how to motivate workers (Engelbrecht, 1994; Keirseey and Bates, in Engler, 1995). Research comparing a black South African sample and an Australian sample, however, found no evidence for the clear manifestation of the introversion/extraversion dimension amongst black South Africans (Heaven, Connors and Stones, 1994).

As in the case of Freud's theory, Jung's concepts also relied heavily on the development of projective tests to measure personality, such as the Thematic Apperception Test (TAT) and the Rorschach Inkblot Test. Projective tests work from the premise that an individual will unconsciously use his/her inner desires to respond to unstructured stimuli, thus in fact *projecting inner* and often unconscious feelings and thoughts into answering such stimuli. In this regard, research has found a strong correlation between achievement motivation as measured by projective tests and actual achievement in occupations. Moreover, achievement motivation can be improved by training, which may lead to better occupational performance (Meyer, Moore and Viljoen, 1995).

Erikson (Flett, 2007) asserted that personality develops over the entire lifespan, in contrast to Freud who claimed that it develops and sets in the first six years (and remains fairly set thereafter). Erikson is best known for his eight stages of psychosocial development (see [Chapter 4](#)), called the "eight ages of man" in which he describes the impact of social experiences across the lifespan. Each stage is characterised by a crisis, which has both a negative and a positive component. If the conflict is resolved satisfactorily, the positive component is absorbed in the ego and further healthy development is assured. Conversely, if the conflict remains, the negative component is incorporated into the ego, which hampers further healthy development. In this respect Erikson agreed with Freud that personality developed in a series of predetermined stages and that the resolution of each stage affects the direction of further personality development.

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**Table 14.5** Comparing Freud's stages of psychosexual development and Erikson's stages of psychosocial development

Approximate ages	Freud's stages of psychosexual development	Erikson's stages of psychosocial development
Birth to 1 year		

*Oral stage*

A child's primary source of pleasure is through the mouth, via sucking, eating and tasting.

---

*Trust vs mistrust*

Children learn to either trust or mistrust their caregivers.

---

1–3 years

---

*Anal stage*

Children gain a sense of mastery and competence by controlling bladder and bowel movements.

---

*Autonomy vs doubt*

Children develop self-sufficiency by controlling activities such as eating, toilet training and talking.

---

3–6 years

---

*Phallic stage*

The libido's energy is focused on the genitals. Children begin to identify with their same-sex parent.

---

*Initiative vs guilt*

Children begin to take more control over their environment.

---

7–11 years

---

*Latent period*

The libido's energy is suppressed and children are focused on other activities such as school, friends and hobbies.

---

*Industry vs inferiority*

Children develop a sense of competence by mastering new skills.

---



*Genital stage*

Children begin to explore romantic relationships.

---

*Identity vs role confusion*

Children develop a personal identity and sense of self.

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Adulthood	According to Freud, the genital stage lasts throughout adulthood. He believed the goal is to develop a balance between all areas of life.
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*Intimacy vs isolation*

Young adults seek out romantic love and companionship.

---

*Generativity vs stagnation*

Middle-aged adults nurture others and contribute to society.

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Source: <http://psychology.about.com/library/bl-freud-erikson-compared.htm> (accessed on 5/5/2012) A South African study conducted by Ochse and Plug (1986) found some evidence for the validity of Erikson's stages. In general, though, few studies on his ideas were conducted, as Erikson did not construct a theory that could be verified easily by research.

Erikson's theory can be applied with great effect in the work situation. In terms of his theory, an adult would need to define his/her identity before an occupational choice could be made. In other words, adults must know themselves well enough to know where they would "fit" best. Vocational indecision would then reflect a more fundamental indecisiveness about personal identity (Hjelle and Ziegler, 1992).

Like Freud, Adler believed that the *first five years* of life set the stage for later psychological development. If the child is pampered and overindulged he/she will become spoiled, or, if neglected, cold and unsympathetic. Overindulged children are likely to become demanding neurotics who take without giving, whereas rejected children, who are dominated by the need for revenge, often become delinquents and criminals.

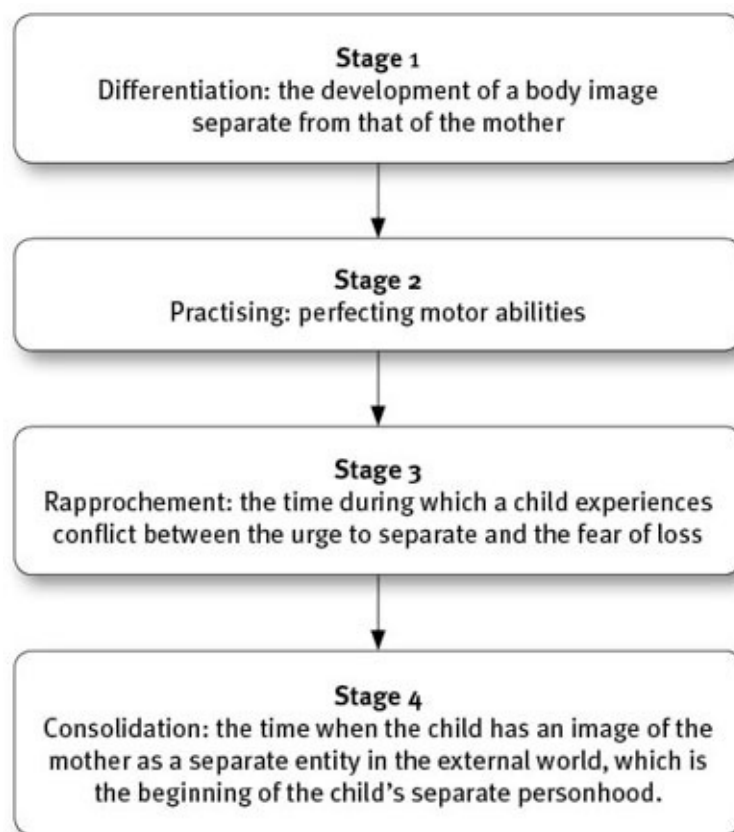
Adler believed that a child's birth order in the family determines how he/she will be treated. Parents tend to pamper both an only and a youngest child. The oldest child may feel neglected, as he/she has to stand back for siblings. Adler referred to the oldest child as a "dethroned monarch", who as an adult tends to be conservative, power-oriented and predisposed towards leadership. Adler viewed the middle child as achievement-oriented, because he/she has to compete with an older sibling (see the box below).

### **Is there a relationship between birth order and personality?**

Some research findings support Adler's proposition of the relationship between birth order and personality. For example, compared with later-borns, first-borns are more likely to become alcoholic and to seek psychotherapeutic help (Barry and Blane, in Aiken, 1993), which is consistent with Adlerian thinking that first-borns are more anxious and more likely to see social contact as a

means of coping with their anxieties. Wagner and Schubert (in Hjelle and Ziegler, 1992) found that oldest sons were over-represented amongst United States presidents. Melillo (in Hjelle and Ziegler, 1992) found that first-borns were over-represented amongst women earning doctorates.

Hartman believed that the ego could function separately from the id and be conflict-free in certain areas: in work, people could function purely for the sake of the ego and not to satisfy id impulses as modified by the ego (Czander, 1993). In the development of personality, Mahler focused on the relationship between the child and early caregivers. She described the process by which the ego unfolds in the child through a process of separation and individuation. The process is composed of four stages, as Figure 14.5 shows.



**Figure 14.5** Mahler's four stages in the process of separation and individuation.

Koortzen and Cilliers (2002) describe a similar process for teams in

organisations. They believe that teams also have identities or egos, and that it is the leader's role to manage and protect the identity boundary. These authors believe that conflict is inevitable in a group but that the anxiety can be contained by managing certain boundaries. In their "CIBART" model, they suggest that the C (conflict) can be managed by attending to the I (identity), B (boundaries, such as space and time), A (authorisation), R (roles) and T (tasks) of team members.

## 14.8 PERSONALITY ADJUSTMENT

Psychoanalytic explanations for psychological adjustment and maladjustment are still important in psychological research, psychological assessment, and treatment or therapeutic procedures.

**14.8.1 The healthy personality** Freud believed that the components of the healthy personality work together under the influence of the ego to achieve pleasurable yet safe discharges of tension. The majority of the libido energy is channelled to the genital stage, enabling the ego for the demands of adult relationships. It either blocks or sublimates dangerous id impulses, but not those that are healthy. It helps the superego to function in a moral way without allowing the conscience to speak too loudly or the ego ideal to become too perfectionist. Though life has its frustrations, the *well-adjusted person* is able to do two things: love and work (Ewen, 1998).

Although a person throughout his/her lifetime oscillates between the paranoid-schizoid and depressive position, Klein (1985) proposed that the adult who can more often operate from the depressive position (whole object relations), would be more adjusted. A person should not become stuck in a paranoid-schizoid position (the self consists mainly of part objects – others are seen mainly good or mainly bad), but rather in the depressive position (the self consist of whole objects – others are seen as consisting of both good and bad aspects).

Adler held a more optimistic view of the individual. He did not view the person as a collection of segments at war with itself, but as an integrated, striving individual. Adler's theory was popularised by practical applications to

educational and social problems. This is evident in the ease with which terms such as “inferiority complex” and “sibling rivalry” were assimilated into lay language. Adler believed that the healthy individual is measured by his/her success in fulfilling the three major challenges of life: society, occupation, and love and marriage (Ewen, 1998).

Jung claimed that the mature (and thus healthy) individual is characterised by the emergence of the self through the individuation process. Its purpose is to attain oneness between the individual and the world through religious experience, as well as oneness amongst the psychic systems within the individual. This process rarely occurs before middle age. Jung thought that Freud might be essentially correct about the importance of sexual motivation before middle age, but he believed Freud had simply ignored what happened after this point had been passed, when the self developed and sex became a subsidiary consideration (Marx and Cronan-Hillix, 1987). Jung did not single out any of his personality types as the ideal one, because he believed that everyone possessed all attitudes and functions in varying degrees. All functions and attitudes are necessary for successful living. The integrated individual has all these factors acting in harmony – people who are nearly pure types are seen as pathological (Marx and Cronan-Hillix, 1987).

According to general psychoanalytic theory, people need to fuse work and play in their chosen occupation in order to obtain work satisfaction. This is consistent with Super’s findings (Cooper and Robertson, 1990) that individuals who were most satisfied with their jobs and their lives in general, tended to have hobbies similar to their jobs.

#### **14.8.2 Psychopathology (abnormal behaviour)**

**Psychoanalytic theories have some implications for the development of abnormal behaviour. Freud believed that there are no clearly defined boundaries between mental illness and mental health. Both neurotic and healthy people struggle more or less with the same conflicts and complexes. The difference between the two lies in the extent of the negative impact of these conflicts on functioning. Anxiety (previously referred to as “neurosis”) emerges from fixated libidinal development. This occurs when the realistic satisfaction of erotic needs is denied and**

**the person turns to neurosis as a surrogate satisfaction. In psychodynamic thinking, *anxiety* develops as a result of pressures on the ego to balance the demands of the id and the superego. Freud distinguished between three forms of anxiety:**

- *Reality anxiety* refers to the anxiety experienced in the face of real dangers, such as fleeing a burning building.
  - *Neurotic anxiety* is the anxiety experienced when id impulses are in conflict with the ego. This generally develops in childhood, when children are punished for impulsive sexual and aggressive behaviour.
  - *Moral anxiety* represents a conflict between the ego and the superego, and is experienced owing to a fear of the guilt feelings provoked by a person's conscience when expressing instinctual wishes.
-

## The neurotic imposter phenomenon

Kets de Vries (2005) describes the so-called “neurotic imposter phenomenon” in employees, often people with perfectionism as a trait, who accept jobs to make a living and uphold expectations, but actually experience fears of success and failure, anxieties and guilt feelings, because they know, or think, that they do not cope in the job and are afraid that others will know this. Such employees will also downplay their own achievements to be acceptable, but might often change jobs and organisations. If they stay in one workplace for some time, they might negatively influence other employees and the organisation as a whole because of their high, but unrealistic, expectations, because of uncertainty with regard to decision-making (which may cost companies in lost opportunities), or because they have to contract others (outsiders) to get work done.

In addition to the above, fixation (being stuck) in a particular developmental phase constitutes psychopathology or neurosis, according to Freud. The *fixated libido* expresses itself in adult life according to the character types or traits that reflect an earlier level of development (see Table 14.3). Hence, an orally fixated person is likely to be dependent on and easily influenced by others. Oral personalities are optimistic and trusting to the point of being gullible.

It is important to note that prototypes of behaviour considered maladjusted in adulthood may be acceptable in childhood, as the child needs to work through these conflicts in his/her development. For example, sadistic and masochistic forms of behaviour, in which a person obtains sexual pleasure by inflicting pain (sadism) or receiving pain (masochism) may be apparent during the toddler years.

Freud viewed transference as an important therapeutic tool in curing neurosis. *Transference* occurs when the patient transfers to the therapist emotional attitudes that he/she felt as a child towards important persons. Freud distinguished between:

- *positive transference* (friendly affectionate feelings towards the therapist)
- *negative transference* (the expression of angry, hostile feelings).

By observing the behaviour, the therapist is better able to understand the patient’s characteristic way of perceiving and reacting, and to assist him/her in

finding better ways of handling conflict. It is important during the therapeutic relationship that the therapist does not reject or disapprove of the patient as others might. Freud's solution is therefore one of applying insight and working through the conflict. Therapy is a lengthy process, if one wants to gain a full understanding of the personality structure and dynamics. Freud wrote in 1917 that neurotics who have been cured will really become different people – they become their best selves, what they would have been under the most favourable conditions (Engler, 1995).

Both Rank and Ferenczi advocated shorter therapies, setting definite dates for the separation of patient and therapist. These therapists believed that it was not necessary to get to the historic origins of symptoms and that it was therefore possible to conclude therapy in a shorter time span. Currently, pressures for shorter therapies remain strong, because of limited time and economic resources (Peake and Meyers, 1997).

Many recent theorists, however, (such as Alexander, French, Malan, Davanloo, Horowitz and Strupp) believe that the therapist should have a fixed contract with the patient specifying the length of treatment and expectations, and should take a more active role during therapy (confronting, questioning, guiding and teaching), and that therapy should focus on the present without relying on the past (Peake and Meyers, 1997).

Transference can also be used with success in the industrial organisational environment. In positive transference change can occur because the consultant is seen as a symbol of hope that things will improve. Conversely, in negative transference change might be resisted because the consultant is viewed as an extension of the “evil leader” (Czander, 1993).

Jung was also interested in the future, and the potential of the individual, in order to gain a complete understanding of him/her. Jung considered neurosis as a difference in degree rather than a difference in kind: the ideal of normality is rarely reached and virtually every personality is somewhat one-sided, but complete dependence on one function or attitude does constitute abnormal behaviour. Jung and his followers turned to the study of mythology and art as more useful methods of revealing the form of the unconscious. In contrast to this, Freud made use of hypnosis and free association. Jung saw self-realisation as the overall goal of psychotherapy. He agreed with Freud that sexuality was the main cause of neurosis in young adults, but, in contrast to Freud, felt that a denial of religious needs in older adults led to neurosis (Ewen, 1998).

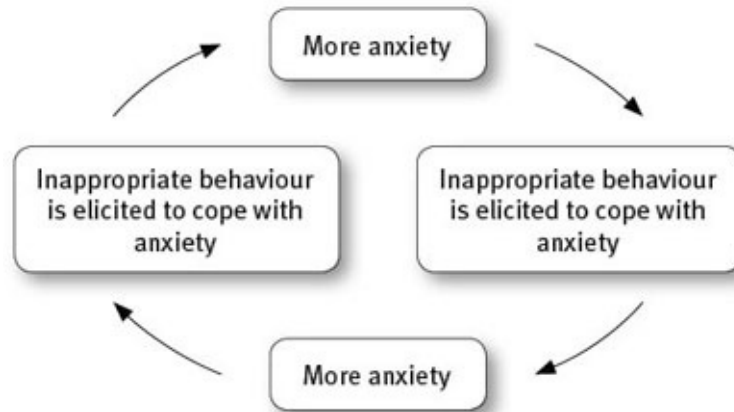
Adler saw neurosis as the result of *feelings of inferiority* leading to self-

absorption and neurosis. One way of overcoming feelings of inferiority is to compensate by overemphasising another form of behaviour. For example, a sickly child may overcome his/her inferiority by working hard and becoming a great athlete. Normal and healthy persons are genuinely concerned about others and their goal of superiority is social, encompassing the well-being of all people. In this context, superiority involves the desire to be competent and effective in whatever one strives to do. The concept is similar to Jung's idea of self-realisation.

Maladjusted people, by contrast, are those who *lack social interest*. They are self-centred and strive for personal superiority and superiority over others. Adler held an interesting notion on how psychopathology expresses itself through work. Pathology is indicated when a person tries to escape an unhappy marriage or social life by becoming a "workaholic", or when a pampered individual is unable to accept a subordinate position (Ewen, 1998).

In accordance with Adler's views, Erikson believed that the inability to choose a vocation during adolescence is indicative of psychopathology. The best way to avoid the pain of identity confusion is to "feed" the ego through a satisfying career. Erikson's view of psychopathology differs from Freud's in that he maintained that pathological symptoms often represent a desperate attempt to develop and retain a *sense of identity*, rather than resulting from some instinctual force (Ewen, 1998).

Horney viewed neurosis as any deviation from normal behaviour, and not necessarily pathological behaviour *per se*. Pathological behaviour occurs only if external social forces, such as poor parenting, block a person's innate tendency towards positive growth. The idealised self becomes a crutch for neurotic persons. They come to believe that they are the idealised picture. This solution brings a temporary reduction of anxiety but in the long run increases it. The attempts by neurotics to live up to the idealised, unrealistic picture of themselves result in new conflicts, and consequently greater tension. This leads to a vicious circle of neurotic behaviour (see Figure 14.6).



**Figure 14.6** The vicious circle of neurotic behaviour, according to Horney.

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Horney was optimistic about avoiding neurotic reactions, and advocated that a secure and loving home would be insurance against the development of neurosis (Schultz and Schultz, 1994). Horney felt that Freud had neglected sociocultural influences in the development of the individual. More specifically, her clinical observations of the differences in personality dynamics between patients seen in Europe and those seen in the United States confirmed the importance of cultural factors. These observations led her to conclude that poor interpersonal conditions of a person's life are at the core of disturbed personality functioning (Hjelle and Ziegler, 1992).

Horney's theory of pathology is also based on the concept of *basic anxiety*. The predominant reason that basic anxiety develops from parent-child relationships is the absence of genuine love and affection. The child responds to basic anxiety by developing a neurotic trend. Neurosis is then not, as Freud had claimed, the result of frustration of the sexual instinct. Horney maintained that sexual difficulty is the result, and not the cause, of conflicts. Horney identified three neurotic trends that are present in all people, but over-accentuated in the neurotic. They are:

- moving towards people (the compliant type who has a strong need for approval and affection from others)
- moving against people (the hostile type who has a constant need to feel superior to others and to exploit other people)
- moving away from people (the detached type who copes with anxiety by becoming distant and independent of others).

According to Horney, the exclusive use of a single type of behaviour, regardless of the situation, is indicative of a neurosis. This view corresponds with that of Jung, who asserted that persons who are pure types display pathology. Research on parenting styles confirms that children can endure considerable stress provided they have a warm and affectionate relationship with at least one caring adult (Engler, 1995).

## **14.9 SUMMARY AND CONCLUSION**

Freud, the main exponent of psychoanalytic theory, explains personality functioning according to the conflicts within and between underlying psychic structures and unconscious processes and drives, past influences and ego-defence mechanisms. The basic structures of personality are the conscious, preconscious and unconscious, with the accompanying components of the id, ego and superego. Owing to repression of threatening contents, especially of a sexual and aggressive nature, into the unconscious, repressed conflicts will be strong motivators of behaviours. Such behaviours may not be well controlled, may demand immediate gratification, and may be in conflict with the realistic requirements of the ego and the norms of society, represented by the superego. Repressed psychological contents and unresolved conflicts might also be expressed through the use of various unacceptable defence mechanisms to cope with the anxieties and demands from the environment. Personality develops along certain psychosexual stages in which need gratification and the solution of conflicts during critical periods in early childhood are important for mature adult functioning (for example, with regard to gender identification, adult attachment behaviours and psychological adjustment). It is interesting to compare Erikson's eight life stages with Freud's stages of psychosexual development. Psychological adjustment is associated with anxieties and conflicts that arise from unresolved conflicts, trauma and fixations from early development, as well as poor social influences.

Jung and other neo-Freudians followed most of Freud's classical psychoanalytic theory, but differ in their more optimistic view of human nature, their emphasis on future directedness, potential growth and the influence of social and interpersonal factors. A valuable later contribution is the theory of object relations which allows an analysis of the person and his/her relations with internal and external objects, for example with a group, an idea, an organisation, a symbol and in infancy, to parts of the body.

The impact of Freud's theory has been favourably compared with the impacts of great scientists such as Copernicus, Darwin and Einstein (Engler, 1995; Flett, 2007; Cervone and Pervin, 2008), especially for its comprehensiveness, its systematic nature, and its applicability. But others also have criticisms against the approach for its pessimistic view of human nature and the difficulties of scientifically verifying vague and mystic psychoanalytic concepts. It primarily uses free association to obtain data and did not develop sufficient measuring instruments for all its interesting concepts (Flett, 2007; Cervone and Pervin, 2008). For example, it is difficult to measure and research a concept such as libido (unobservable energy) and the mythical Oedipus complex (Meyer, Moore and Viljoen, 1997). In contrast, Adler's theory with more clearly defined concepts to be investigated encouraged gerontologists with regard to ideas about the needs of senior citizens. In more recent research, though, the existence of the unconscious was verified (Najstrom and Jansson, 2006). Further progress could be made by a renewed emphasis between psychodynamics with neurology, cognitive and developmental psychology, evolutionary theory, and information and systems theory (Engler, 1995).

However, Freud and some psychoanalytic concepts and assumptions have become household names. People make so-called "Freudian slips", or use terms such as "projection" and "rationalisation". The psychodynamic perspective has made a fundamental contribution to psychological and personality theory, stimulated a body of research, and initiated intuitive and qualitative approaches to assessment, research and therapy (Cervone and Pervin, 2008). In fact, no other theory of personality has the power to capture the uniqueness of people's individual experiences in quite the same way (Lester, 1995; Carver and Scheier, 1996).

Jung's optimistic conception of human nature and destiny, and in particular his concepts of the self, self-actualisation and future-directedness, influenced humanistic theorists of a later generation (Aiken, 1993), for example the work of Maslow. The concepts of introversion/extraversion are part of well-known personality-trait classifications and frequently used in diagnostic and selection devices in the work context. Jung's suggestion that middle age is a time of crucial personality change is widely accepted today and was extended further by Maslow, Erikson and Cattell. Jung's ideas are in part based on oriental religion, philosophy and mysticism which should have meaning for Asian and African psychology. Jung's views also seem more acceptable to women than Freud's ideas about the development of female sexuality, which could be viewed as a

degrading view of women (Schultz and Schultz, 1994).

Although psychoanalytic theories have been criticised for a lack of systematic theory and research, some critical aspects of contemporary psychoanalytic thinking have not only been examined empirically, but also appear to be accurate in the light of available evidence. These aspects include the notions that some mental activity is unconscious, which has an impact on emotion and motivational processes, that patterns of early attachment behaviours might be expressed in adulthood, that multiple unconscious mental processes can produce behaviour, and that individuals differ in the extent to which they are able to regulate their impulses and feelings in socially acceptable ways (Pervin, 1996; Westen, 1998).

With regard to organisational applications, psychoanalysis is used in research, assessment practices, training, and group and organisational diagnoses and facilitation processes. It is said, for example, that the postmodern organisation is more “feminine” – characterised by a culture of being open to others, with an emphasis on interpersonal relationships and a service orientation – as opposed to the previously held “masculine” approach that valued the suppression of doubt and ambivalence, and was single-minded in the pursuit of its goals (Kern, 1999; Brown, 2000; Langs, 2000).

It seems as if psychoanalytic theory, especially Freud’s, is currently as surprising and challenging as when it was first produced. It continues to stimulate a wealth of interest, thought and discourse.

## **14.10 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Which theory proposes that industrial and organisational psychologists should use observed human behaviour to explore individuals’ underlying unconscious behaviour in order to understand conscious behaviour in all aspects of our daily lives?
  - a) psychodynamics
  - b) behaviourism
  - c) intrapsychic reality
  - d) group dynamo
  - e) humanism.
2. According to Freud the ... contains anxieties which are the major driving power behind people’s behaviour and is the basis for explaining

- conscious behaviour.
- a) ego
  - b) preconscious
  - c) superego
  - d) unconscious
  - e) shadow.
3. Attributing negative aspects to others in an attitude of prejudice, rejection and externalisation of negative aspects of oneself is referred to as ...
- a) projection
  - b) splitting
  - c) sublimation
  - d) introjections
  - e) reaction formation.
4. Compared with Freudian theory, object relations theory places more emphasis on:
- a) sexual pleasure
  - b) interpersonal relations
  - c) the importance of the father
  - d) the role of the superego
  - e) the role of the shadow.
5. Which of the following psychodynamic ideas is still important to our understanding of “abnormal” today?
- a) Constructive and destructive thoughts are the basis for abnormal behaviour.
  - b) Abnormal behaviour is learned from experience with other role players.
  - c) Abnormal behaviour has origins in unresolved, childhood experiences.
  - d) Dream analysis produces thoughts which form the basis for abnormal behaviour.
  - e) Through the mandala symbol we determine the causes of abnormal behaviour.

### **Answers to multiple-choice questions**

1 = a; 2 = d; 3 = a; 4 = b; 5 = c

## **Issues for discussion and practice**

1. List and briefly discuss the basic assumptions of psychodynamics.
2. Critically discuss Freud's theory of conscious and unconscious behaviour by explaining the iceberg model.
3. Sigmund Freud's psychosexual theory and Erik Erikson's psychosocial theory are theories of development. Compare these two theories by using the differences and similarities between the developmental stages proposed by Freud and Erikson.
4. For a week, on awakening each morning, and before you do anything else, write down as many of the details of your dreams of the night before as you can remember. At the end of the week, read through the dreams and try to identify common themes in them. Apply free association to each of the elements of the dream to ascertain their particular meaning to you. Then try to determine:
  - a) the needs they try to fulfil
  - b) what the symbols in the dream might mean
  - c) what significance the characters might have for you
  - d) how the dreams end (for example, happily, sadly, undecided).
5. In a group discussion, if you think it has application, explain South Africans' behaviour during the FIFA World Cup according to psychodynamic assumptions of:
  - a) Freud
  - b) Klein
  - c) Erikson
  - d) Jung.

## CASE STUDY

You are a human resource manager. A discontented employee, Thandi Molefe, who has not been promoted to a much sought-after specialist department, comes to see you to discuss the problem. Thandi, who is clearly very upset, tells you the following: She believes that the other person got the job simply because he is always in the office and has a good relationship with the manager, Martin, whereas her own work keeps her out in the field so that her visibility in the office is limited.

Thandi angrily tells you that the boss responds more positively to people who have personalities much the same as his own. Consequently, he only employs people who, like himself, are sociable and make friends easily. Thandi also mentions that there is evidence that sociable people get preference in this department. She says that two of her male colleagues who play golf with the manager have also been promoted. She makes no mention of introverted people who were also promoted. Thandi also feels that Martin often treats her like a child and does not allow her to become independent in her work.

As the human resource manager, you speak to Martin. Martin states that he is sceptical about Thandi's ability to progress. From his experience, he feels that this is a politically motivated request and that if he conceded, he would have to grant promotion to another of her colleagues. As human resource manager you have another discussion with Thandi. Towards the end of the discussion she says that she is actually more suited for a post that will become available in another department in the near future and that this post would offer more opportunity for promotion and better pay. Thandi also indicates that the other department is more diverse, and seems to value the work contributions made by all its staff members.

- 
1. Explain both people's reactions with reference to the concepts of psychodynamic theory.
  2. Explain, if applicable, how psychosexual stages are relevant in understanding Thandi's personality.

3. Explain, if applicable, how Erikson's psychosocial stages are relevant in understanding Thandi's personality.
4. Explain, if applicable, how Klein's part and whole object relations are relevant in understanding the interaction between Thandi and her boss, Martin.
5. With regard to motivational concepts, explain Thandi's behaviour.
6. As human resources manager in this organisation, what psychodynamic assumptions have you used during your work with Thandi and Martin?

## **CHAPTER 15**

# **Personality by learning**

*Ziel Bergh*



## [Introduction](#)



## A background to the behaviourist view of human nature



## The main assumptions of behaviourist theories

15.4

Response patterns in personality structure

15.5

## Motivation

15.6

[Learning in personality development](#)



[Learning and psychological health](#)



## Summary and conclusion



## Assessment activities

## Learning Outcomes

After studying this chapter, you should be able to:

- explain the behaviourist view of human nature
- describe the main assumptions of behaviourism or learning perspectives
- explain personality structure according to learned responses
- discuss learning principles in human motivation
- explain how the person and environment contribute to personality development
- use concepts and examples to illustrate the role of self-control in human behaviour
- explain how faulty learning influences psychological health.

### 15.1 INTRODUCTION

There are many examples of how and why people behave as they have learnt to do in their environments: someone not being initially afraid of, but becoming afraid of, insects, someone starting to use drugs because his/her friends do, children talking as their parents do, a student obtaining a driver's licence after several lessons and repetitions, a learner obtaining better examination results with more study sessions and more rest periods, and people more or less following the same routines every day.

These examples illustrate the behaviourist or learning theories (refer to [Chapter 5](#)). Learning assumptions are applied with much success in the field of psychological assessment, education and training, motivation, therapy and counselling, and in marketing psychology. The positive and negative effects of learning on human behaviour, and the valuable applications of learning principles, make it necessary for psychologists to obtain knowledge and competency in learning psychology.

The *aim* in this chapter is to explain how learning and related processes are involved in various personality processes, and what their value is in the work context.

### 15.2 A BACKGROUND TO THE BEHAVIOURIST

## VIEW OF HUMAN NATURE

The behaviourist or learning theories, especially the classical theories, consider *behaviourism* as the objective study of *observable human behaviour*, which can be observed in how people respond to stimuli from their environments. Personality develops through a *learning process*, and is characterised by and recognised in patterns of responses or behaviours that are conditioned or learned, and reinforced or rewarded, through influences in the environment. Behaviourists believe that people's existence is dependent on their abilities to repeat those behaviours that are needed in their environments in general and for specific situations. Later behaviourist perspectives, especially the social-cognitive theories, extended the classical learning principles to recognise that people have *considerable control or self-regulation* that enables them to influence the environmental stimuli and their behaviours. Although some behaviourists recognise processes inside people or try to interpret such phenomena, they believe that such factors are not observable and controllable enough, and are too obscure for scientific study and assessment. Classical learning theories also do not admit the existence and manifestation of personality traits, because these cannot be observed in overt behaviour.

Behaviourism, especially as posited by the early theorists, opposed the psychoanalytic emphasis on the unconscious and past events, as well as Wilhelm Wundt's assertions of consciousness and introspection. In contrast to psychoanalysis, in which the main assumptions are based on interactions between therapists and patients, learning principles and laws were established through accurate natural observation, and especially through controlled experimental designs and other behavioural assessments.

Behaviourists' early assumptions about stimulus and response also made the behaviourist view that human behaviour is controlled by certain stimuli and external reinforcers somewhat pessimistic and mechanistic. The behaviourists' strong emphasis on environmental influences in the shaping of personality is as deterministic as a psychoanalyst's emphasis on unconscious, unobservable factors, which may create the idea that people are quite helpless and not in control of what happens.

But contrary to many misperceptions about the control of human behaviour by learning approaches ("brainwashing") and to joke about people being conditioned like animals (such as mice and Pavlov's dogs), behaviourist assumptions and techniques contribute much towards the better understanding of

human behaviour, and they have wide application. Important contributions to behaviourist theories are Charles Darwin's ideas on evolution, British empiricism, Ivan Pavlov's research on conditioning (the forerunner of behaviourism), and the work of John B. Watson, Edward Lee Thorndike, Clark L. Hull and Edward C. Tolman. Other important contributions include the radical and objective behaviourism of B. F. Skinner, the more subjective behaviourism of John Dollard and Neal Miller, and the social-cognitive learning approaches of Albert Bandura, Walter Mischel and Julian Rotter (Bandura, 2001; Eysenck, 2004; Maltby, Day and Macaskill, 2007; Cervone and Pervin, 2008).

Behaviourist theories can basically be classified into two types.

*Type 1 includes classical or radical behaviourist perspectives* as promoted by Pavlov, Watson (the father of behaviourism) and in some respects Skinner, in which personality and behaviour are viewed rather mechanically. Personality, like animal behaviour, is determined by *learning or conditioning processes*, according to stimuli that elicit responses (the S-R principle). People learn to react to stimuli because certain behaviours are rewarded or punished. Personality can be studied only through observable behaviours. It is an association between stimuli and responses.

*Type 2 includes the social learning or social-cognitive theories* represented by authors such as Woodworth, Tolman, Guthrie, Hull, Skinner, Bandura, Walters, Rotter, and Dollard and Miller. The important difference from the classical behaviourists is the recognition that the person (or organism) and his/her characteristics mediate between the stimuli (S) and responses (R), thus giving a more interactive relationship between people and environments (S-O-R) (interactionism). People will react to stimuli not only involuntarily or because of reinforcement, but also because of the motivational value of certain stimuli and behaviours, as well as people's *cognitive control*. These award people the powers of self-regulation to influence the stimuli and their responses. People are therefore more in control of events, through internal motivation, perception or observation of others, personal competencies, expectancies, self-control, and other cognitive processes (Funder, 2001b; Eysenck, 2003). Thus this type of behaviourist theory also includes social, cognitive, relational and emotional aspects, as well as a self-system, in its explanation of personality as something inside a person. It does not stress responses alone.

## 15.3 THE MAIN ASSUMPTIONS OF

# BEHAVIOURIST THEORIES

Although differences exist between some of the behaviourist or learning theories, the main assumptions of behaviourist theories can be summarised as follows.

## 15.3.1 Observable behaviour

Human personality can best be studied by means of objective observation of external and *observable behaviours* through methods such as controlled experiments and observations in natural settings (field studies), physical measurements of behavioural responses, and the checking of behaviour on checklists and questionnaires. It follows that behaviourists see personality study as an empirical science, characterised by careful research design (involving people and animals), objectivity, accurate measurement, and the testing and verification of hypotheses. However, some behaviourists agree that human behaviour might be the result of factors other than external environmental determinants, for instance information beyond awareness levels and biological drives.



**Figure 15.1** Behaviourism: Learning by observing.

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## 15.3.2 How environments and situations shape behaviour

Human behaviour is directed, controlled and formed by environmental and situational influences, and this is referred to as the *nurturing factor* of personality and behaviour (Pervin, 1996). People are conditioned to respond in certain ways to various types of *environmental and situational stimuli*. Stimuli from the environment may be fairly simple or more complex, some might be well known to people and others not (for example, internal biological needs). Some behaviourists acknowledge intrinsic factors, such as inherited factors or unconscious motives, in the person in determining at least some behaviour. For instance, Hull, and Dollard and Miller (in Cervone and Pervin, 2008), describe biological or innate drives as stimuli that could be sufficiently strong to trigger responses from people. The more recent behaviourists, such as Bandura in his social-cognitive theory, are very much part of the person-situation controversy in psychology – that is how the person or personality, situations and behaviour all or unilaterally influence each other and in combination contribute to the consistency or changes in behaviour (Bandura, 1999; Funder, 2001b; Cervone and Pervin, 2008). Bandura (1999), for example, in his social-cognitive theory argues very strongly that human behaviour can only be understood and predicted if specific situations (situation specificity) or the context of a person's functioning are considered.

This issue is also important in trait psychology (personality according to specific attributes), which is why in more recent personality questionnaires respondents are required to answer the questions or items with consideration of a specific context, such as the work context. The implications for work applications is that, if processes such as learning, performance and consumer behaviour are better analysed in terms of what competencies are best in which situations, it will be possible to improve the design of such interventions, resulting in much better outcomes.

Though behaviourists do not deny genetic influences, they place lesser emphasis on genetic or biological influences (nature) and past experiences (see the box below).

### **Watson's view on genetic influences**

Behaviourism's lesser emphasis on genetic influences is clear from the following statement by Watson (Schultz and Schultz, 1996, p.274):

Give me a dozen healthy infants, well-formed, and my own

specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select – doctor, lawyer, artist, merchant-chief, and yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations and the race of his ancestors.

Behaviourists place lesser emphasis on genetic or biological influences because the genes or genotype are not directly observable, except for their effects on physical appearance (phenotype). However, in their emphasis on drives as internal tension states, it is clear that behaviourists recognise the activation of behaviour by biological factors. The influence of human history and the past is acknowledged in the recognition of response patterns and acquired social drives as being accumulated from environmental and genetic influences. *Behavioural genetics*, the study of the influence of genetics on behaviour, involves both environment and genetics. Plomin, for example, did important research to indicate how shared environments (such as those of children of the same family) and unshared environments (such as those of children who are not treated in the same way by parents or are separated) influence behaviour in different ways (Plomin and Rende, 1992).

The interaction between environment and genetics can be complex and is determined by how an individual with his/her genetic attributes reacts in and forms environments, or by whether an individual is a passive receiver of environmental stimuli. The relative influence of genetics and environments on personality is also studied by the researching of close genetic associations, for example twin studies (monozygotic twins, and less-close genetic associations, as in dizygotic twins), single-born children and adoption family ties.

### **15.3.3 Personality expressed in learned responses**

For behaviourists, all human behaviour (including emotions and self-expressions) and personality development are no more than learned responses and habits aroused and strengthened by environmental factors. Learned responses apply in specific situations, for example, where they have been acquired through a person's development history as a result of either positive rewards or punishment, though the latter is mostly discouraged. This process also determines uniqueness and individual differences with regard to a wide

range of behaviours in and between people, because people will learn differently and be influenced differently by stimuli.

*Learning* is an association or conditioning process of controlling stimuli from the environment, people's responses and the rewards or punishments they get as a result of certain responses. This relationship is referred to as *S-R*. In other words, stimuli cause or control the organism (person) to respond to certain stimuli.

The *S-O-R principle*, however, recognises that people (organisms) and their characteristics have an intervening effect between the stimulus and the response. Learning patterns of behaviour or learned responses characterise a person's personality. People react in certain ways to particular stimuli or in particular situations because they have learned to do so. In this sense past learning experiences do influence present and future behaviour. Learning explains simple behaviours and more complex behaviours. As people develop, learned responses accumulate, which allow them to function at higher and more complex levels. It is also possible for some behaviours to be "unlearned" or extinguished under certain conditions, for example, if a person wants to stop smoking or cursing, because such behaviours are not rewarded. This principle is utilised in training and therapy in which people are taught not to react in certain ways, usually by substituting one form of behaviour for another. Positive and negative behaviours, emotions, and social and work performance are the result of learning, whether the learning is correct or incorrect.

#### **15.3.4 Self-control**

The social learning and social-cognitive theories, such as those of Dollard and Miller, Mischel, Rotter and Bandura, recognise that people are "co-shapers" of their personality. People have powers and standards of control and self-control, and self-efficacy (this last term meaning they believe they can do certain tasks). Through cognitive *self-regulating behaviours* they can control and influence their own behaviours and their environments. Bandura (1999, p.154) stated, "People are self-organising, proactive, self-reflecting, and self-regulating, not just reactive organisms shaped and shepherded by external events (as in the 'older' behaviourist approach)." This is illustrated by cognitive concepts such as *cognitive schemas, locus of control, self-efficacy, learned resourcefulness, self-monitoring, imaging, self-guides, expectancies and self-control* (Bandura, 1977b, 1986, 2001; Pervin, 1996), concepts which are also part of the language of *positive psychology* (Snyder and Lopez, 2002; Snyder and Lopez, 2003; Nelson

and Cooper, 2007) and are used to assess positive aspects in human behaviour and facilitate optimal functioning in people. These concepts may also indicate individual differences, depending on how people think differently about themselves in relation to others and the world (Maltby, Day and Macaskill, 2007).

### **15.3.5 Learning and unconscious factors**

In general, learning approaches, especially those of classical behaviourism, do not recognise unconscious factors in personality functioning. However, the fact that authors such as Dollard and Miller took the trouble to explain psychoanalytic concepts might indicate recognition that “unobservable” stimuli are more important than some behaviourists would like to acknowledge (Maltby, Day and Macaskill, 2007). Their explanation of people’s tendencies not to think about, or to avoid, unpleasant stimuli, is in essence similar to Freud’s concept of repression, although they explained learning not to think about certain stimuli as a conditioned response, and not as an unconscious motive. In later developments in cognitive influences in learning, some authors also referred to *unconscious cognition* or *non-consciousness* to indicate that much of people’s thinking happens at a level of “unawareness” of information. This thinking was called *parallel processing*, as opposed to conscious thinking about information, which was called *sequential processing*.

This distinction is more or less similar to Freud’s concepts of primary and secondary processes in thinking. An example of non-conscious information processing is provided by research on *subliminal perception*: it has been shown that people learn although stimuli might be below their conscious levels of awareness, that is, even if people do not see or hear stimuli (Greenwald, 1992). Another example is when a person “sleeps on a problem”, and then finds he/she has a solution for the problem.

## **15.4 RESPONSE PATTERNS IN PERSONALITY STRUCTURE**

Although behaviourists in general do not describe *personality structure* in depth, they use various response or behaviour concepts to indicate the consistent characteristics of personality. *Responses* are learned or recurrent patterns of behaviour and habits that characterise personality, and which people use to act on stimuli and in situations. Response patterns also provide consistency in

personality and behaviour. Because they render people's behaviour predictable, one tends to learn what to expect from particular people in particular environments and situations, or what demands or challenges certain stimuli will provide. Responses are conditioned by *reinforcers* (stimuli). If such reinforcement follows a response, it will increase the chances that such a response will repeatedly occur. Response patterns are described in various ways and for many situations.

Skinner refers to consistency in behaviour as *response tendencies*, of which respondent behaviour is behaviour that follows on from particular known stimuli from the environment. Respondent behaviour can be:

- a simple, automatic or involuntary response, such as a reflex eye blink when a person is startled by a red light flashing on a machine
- a complex response, such as solving a mathematical problem, as a result of more complex stimuli.

However, the *stimuli* or *operants* that really force responses from people are those internal to people, because of their biological nature. Some behaviours in people occur without stimuli necessarily eliciting such responses. According to Skinner, many human behaviours occur spontaneously or involuntarily because of environmental stimuli, and such behaviours are shaped or modified if the environment reinforces such behaviours. *Positive reinforcers* or rewards are generally used to structure people's behaviours, but *negative rewards*, such as punishment, can also be used to make people avoid or perform certain types of behaviour.

In contrast to respondent behaviour (classical conditioning), operant behaviour has an influence in the way a person responds or influences the environment. Response tendencies and hierarchies of responses are the result of many learning experiences and can be related to many types of stimuli or situations. For instance, when people go for job interviews, they might react in various ways based on previous learning experiences, or through trial and error (see Table 15.1). Thus, in operant reinforcement, personality develops as a result of the consequences of reinforcement, and not because of the reinforcement or stimuli in itself.

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Table 15.1

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#### A hierarchy of response tendencies

Stimulus of arriving for a job interview	Possible hierarchy of responses: <ol style="list-style-type: none"><li>1. Not honouring the appointment at all.</li><li>2. Leaving a message that one might be late.</li><li>3. Phoning and cancelling or postponing the meeting.</li><li>4. Keeping the appointment, but with reservations.</li><li>5. Keeping the appointment with much self-confidence.</li></ol>
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This idea can be tested by listing typical behaviours that might manifest in certain situations. By recalling what really happened in one or more of the situations, it can be determined whether one reacted differently, allowing one to consider what factors caused any changes in behaviour.

A variation of the response idea, to indicate the consistent conditioned or acquired behaviours in personality, is the concept of habit, proposed by Hull, and also used by Dollard and Miller. *Habits* form because of *drive reduction* – if certain internal and external drives (stimuli) are satisfied, such behaviours might become habits. Some adult behaviours are no more than learned habits that are activated by primary drives (biological needs) and secondary drives (needs formed from the satisfaction of primary drives, such as achievement). Habits are formed, maintained and discarded by reinforcement. Habits are discarded when they no longer serve a purpose either as responses or as reinforcers, and thus do not satisfy human drives. Habits in themselves can become secondary drives and represent response patterns or hierarchies of responses.

Later learning theorists, such as the social and cognitive learning theorists Mischel, Bandura and Rotter, do not clearly designate structural concepts, because they primarily emphasise the motivation of behaviour through social-cognitive processes. According to Meyer (Meyer, Moore and Viljoen, 1997), later learning theorists' emphasis on personality as a function of the interaction between person and situation might render person and situation as structural personality concepts. A better option is to view these authors' concepts for motivation or personal control of the environment and behaviour (such as previous experiences, incentives or reinforcement values, expectancies, competencies or efficacies) and cognitive abilities (such as thinking, symbolising, planning and encoding strategies) as structural concepts.

In terms of personality structure, *consistency* is one of the “ideals” of

personality researchers. If specific or general personality attributes and behaviour can be verified as enduring across cultures, time and situations, then it is possible to predict behaviour. Mischel's work on *situationism* (Mischel, 1984) claimed that personality and behaviours can be situation-specific, an assumption that is now generally accepted (Funder, 2001a). The person-situation issue is an ongoing controversy, with an acceptance that, except if analyses are more specific, similarities between people and consistency of behaviour over longer periods might not be as consistent as has been asserted by some theorists and researchers (Kenrick and Funder, 1991; Schmitt and Borkenau, 1992; Pervin, 2000; Barrick and Ryan, 2003).

### **Similar meanings, different concepts?**

Structural concepts in learning, such as *responses*, *habits* and *response patterns* denoting the characteristic and consistent behaviour of people, have much the same meaning as:

- psychoanalytic and phenomenological concepts of *ego* or *self*
- the cognitive theories' concepts of *constructs*
- the idea of *traits* as proposed by trait psychologists.

## **15.5 MOTIVATION**

Behaviourists explain human motivation through general reinforcement, schedules of reinforcement, shaping of behaviour, primary and secondary drives, habits, and various concepts that indicate cognitive control. The essence of motivation is that people will learn and repeat expected behaviour, and improve on it, if their efforts are rewarded in some way (see [Chapters 5](#) and [8](#)).

### **15.5.1 Reinforcement**

There are variations in learning approaches to the dynamics or motivation of behaviour (Maltby, Day and Macaskill, 2007; Cervone and Pervin, 2008). The older or classical theories emphasise learning through conditioning, reinforcement, consequences of behaviour, and environmental influences. The later social and cognitive learning theorists do not emphasise learning by reinforcement only, but strongly emphasise the interaction between people and their environments. They stress that people can use their own social and

cognitive competencies to influence events and the consequences of behaviour, and that observational and social learning is more important than conditioning and reinforcement only.

In general, behaviourists agree that behaviour is motivated and directed by *conditioning* or *reinforcement processes* in the learning of responses. Responses are activated by particular internal stimuli in people (drives) or external stimuli from the environment. Behaviour is shaped and maintained through positive reinforcement, such as praise for an employee, which the person finds pleasant. Positive reinforcement stimuli cause such behaviours to be repeated. However, expected behaviours can also be reinforced by negative reinforcement stimuli or aversive stimuli, such as disciplinary action against an employee, or threats of dismissal. If particular behaviours no longer serve a purpose or are continually discouraged, responses could be extinguished.

It is important that human resources practitioners and professionals are aware of how employees differ in respect of reinforcement and related factors, and how different personalities react. This awareness will influence how management facilitates behaviour in the work environment, and how it uses performance outcomes to improve work performance and productivity. In these areas, however, relatively little research on personality variables has been done, the exception being research on the locus of control and self-efficacy. A reason for this neglect might be that motivational interventions in organisations are often generalised to groups or organisations as wholes, and not differentiated in terms of each employee's reinforcement preferences and specific situations. Social-cognitive learning approaches explain motivation through cognitive concepts such as self-reinforcement, self-regulation, self-efficacy, locus of control and expectancy – all acquired behaviour patterns that help people to achieve in specific situations and using goal setting behaviours.

In work practices, *partial reinforcement* is also applied, for example, by using schedules of reinforcement such as regular rest periods, shifts and salary increases. In training and work design, the principle of reinforcement shaping is applied when employees are trained to execute tasks in stages or smaller elements, and rewarded accordingly. Further approximations may consist of more and larger tasks.

### **15.5.2 Habituation**

Perhaps the simplest form of learning and motivated behaviour is the *forming of habits*, which refers to behaviours that are ingrained and occur more or less

spontaneously, or without the person really considering the consequences. If an incoming stimulus is infrequent or unimportant, one tends to forget or ignore it. For example, a person might cease to be bothered by the noise of a neighbour's barking dogs or the noise from people working in the next office. In these cases the stimuli never become learned and ingrained as habits. In contrast, habits can become ingrained or learned when the initial stimuli are frequent, important or coupled to emotions. For example, in violent societies, crime, aggression and violent acts might become habits, because people's emotions are blunted and they become used to such acts as a result of seeing them repeatedly. Rape, theft and murder, for no apparent reason, might become negative habits in violent societies.

*Habituation* can also motivate social and work behaviours, for example, a person's shyness because he/she cannot get used to strangers, a person's late arrival at work, a person's acquisition of a blasé attitude towards pleasant activities such as watching TV shows, or married couples becoming bored with each other because they know each other so well.

### **15.5.3 Drives as activators**

According to learning theories, drives are *stimuli that activate particular responses* from people. Concepts from other theories, such as needs, instincts and motives, tend to convey the same meaning of internal or external forces eliciting and maintaining motivated behaviours (for instance, think of Maslow's need hierarchy, Murray's manifested needs, Rogers' self-actualisation and Freud's instincts).

According to drive theorists, such as Hull, *drives* are internal biological states, but also acquired social states, which cause tension or stress that motivates people to act in ways to reduce, dismiss or change the tension. In this sense drive theories emphasise *homeostasis* (creating balance or stability in behaviour). Examples of this would be eating only when hungry or completing an assignment or task to be approved by parents or supervisors. This also illustrates the idea of reducing tension. Drives, however, do not sufficiently explain *heterostasis*, or the tendency in people to grow and to continually develop themselves. Drive concepts also assume that motivated behaviour follows from a state of drive or tension, such as being hungry, whilst it is known that people often eat without necessarily being hungry. They also do extra work without necessarily having to do it. Why, for example, do creative people write, model, draw, design and invent?

#### 15.5.4 Conditioning processes

*Classical* or *respondent conditioning* takes place when a response is caused by a specific identifiable stimulus. Such responses are mostly automatic or involuntary, such as blinking an eye in sudden bright light, and might not explain new behaviours. It is possible to use other stimuli to obtain the same response, for instance sounding a hooter to get an eye to blink, without the light being bright at all.

Classical conditioning also has a role in more complex human behaviours such as phobias and fear. Examples of this are the mining operator who has developed claustrophobia (fear of confined spaces) underground, and generalises this to other small spaces, or the motorist, traumatised after being mugged or robbed at gunpoint, who develops intense fears about driving or visiting shopping centres. In all these cases the stimuli (the sharp light, the hooter and confined spaces) serve as reinforcers for certain responses to occur again with the same, a similar or a substitute stimulus. In these cases the behaviours become stimuli that might be triggered in certain situations. In this way, particular environments, situations or even people serve as conditioned stimuli to certain events. Why, for instance, are some employees always aggressive or dependent in the workplace, and why do certain people always irritate others at work?

*Operant* or *instrumental conditioning* can be viewed as *reward or consequences learning*. In Skinner's opinion, operant conditioning describes responses or behaviour that might be spontaneous or voluntary without clear, identifiable, eliciting stimuli. However, people do not react only passively to stimuli or their environment. Responses or behaviour can be shaped and maintained because of the consequences or effects, rewards or value of the association between stimuli and responses (the Law of Effect). For example, completion of a task might bring recognition and financial rewards. For this reason an employee might make it a habit to complete all tasks to the best of their ability whilst expecting particular outcomes. In contrast, if behaviour in response to certain stimuli leads to unpleasant or less-satisfying outcomes, such behaviours might cease or decrease.



**Figure 15.2** Classical or operant conditioning?

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Operant or instrumental responses are performed by people to obtain certain results and to influence and change environments. One might ask whether employees who procrastinate obtain rewards (such as avoiding responsibility, getting help or creating an image of suffering from work overload) through procrastination. It is possible to explain most work performance through instrumental reinforcement, in that employees' behaviour is modified if they experience rewards or reinforcement continually. If an employee's rewards and reinforcement are based on his/her performance (for example, higher pay for more units produced per day), it is a possibility that work performance might increase. However, this relationship is dependent on each individual's preferences, values and expectancies, and on how he/she interprets or chooses situations that are rewarding.

### **15.5.5 Person-environment interaction, cognitive control and behaviour regulation**

Possibly the strongest argument of learning theorists for motivation (and personality development) is the influence of various types of environmental factors and people's interaction in and with the environment. The interaction between people and the environment, especially their freedom and powers to influence the environment and *regulate* their own behaviours, is strongly emphasised by social and cognitive learning theorists such as Bandura, Rotter,

Mischel and Meichenbaum (Carver and Scheier, 1996; Ivey, Ivey and Simek-Morgan, 1997; Pervin and John, 1999; Eysenck, 2004). In contrast to the traditional behaviourist theories, the *social-cognitive perspectives* emphasise that behaviour is reciprocally influenced by feelings, thoughts, physiological processes and the consequences of behaviour. Well-known concepts in this regard are expectancy, valence, beliefs, locus of control, learned resourcefulness, self-efficacy and goal-setting, which are also important concepts in positive psychology (Snyder and Lopez, 2002).

Although many environmental factors directly elicit responses from people (*situationism*), the interaction between people and all their characteristics (*interactionism*) is more important, because interaction determines the control people exert in their behaviour through their thinking, imagination, feelings, attitudes, perceptions and expectations. Bandura (1986) coined the term “reciprocal determinism” for this process of interactional influence between a person’s characteristics, situation and observable behaviours.

#### **15.5.5.1 Positive behavioural concepts**

Rotter refers to *psychological situations* as situations that are very important to an individual, which can be classified together with other situations and which might be rewarding to such an individual but not to others (Allen, 1994). For example, one employee might see work as relaxation and enjoy it together with many other forms of relaxation, whilst for another person work is nothing less than monotonous, as are other uninteresting activities. The more recent social-cognitive psychologists note that it may be possible to define and classify very specific situations or *signature situations* in which particular people behave in particular ways, or to establish particular signature behavioural profiles of people and in certain situations (Funder, 2001b; Barrick and Ryan, 2003). This is similar to trait psychology’s efforts to predict the relationship between some traits and work-related attributes and situations.

An important idea in this interaction between the individual and environment, in addition to the idea of *reinforcement*, is the notion of the mediating effect of self-regulation or *cognitive control*, emphasised by Rotter, Mischel, Bandura and others: that people perceive, interpret, think and judge stimuli and rewards, and how they want to react. Cognitive control enables people to expect and predict outcomes, and to decide which behaviours to use in situations. Mischel and Ebbesen (1973), for example, described *self-regulatory plans* that denote a person’s repertoire of behaviours for specific and different situations, and if and

when such situations change and demand adjustment in behaviour. Kitsantas (2000) found successful weight loss in persons who applied self-regulatory strategies and had self-efficacy beliefs. Similar ideas are to be found in cognitive and social-cognitive concepts such as schemas, beliefs, attributions, self-guides, self-monitoring, attribution and Kelly's ideas of personal constructs. According to Bandura, self-regulatory processes are important for self-reinforcement (internal valuing), self-censorship, self-evaluation (reactions to one's own behaviours in order to establish self-satisfaction) and a sense of self-worth. Thus self-regulatory processes allow one to establish a healthy "self", which is Bandura's preferred view of what personality is (Bandura, 1999).

Central to the idea of being in control of the consequences of behaviour, is the concept of expectancies, recognised by many learning theorists, such as Rotter, Walter, Mischel and Bandura. *Expectancies* are people's beliefs that particular reinforcement or consequences will result from particular behaviours in particular situations. Expectancies and related learning concepts might be the same as what others call "positive thinking," "goal setting behaviours" or "self-actualisation," and are related to a type of response pattern that people often refer to as "self-image" or "self-evaluation."

Expectancies can be influenced by particular *incentives*, that is the values people allocate to particular behaviours or outcomes (reinforcement values), or how much people want particular consequences in particular situations. For some people it might be important to achieve in all situations, whilst for others only certain situations matter. When people believe that their behaviour or the expected outcomes apply to many, all or new situations, they might generalise their expectancies to all these situations. This idea of *generalised expectancy* is similar to Kelly's idea that people's personal constructs have "construct validity", that is the meaning of particular behaviours might be applicable in specific and related situations (see [Chapter 18](#)).

Rotter (1966, 1975, 1990) coined the term "locus of control" to explain people's expectancies that outcomes of their behaviour (reinforcement) can be or are controlled. People who strongly believe that they have control over what they accomplish because of their personal behaviour and competencies are referred to as having an *internal locus of control* (they are *internals*). In contrast, people whose behaviour is reinforced by expectancies that their accomplishments are ruled by luck, fate, other people and circumstances, have a *high external locus of control* (they are *externals*).

This concept of *locus of control* is an area of much research and assessment in

psychological disciplines, for example, Rotter's own internal-external (I-E) scale. It has been influential in the development of many other related measurement scales and the creation of many other concepts that relate to personal control. Examples of related concepts are *personal hardiness* (Kobasa, 1979), which refers to people's beliefs that change, for example, is a challenge, and that they can control or influence events and their commitment to activities.

Locus of control is very much integrated and applied in occupational behaviours (Furnham, 1995), such as motivation, job performance, job satisfaction, leadership and management, job perceptions, retirement, unemployment, career choice, leisure and turnover.

### **Internals and externals: Different reactions?**

Most research on internals and externals suggests that they react differently in most situations. Internals are more successful in several work-performance variables (in Furnham, 1995; Cloninger, 1996) because they are more self-sufficient in planning and executing tasks, are easier to motivate, and take responsibility for decisions and outcomes. It is also possible that internals might be more prone to stress or substance abuse. However, they may also be more successful in solving such problems. Research on psychological adjustment indicates externals are more vulnerable to psychological maladjustment (Ormel and Schaufeli, 1991).

*Self-efficacy*, a concept coined by Bandura (1977; 1999), refers to people's convictions or judgements that they are competent or can successfully carry out the behaviours needed to produce the expected outcomes. Self-efficacy then is coupled to outcome expectancy, in other words, expectancy that particular behaviours will lead to particular or desirable outcomes (Cervone and Pervin, 2008). Self-efficacy may be a general tendency, but is more a unique type of behaviour different for each person, depending on the situation (it is situation specific). The possible existence of ethnic differences might be an interesting research topic. Self-efficacy is related to many areas, such as:

- academic and educational behaviour (Multon, Brown and Lent, 1991)
- career choice (Lent and Hackett, 1987)
- health behaviours (O'Leary, 1991; Carlisle-Frank, 1991; Dennis and

Goldberg, 1996; Flett, 2007)

- task performance (Stajkovic and Luthans, 1998)
- personality traits (Caprara, Barbaranelli and Pastorelli, in Eysenck, 2004; Flett, 2007)
- emotionality (Judge and Bono, 2001).

### **How self-efficient are you in coping with stress?**

Using a scale of 1 to 4, rate yourself with regard to how you cope in life on each of the following items (with “1” showing very low self-efficiency, and “4” showing very high self-efficiency). The higher the mark in each sub-section and on the total scale the more self-efficient you are in these coping behaviours.

**Efficient by solving the problem:**

*Confrontive style*

- I take chances and take risks.
- I take a stand and fight for what I want.

*Planning style*

- I follow a planned procedure.
- I use different solutions to solve a problem.

*Looking for social support*

- I talk to other people who can help to solve a problem.
- I find out what others did about such a problem.

**Efficient by eliminating unpleasant emotions:**

*Self-control*

- I keep my feelings to myself.

*Avoiding*

- I wish problems would go away or be solved in some way.
- I try to feel better by actions such as eating, smoking, drinking and medication.

*Seeking emotional support*

- I look for sympathy and support from other people.

*Distancing*

- I go on as if nothing has happened.
- I convince myself that things are not as bad as they seem.

*Taking responsibility*

- I accept that it is my problem and that I will handle the problem better next time.

### *Rethinking the problem*

- I think about what is important in life.
- I reflect and try to grow as a person.

Source: Adapted from Folkman (1986)

Scales have been constructed for the measurement of self-efficacy as a general construct or for situation-specific applications, such as particular careers and specific occupational activities (Schunk, 1989; Bores-Rangel, Church, Szendre and Reeves, 1990).

Self-efficacy might be one of the most powerful self-regulatory mechanisms to improve performance behaviours. Self-efficacy touches on people's self-evaluation and intrinsic motivation to be in control and to realise their potential. The items in the above mentioned box illustrate self-control thinking, behaviours and even inner speech regarding ways of coping. In the work context, self-efficacy might be encouraged in low achievers by the inducing and rewarding of a sense of performance accomplishment, so that these employees experience what success is. Some ways of doing this are to show someone (a role model) working successfully, decreasing the fear of failure or success by exposing the employee to a successful performance event, and teaching the employee to relax, to think positively, and to use self-instruction, such as setting obtainable goals.

The emphasis on self-control is also evident in the social-cognitive learning theories' emphasis on learning through vicarious or observational reinforcement (Carver and Scheier, 1996). *Vicarious learning* means social learning from observing others (models) whilst they perform certain behaviours, such as experiencing strong emotions, assisting someone in a friendly manner, or completing a task adequately. In principle, observational learning is similar to the person-centred approaches in humanistic psychology in which experiential learning is emphasised. Both imply self-reinforcement or feedback from the person to him-/herself by talking and thinking positively or giving self-praise or negative self-reinforcement and punishment, when people correct themselves by self-criticism.

In contrast with *learned resourcefulness* (the acquired behaviours and skills utilised to practice self-control of one's own behaviour in order to achieve, solve problems and enjoy activities), self-efficacy and a positive locus of control, the concept of *learned helplessness* (Pervin and John, 1999) indicates people's real

or perceived inability to be in control of their lives in general or regarding specific events, as a result of negative reinforcement of self-control or a perception of helplessness. In the same way, many fears of physical objects can also be learned by reinforcement processes. The fear of success and failure is described as a self-handicapping psychological fear. As a result of early learning experiences, such as too much emphasis on excellence and high expectations or criticism in successful or unsuccessful situations, people might perform in ways to avoid either success or failure (Lay, Knish and Zanatta, 1992; Cloninger, 1996).

The principles of reinforcement and learning are often applied in the work and organisational context, as when management either manipulates the stimuli in the work environment (such as the design of jobs, reward structures, and management and organisational changes) or tries to influence employees' outputs by training, performance appraisals and, possibly, threats of dismissal (see the box below).

### **Threats of dismissal: Is negative reinforcement successful?**

It seems as if punishment or negative reinforcement is seldom effective in influencing employees' outputs. It might be better to reward desired behaviours and initially ignore undesired performances. It is also more effective in many cases to try to change or influence smaller tasks first (shaping of behaviour) in a sequence for the progressive improvement of total work performance. It might, for instance, be wise first to support a typist to be totally computer literate before expecting him/her also to be effective in filing, reception and general clerical tasks. It is also advisable to reward good performances as soon as possible, and to be aware of factors in the work environment that might influence individuals differently. Rewards based on consequences of behaviour should be clear to all employees.

## **15.6 LEARNING IN PERSONALITY DEVELOPMENT**

Key concepts in learning-development approaches are *social reinforcement*, *critical situations*, *identification*, *modelling* and *imitation*. Personality forms and changes as a result of various learning processes and their consequences. However, many human behaviours, such as physical growth, movement, talking and sexual maturity, are regulated by genetic and biological processes over which people do not have much control, except if illness and other traumatic factors impair these developments. Even amid serious impairment, some of these developments still take place. People's "built-in time clock" makes for particular physiological changes over time, as people age, develop and grow. This process of physical maturation goes hand in hand with the development of psychological and social behaviours amid environmental influences.

In general, learning theories view personality development with regard to behaviour as a process of gradual or continuous learning through reinforcement, and one that is predominantly determined by many physical and psychosocial environmental factors. People repeat particular behaviours in particular situations if they experience or observe positive reinforcement, that is if consequences are pleasant. However, people avoid negative reinforcement or particular behaviours in situations if the consequences are unpleasant. For example, Miller and Dollard (much like Freud), emphasise *critical learning situations* in childhood with regard to feeding, cleanliness training, sex training, and learning in anger and aggression expression, all of which might have a lasting effect on personality (in Coon, 2002).

Through learning over time people develop *contingencies* or particular types of responses that apply to particular situations. Specific behaviours, patterns or hierarchies of reinforced behaviours become a person's enduring, consistent and core characteristics or personality. These might change as people's experiences of the consequences change, as the environments or situations change, and when existing behaviours no longer serve any purpose. Personality development can therefore be recognised in the existence of response patterns that are suited to each individual at a particular time in life. As people mature, their behaviour patterns become more differentiated, but also more integrated and complex, to allow the people a wider repertoire of responses in various situations.



**Figure 15.3** Various environmental influences on personality.

Personality is shaped by various forms of learning, such as formal education in schooling systems and at home, but also by informal life experiences and socialisation in groups, culture and the times in which people find themselves (Harris, 1995; Maccoby, 2000). Much research on infants and children (Craig, 1996) indicates that positive and negative behaviours through various forms of learning take place from a very early age. Development according to learning theories does not take place in stages, but is a continuous and *life-long process* of learning, changing and unlearning, as situations and the effects of behaviour also change. Learning can occur through very simple and passive processes, such as by trial and error and by classical conditioning, or learning can be more active and complex, in which case the person rationally and actively intervenes to determine the consequences of behaviours and situations.

It is possible that *habituation* plays a part in many simple forms of human behaviour, as the box below explains.

### **Habituation: Playing a part in many simple forms of human behaviour**

People can experience particular stimuli, become accustomed to such stimuli, and either cease to respond to them or respond to them automatically. Habituation therefore serves the role of self-control or self-regulation and adjustment. It is believed that the human foetus (the human being before birth) learns to respond to sounds inside

and outside the mother's womb by the simple learning process of habituation. In the same way, many behaviours of babies and infants might be the result of habituation.

Experiments by Armitage and Hepper indicated that fetuses are startled by new sounds, but calm down when they become accustomed to such sounds. It was found that new-born babies responded calmly to sounds similar to the mother's heartbeat and stopped crying in response to music that their mother had listened to whilst pregnant. Babies of mothers who did not listen to such music did not respond at all when the music was played. Cohen and Gelber found that infants as young as two months can recognise visual images by learning through habituation (Craig, 1996).

Most human behaviours, however, are learned through the processes of classical and operant conditioning. The following are examples of operant conditioning as a form of behaviour modification or the learning of new behaviours:

- In medical-related treatment, it is possible for people to learn to control heartbeat, blood pressure or tension once the people have experienced less pain or less tension, because these outcomes are rewarding.
- At home, school, and work, and in institutions such as prisons, performance can be facilitated by a system of token economy, that is particular rewards will be allocated only if certain behaviours occur. Examples are getting leisure time if no mistakes are made, and being allowed to train for being punctual.
- If employees experience that their suggestions are implemented, such rewards will enhance their feelings of self-efficacy and more suggestions might follow voluntarily.
- In training and work situations the operant principles of *shaping* and *partial reinforcement* are also often used to establish expected work behaviours. Employees are taught to master small parts of tasks or to work for short periods, and are then rewarded. In the process they learn to do whole tasks successfully or to work for longer periods.
- Operant conditioning is also applied in cases of negative or avoidance learning and punishment. If unwanted behaviour needs to be modified, the rewards for such behaviour can be removed or changed, in which case the behaviour will not occur again because it will not have the expected results

for the person. Examples are the stopping of overtime payment if production does not increase, the decreasing of the amount of bonuses if sales drop, and the stopping of “time off from work” if relationships in the work group do not improve.

Learning theories also strongly stress the various types of environmental determinants or influences on personality. *Environmental stimuli* can be of a physical, psychological and socio-economic nature or a combination of all of these. This leads to the behaviourists’ emphasis that learning is influenced by the type of situation and circumstances. Infants have primarily innate behaviour and few acquired responses, which, in time, through social experiences, develop into more advanced social and psychological behaviours. According to Bandura (1999), most behaviour in modern times is arguably acquired through *observational learning* through vicarious reinforcement. This means that children and adults alike increasingly identify with, model or imitate behaviours and characteristics from other people, including those in the media.

Children especially develop through imitation or modelling of parents and many other models in their social environment, an idea that coincides with Freud’s view of identification. Models’ rewards, such as parents being supportive and loving, do much to establish behaviour patterns. Observational learning mostly results in positive behaviours, because observers do not like to be punished in the same way as the people they are observing are being punished, for example. However, negative behaviours can also follow observed behaviours. Examples of this include the negative effects of the availability of aggressive and pornographic material, and imitations of criminal offences after people have seen particular films.

The social-cognitive theorists also emphasise life-long change and development in people as a result of the interaction between people and their environments. They refer to specific types of behaviour in people’s development as a result of particular interactions in situations. They stress *social learning* through observational or vicarious reinforcement. *Empathy*, or, in their terms, “vicarious emotional arousal” (Eisenberg, et al., 1994), refers to the experience of feeling the same feelings as another person by observing that person experiencing particular feelings. Is this not what one experiences when one sees or hears people grieve or worry? Even when reading about the problems of others, some people experience emotional arousal such as tearfulness and sadness.

Observational reinforcement is a factor in how many other behaviours

develop in people, for example, aggression, cruelty, dependence, loyalty and sex roles (Carver and Scheier, 1996). In many cultures, people learn and internalise traditional gender or sex roles by observing how parents and other models perform their roles and what types of work men and women do. Therefore, changing these roles in modern society will also require the “unlearning” of old roles and the learning of new roles by experience and observation of how other models play these roles. Research cited in Weiten (1995) and Weiten and Lloyd (2003) clearly indicates the role of reinforcement through role models, such as parents and the media, in altruistic (helping) behaviours and aggression.

In the language of the social-cognitive theorists, much learning takes place as a result of cognitive processes such as thinking, perception, interpretation and anticipation. These processes contribute to the forming of cognitive structures by which meaning and competencies are formed with regard to the world, to events, to work and to relationships. Mischel (1968) describes a competency as the developed cognitive ability of people to assess situations and the ability to perform behaviours that will suit the demands of situations.

## **15.7 LEARNING AND PSYCHOLOGICAL HEALTH**

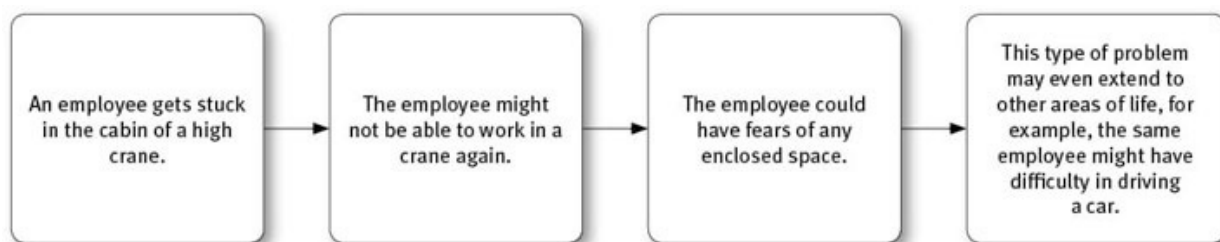
Generally, learning theories do not explain mental health as adequately as some of the other theories, and they also differ somewhat in their explanations. In fact, most of these theories do not see the need to describe symptoms or classify people in categories of maladjustment. They especially reject the medical and psychoanalytical models of explaining mental disorders and prefer to refer to *psychological health*.

In general, though, psychological maladjustment is viewed as unadapted habits or response patterns, and a lack of life skills and knowledge as a result of faulty learning, incorrect responses to environmental stimuli, and inappropriate reinforcement, or as the negative influence of environmental stimuli and models. Psychologically healthy people, in contrast, have correctly learned to respond so as to receive positive reinforcements and to avoid negative ones.

The same principles of conditioning and reinforcement that explain adaptive behaviours also apply to maladaptive behaviours, and therefore the same principles are used in behaviour change, for example, in therapeutic methods. In general, positive rewarding or reinforcement of desirable behaviours is associated with positive psychological health. In some cases, however, when desirable behaviours are rewarded without attention really being given to the

person, subsequent misbehaviour may follow because that person wants attention from people. In contrast, negative or aversive reinforcers and punishment are mostly associated with psychological maladjustment, except if it is intended to extinguish undesirable behaviours, as in *aversion therapy*, in which negative or threatening stimuli can be used to facilitate the unlearning of maladaptive behaviours. A problem with punishment and other forms of negative reinforcers, such as fear and social disapproval, is that undesirable behaviours may reappear once people become accustomed to the stimuli or when such stimuli have been removed. This might be the case in societies in which oppression, prejudice and discrimination have occurred and rules are enforced by negative reinforcement and punishment.

Classical conditioning can be responsible for many fears, anxieties and stress reactions. People's fears of various objects and ideas in life are nothing less than the association of stimuli and responses. Once a person is afraid of an object or situation, the fear can be generalised to many other situations, even if the original stimulus is not present, as illustrated in Figure 15.4.



**Figure 15.4** An example of fear being generalised to other situations, even if the original stimulus is not present.

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Operant conditioning can also be responsible for *behaviour deficiencies*. Skinner explained behaviour deficiencies as being the result of incorrect reinforcement. People behave in deficient ways if they are rewarded for it, or if their deficient behaviours are reinforced by their environments. For example, an underachieving employee, sloppy in his/her tasks, never submitting work on time, might have these behaviours because they were allowed or because he/she succeeded in avoiding negative punishment. In this way the deficient behaviours were reinforced.

The same principle might apply for many maladaptive forms of behaviour, such as verbal aggressiveness, tantrums in children, and even behaviours such as

obsessiveness and compulsiveness. In some organisations, people with deficient work behaviours might even be promoted, perhaps because of favouritism, which could be an indication of how maladaptive work behaviours can be reinforced and become a norm in organisations.

According to Hull's Two-Factor Theory of Emotion (Möller, 1995), even physical reactions can be conditioned, as these often go hand in hand with emotional reactions. Orleman's Three-Factor Theory of Emotion (1976) expands Hull's idea of emotional arousal by describing cognition or thinking as a third factor contributing to the conditioning of maladaptive emotional behaviours. The social-cognitive learning theories especially emphasise the effect of cognitive interpretation of events. People might overemphasise one or two negative events to the extent that they influence their lives for long periods. This might also explain why some people react differently to work and life stressors – it depends largely on how they perceive and interpret events. It is a cliché now that stress is not a tangible object, but will manifest to the extent that people perceive stressors as stressful, which then may result in stress reactions.

Social-cognitive theories, such as those of Kelly and Bandura, explain psychological disorders and negative emotions when people's cognitive control mechanisms (such as schemas, constructs, beliefs and self-efficacy) cannot cope with threatening or new demands of the environment. Negative cognitive perceptions or mental representations can also lead to negative self-perceptions and negative perceptions about the world and other people.

Related to cognitive representation is Dodge's idea of a progressive process of social-cognitive mechanisms of information processing through which conduct and depressive disorders might develop. In this way, too, different psychological problems might develop differently because of different methods of information processing, in addition to possible negative knowledge or cognitive mental representations of the world, the self and other people (Dodge, 1993). An example is aggressive behaviour that might develop progressively in a child. As the child experiences, thinks and performs aggressive behaviour, he/she might manifest a conduct disorder in which aggressiveness is a main characteristic.

An interesting explanation for depression is given by learning theorists (Möller, 1995): depressive people's behaviours are caused by insufficient reinforcement from their environment and other people. This low level of reinforcement results in low levels of activity, accompanied by increased complaints of illness and other less-effective behaviours, such as pessimistic

thinking and emotional outbursts. In this way, people may learn to act in a negative or self-defeating manner that prevents them from getting positive reinforcement. In terms of cognitive learning theories, depressed people might also believe that they are helpless and not in control of their lives. This form of learned helplessness and other *self-defeating* or self-handicapping behaviours, such as fear of failure and success, is in contrast to the idea that people might also learn to take control, as illustrated by concepts of learned resourcefulness and self-efficacy.

To change behaviours by means of training, therapy and counselling, learning approaches also use learning principles. Through various techniques (such as conditioning, reinforcement and the reward of other stimuli and behaviours) people learn new behaviours, or faulty behaviours are modified, extinguished or unlearned. In social-cognitive therapies people are taught to use their thinking skills to assess the causes and consequences of undesirable behaviours and to find new ways to obtain more desirable consequences. In many instances people are progressively desensitised from threatening stimuli or behaviours by being exposed to progressively more threatening stimuli until they can cope with consequences of the old or new stimuli.

Various techniques of behaviour modification are used, namely (Carson, Butcher and Mineka, 1996; Ivey, Ivey and Simek-Morgan, 1997; Gardner, 2002; Weiten and Lloyd, 2003; Nevid, et al., 2008):

- aversion therapy
- implosive therapy
- assertiveness training
- systematic desensitisation
- modelling and role play
- token economies
- various forms of self-control programmes, such as systematic relaxation and bio-feedback
- the cognitive learning techniques of rational-emotive therapy and thought-stopping.

## 15.8 SUMMARY AND CONCLUSION

According to the behaviourist or learning paradigm, personality functioning can be explained by research and assessment of observable behaviours or responses as a result of learning in the physical and social environments. Traditional

behaviourists exclude unobservable behaviours, such as the unconscious, perceptions, thoughts and traits, except if these are explained as learned behaviour. The later social-learning and social-cognitive theories, however, also recognise cognitive aspects of personality, which indicate people's ability to regulate events in their lives, and not to be slaves of environmental influences. These ideas and concepts have found acceptance in positive psychology in the assessment of positive human behaviour and attributes, as well as the facilitation of strengths in people (not only the mending of weaknesses) to develop people's potential and optimal functioning.

The structural aspects of personality, such as response patterns and habits, are formed by the reinforcement of behaviours. Personality motivation, development and adjustment are the results of environmental influences and the reinforcement effects of various ways of learning. Examples are classical and operant conditioning, observational or vicarious learning (such as identification, modelling and imitation) and cognitive learning (such as perception, expectancy, self-regulation, mental representations and information processing), as well as the interactive effects between people, environments and behaviour. Behaviour consistency will be better achieved if specific situations can be identified or created in which specific behaviours are optimal. Faulty learning processes may result in personality maladjustment and emotional dysfunction, which can be corrected by behavioural processes of unlearning, and the acquisition of correct or new response patterns.

Learning principles are a part of historical and modern psychological theory and practices, and they will have an important place in the future. Behaviourist and learning assumptions are simple, understandable and have validity in their statements on behaviour that is observable and measurable. The norm and practice of precise measurement also complies with the requirements of scientific thinking, which emphasises studying personality scientifically through accurate controls and observation. Behaviourism has made a significant contribution to the development of objective methods to observe and assess personality.

In the work context, practitioners use behaviourist principles in techniques such as behaviour-anchored rating scales, behaviour-based interviewing, and observation of behaviour dimensions in real or simulated work activities (as in assessment-centre activities). In work motivation, leadership behaviour, training, advertising practices and behaviour-modification practices, learning principles offer economical and quick ways to make an impact on human behaviour.

Learning principles have contributed much to research and have also indicated differences in psychological disciplines, thus contributing towards a better understanding and explanation of human development and motivation, and the causes of behavioural disorders. Criticism can be levelled at the behaviourists' possible oversimplification of personality and their ignoring of less-observable influences in human behaviour. The fact that the results of experimental observations cannot be generalised to real-life situations, owing to small research samples and unnatural situations (and also the debatable relevance of animal research), is often a problem. However, experimentation is one of the few methods that really can explain the underlying causes in behaviour.

## **15.9 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. The most central idea(s) in the behaviourist paradigm is/are:
  - a) cognitive control of behaviour
  - b) vicarious learning
  - c) habituation in personality
  - d) habituation
  - e) conditioning and environmental influences.
2. "Self-efficacy" and "locus of behaviour" refer to:
  - a) cognitive learning and self-control in behaviour
  - b) concepts used to describe self-esteem in personality formation
  - c) concepts used to counter the deterministic belief in environmental influences
  - d) constructs used to explain human motivation
  - e) reinforcement contingencies.
3. The following factor best explains personality maladjustment according to a behaviourist paradigm:
  - a) repetitive environmental influences
  - b) poor biological development across life stages
  - c) people's incorrect self-regulatory plans
  - d) socialisation through vicarious learning
  - e) incorrect responses to environmental stimuli.
4. In work situations, employees are sometimes intimidated and disciplined by threats of losing their jobs, less pay and disapproval,

illustrating:

- a) faulty learning
- b) emotional arousal
- c) negative conditioning
- d) desensitisation
- e) classical conditioning.

5. Imagine that, after an employee had been promised a promotion, she worked much harder. However, she was disappointed when she did not get the promotion, as she believed her efforts were good enough. She has now stopped putting in extra work. According to behaviourist theories, this example best illustrates motivation according to the concept of:

- a) classical conditioning
- b) stimulus generalisation
- c) equity
- d) cognitive expectancies
- e) reciprocal determinism.

### **Answers to multiple-choice questions**

1 = e; 2 = a; 3 = e; 4 = c; 5 = d

## **Issues for discussion and practice**

1. Discuss the main assumptions that behaviourism or learning theory makes about personality development.
2. Explain how you would use learning principles to help colleagues solve the problems related to their work motivation.
3. Imagine that a person tells you of a fear of being amongst people. How would you explain this condition using learning principles? How would a psychoanalyst's explanation differ?
4. Using examples, discuss how reinforcement principles operate in South African society.
5. Explain the relevancy and validity of learning principles in your own life and environment.

## CASE STUDY

For as long as he can remember, Toni has had problems achieving as well as he knew he could in his work, and according to what other people told him he should be able to do. In school he was often reprimanded by teachers, but privately Toni admired some of his classmates who obtained high marks. For him, indications of his better potential were his scores on ability tests, which often confirmed his above-average intelligence, and his good athletic achievements. He liked sport and he liked to win, and he always admired top sportsmen and sportswomen of the world, whom he tried to emulate. Toni always wanted to impress his parents, as they both had difficult childhoods and grew up in poor families. Toni especially wanted to do better than his father, who always struggled to obtain a good position and to hold his jobs. Toni does not know why, but his father, a strict man, criticises him about almost all aspects of his life.

Toni is worried about his work and about not being promoted, because he seems to be unable to complete his degree. He also does not attend training courses at work. At this stage his motivation is low, and he wonders whether he has the competencies to progress in his study and work. It also does not help when his manager and colleagues often find fault with his work behaviour. Now Toni is desperate and has decided to consult a career counsellor.

- 
1. Using examples from the case study, explain how learning influenced Toni's personality and behaviour.
  2. Explain Toni's social-cognitive representations of himself, others and the world.
  3. If you needed to motivate Toni according to behaviourist ideas, which strategies would you use?

## **CHAPTER 16**

# **Personality recognised in traits**

*Ziel Bergh*

**16.1**

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**16.2**

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Traits and personality dynamics (motivation)

**16.9**

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**16.10**

Consistency in personality

**16.11**

## Summary and conclusion

**16.12**

## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- define the concept of a trait and cite examples of traits
- use a definition to explain the assumptions of the trait approaches
- describe personality structure by using concepts from one or more trait approaches
- list personality traits and fit them into a model of personality traits
- identify traits in people and classify them as different types of traits
- explain someone's motivation by using different trait concepts
- explain personality development using the trait concept
- give evidence of why traits are believed to be consistent in people, across time and in situations
- explain psychological adjustment according to trait approaches
- demonstrate the trait concept's utility in human-resources practices.

## 16.1 INTRODUCTION

One often hears descriptions such as the following:

- A mother, speaking about her son to his fiancée's parents, says proudly: "Ron is good natured, caring, even tempered, responsible and generous."
- A job advertisement: "The successful client must have a degree, applicable work experience and business acumen, like challenges, have creative and managerial skills, possess good people skills, work well under stress, like travel and be willing to work away from home."
- Someone describing a friend says: "She is a conscientious person – hardworking, responsible, persistent – and achieves well in what she does."

It has become commonplace to describe or characterise people according to particular traits, factors or dimensions to explain the enduring characteristics of personality and behaviour, thought and feelings, as in some of the above examples. The trait approach is arguably the most used and influential approach in the study of personality and individual differences. In the work context, competency profiles, made up of abilities, knowledge, skills and personality attributes, as well as job and situation descriptions, are in fact trait or

characteristic descriptions, and are essential to psychologists, since trait psychology has made an immense contribution to psychological assessment for the selection of employees. Trait psychology has contributed towards the theory of personality and individual differences, practices of objective psychological assessment, the development of psychometric tests in many psychological fields, and it is used in job analysis to determine job competencies. Trait psychology has contributed immensely to research on the work-relatedness of personality traits (the relationship between personality factors and various work-performance measures).

Psychologists and human resources practitioners should be knowledgeable about trait psychology, because it helps with an understanding of individual differences between individuals and groups, which is important for assessment and other applications in all psychological practice areas, but, especially in personnel, organisational, consumer and counselling psychology.

The *aim* in this chapter is to provide an explanation of personality as seen by trait approaches.

## **16.2 A BACKGROUND TO THE TRAIT APPROACH TO HUMAN NATURE**

The *trait* or factor approach, also referred to as a dimensional or dispositional approach, explains and predicts personality along distinctive traits or personality characteristics that can be more or less consistent across time and situations. *Type and style* classifications, in which aspects of personality are explained along clusters or groups of traits and behaviours, are related to or derived from trait approaches. Trait concepts refer to differences amongst people indicating characteristic internal dispositions and observable behaviours, thoughts and feelings, which are used to describe personality structure, motivation, personality development and psychological adjustment. According to trait psychology, all people possess varying degrees of inherited and acquired personality traits. Some traits might be generic to all people, whilst other traits might be unique to particular people. Similarities and differences between people can be measured through the use of personality and related questionnaires or self-report inventories, and be compared and related to other psychological behaviour, for example to predict job success. This is why trait approaches are sometimes referred to as psychometric approaches, because of the emphasis on objective measurement and the quantitative analysis of the elements of personality. Traits

can be measured and analysed in terms of, amongst other things, abilities, motives, interests, values, emotions, attitudes and interpersonal behaviours.

In a sense, most personality theories use descriptive concepts to describe the various aspects of personality, and can therefore be regarded as dimensional, such as the psychoanalytical descriptions of id, ego, superego, conscious and unconscious; the humanistic self-concepts, the responses discussed by the behaviourists, and the constructs used by cognitive psychologists. However, by and large, only trait descriptions have been established through rigorous empirical research, such as factor analysis and other types of correlational research (Ashton, 2007; Cervone and Pervin, 2008). In this way, various factor models of personality traits, and of types and styles (which refer to a combination of related traits), have been established.

Trait research, with its beginnings in research on intellectual abilities, together with behaviourist research through experimental observation, is largely responsible for qualifying psychology as a science. This is especially true with regard to its contributions in the use and development of objective or psychometric tests and personality questionnaires. An important aspect of trait research was the establishment of general laws of human behaviour (a nomothetic approach) to explain similarities and differences between people. However, in the description of individual differences and unique traits in each person, trait psychology also contributes to an idiographic approach (where the emphasis is on the individual).

Trait psychology also contributed towards assessment methodology in many psychological applied fields, and especially to the relatedness of personality in contexts such as work environments, jobs, psychological disorders, emotions, motivation, consumer behaviour, entrepreneurship and leadership (Furnham, 1992, 1997; Murphy 1996; Barrick and Ryan, 2003; Ashton, 2007; Flett, 2007; Maltby, Day and Macaskill, 2007). These and other sources indicate the increase in research on diverse applications as a result of, in particular, the influence of the “Big Five” trait factors or Five-Factor Model (FFM) of personality, as well as an increase in cross-cultural research (Church, 2000; Funder, 2001a). Research by McCrae, Costa, Del Pilar, Roland and Parker (1998) and Yang, McCrae, Costa, Dai and Yao (1999), for example, demonstrate the cross-cultural applicability of the FFM.

Trait theories mainly develop through an empirical research approach, which contrasts with many other theories that start out as pure speculation or subjective observations, such as Freud with his observations on individual patients.

Raymond Cattell, for instance, did this by a process of “inductive-hypothetico-deductive spiral” (Allen, 1994, 423), as discussed in the box to the right.

Later theorists and researchers produced their own lists, especially through the statistical process of factor analysis, though many overlaps occur between the trait classifications of most trait theorists.

The main exponents of trait approaches in personality are Allport, Cattell, Eysenck and Wiggins. Goldberg, and Costa and McCrae, are more recent exponents of revised or newer trait models, such as the FFM (Goldberg, 1990; Costa and McCrae, 1995; Pervin and John, 1999; Maltby, Day and Mascaskill, 2007). Efforts to propose a new personality theory according to the FFM might signal the beginning of not only a new trait approach, but also a more integrated view of personality and of psychological knowledge (Wiggins, 1997; Block, 2000; Roberts and Robins, 2000). According to Cervone and Pervin (2008), the Five-Factor Model of personality is not a new theory of personality, but indicates, through a huge body of research, that personality and individual differences can be studied sufficiently using fewer than Cattell’s 16 factors, and yet should use more than Eysenck’s three factors.

Many other personality-related phenomena, such as the structural theories on intelligence, (for example, those of Spearman, Thurstone and Guilford) all depict intellectual abilities in terms of different elements. The same applies to the conceptual approaches to interests, values, attitudes, motivation, emotion, consumer behaviours and aspects such as leadership and management. The books by Murphy (1996), Barrick and Ryan (2003), Maltby, Day and Macaskill (2007), and Ashton (2007) are only a few of the many integrative efforts to report on the relatedness of personality traits and other individual differences factors regarding work, life outcomes, health and many other contexts.

### **Cattell’s inductive-hypothetico-deductive spiral: developing trait theory through empirical research**

By first doing scientific empirical research on traits, Cattell identified five hypotheses to be tested. He followed a process of reasoning from the specific to the general (inductive), which made it possible to then reason from general statements to specific aspects (deductive) from which his trait theory evolved.

Cattell followed a fundamental lexical hypothesis to ensure that across all cultures languages will have words to describe the main

personality factors. He started with 18 000 words, which he firstly reduced to 4 500 personality descriptive words, then 171 trait words, and, after integrating many research studies, he ended up with 35 surface traits, which were readily observable. Finally, the surface traits were then reduced to 16 so-called “source traits”, (measured by various formats of the 16-Factor Personality Questionnaire) which he determined from various types of information, that is:

- life data (L-data)
- questionnaire data (Q-data)
- data from objective tests (T-data).

### 16.3 MAIN TRAIT ASSUMPTIONS

Trait theorists assume that personality consists of particular traits that people have that are more or less enduring characteristics across time and situations, and that these traits direct and organise behaviour, and provide each individual with a fairly identifiable personality profile.

A further assumption of trait psychology is that traits – or a pattern of traits, types or a person’s disposition – are quite consistent or stable, even though they might change to some extent across time and situations (Ashton, 2007).

People often seem to remain more or less the same in respect of their “basic” personality characteristics and ways of doing things. However, physical changes might be more noticeable than changes in underlying behaviour. A person’s traits might also be quite observable in behaviour, although many assert that aspects of people’s behaviour might be attributable to unconscious causes – in fact, some trait descriptions suggest the existence of unconscious or hidden causes in behaviour (Funder, 2001b). In other contexts, other aspects can be seen as part of or important in depicting what personality is. For example, in collectivistic cultures (such as African and Asian cultures), external factors and the defining power of group influences might be considered as more important to personality than intrinsic or internal traits are.

According to the trait approaches, people might be similar in some respects, but every individual also has a unique disposition, because traits can manifest differently in different people as a result of different genetic, learning, cultural and situational experiences. Cattell, for one, recognises that some traits have a genetic origin, but environmental factors also influence the formation and

expression of personality. Cattell explained personality interactionally, that is by defining personality as “that which predicts what a person will do when placed in a particular situation” (Cattell, 1966, 25). Gordon Allport, a so-called “eclectic” psychologist because he agrees with or utilises ideas from various approaches, emphasised that the way traits combine in each individual determines the uniqueness of personality in each person.

## 16.4 PERSONALITY DEFINED AS TRAITS

Traits are tendencies or predispositions that people have to act, think and feel in particular ways. People who have similar traits might also behave similarly. One of the most recognised definitions of personality as a dispositional phenomenon is that of Gordon Allport (1961, 28). He defined personality as “the dynamic organisation within the individual of those psychophysical systems that determine his characteristic behaviour and thought”.

Allport’s definition of personality is, on analysis, quite complex and complete. It recognises that:

- personality is determined by the interaction of biological and psychological processes
- personality is an organised whole consisting of interdependent physical, cognitive and psychosocial aspects
- personality is dynamic, in other words it develops, grows and changes as the individual matures and learns
- changes or variations in how personality is expressed can also occur from time to time or across situations
- personality, through the psychophysical systems, motivates and directs behaviour
- personality provides recognisable or characteristic unique attributes, thoughts and behaviours, which enable the individual to adapt in his/her environment.

Allport’s definition also implies that traits can be general (meaning traits can be the same for many people, or many behaviours can be explained by such traits) or unique to each individual, or every individual may have unique traits, which would explain individualistic types of behaviours.

To Allport, traits are psychophysical systems that really exist, that give structure to personality, and direct and motivate behaviour. Traits, especially as a result of underlying neurological processes, provide stability to behaviour and personality. The same trait, for example being trusting, should elicit the same

type of response from various stimuli or situations. In contrast, other authors view traits not as concrete or directly observable, but as images or abstractions that represent certain types of behaviour and can only be observed indirectly.

Cattell (1965), who defines “personality” as behaviour in specific situations, refers to traits as the building blocks of personality which must provide personality with characteristic, consistent behaviour to allow others to know what to expect of someone. Cattell also recognises that personality, expressed in behavioural traits, is a function of people and all their attributes in interaction with their environments (Ewen, 1998a).

### **ETHICAL READER: The responsibility to be objective**

Social constructionists' criticism of trait theory serves to make psychologists aware of their ethical responsibility to be objective and not to allow their own preferences to distort their observations of a person's behaviour (that is, to type-cast or label people). However, in scientific trait research, the formulation of theory and concepts rests on widely accepted empirical evidence. Trait psychologists would counter this critique by social constructionists by indicating that their objective assessments and research are based on trait names in languages that people in all language-and culture groups understand. They would also refer to cross-validation with other assessments, and how people across situations, cultures and time describe their own personalities (Cervone and Pervin, 2008).

## **16.5 TRAITS, TYPES AND STYLES IN PERSONALITY STRUCTURE**

Traits can be expressed as single traits, or combined as factors, types or styles.

### **16.5.1 Traits**

Trait descriptions of personality utilise specific attributes to describe and explain characteristic ways of behaving, thinking, feeling and doing. Traits are inherited and represent learned potential or predispositions, which direct and motivate behaviour, and which give structure to personality, or those attributes that make up personality. A combination of traits can lead to a profile, type or style

description. Often, scores on personality questionnaires are integrated through statistical techniques to present types (for example, team roles, leadership styles, conflict-and stress-management styles, and occupational types).

### **Timmons's entrepreneurial characteristics**

Timmons (in Furnham, 1997) describes 13 general characteristics for entrepreneurial success:

- drive and energy
- self-confidence
- long-term involvement
- valuing money as a measure of success
- persistence in problem-solving
- ability to set goals and to commit to them
- moderate risk-taking behaviours
- ability to learn from failures
- concern for feedback on performance
- initiative and taking responsibility
- actively using available resources
- competing against own standards
- tolerance for ambiguity and uncertainty.

Based on the number of the above characteristics that fit your personality, would you say you are an entrepreneurial type?

Scientific and more objective measurement and trait descriptions of personality are based on some theoretical model or other, such as the 3-, 5-and 16-Factor Models, though others also exist (Eysenck, 1991b; Barrick and Ryan, 2003; Maltby, Day and Macaskill, 2007).

#### **16.5.1.1 Personality as three factors**

One of the most sophisticated and influential trait approaches in theory, research, personality assessment and other applications, is Hans Eysenck's Three-Factor Model of personality (Eysenck, 1992; Pervin and John, 1999; Eysenck, 2004; Maltby, Day and Macaskill, 2007). Some would have it that Eysenck's model closely resembles the Five-Factor Model (Digman, 1990). Others might say it

contributes as much to trait psychology as Cattell's 16-Factor Model. Eysenck preferred to use fewer, but more inclusive trait factors, and to emphasise the necessity of having a theoretical explanation for each trait, and not empirical findings alone.

According to Eysenck, many traits are biologically determined and influenced by the environment. Peoples' specific responses in situations can be grouped into habitual responses, which in turn can be grouped into supertraits, from which a personality type will emerge. Personality is thus seen to consist of three major factors, supertraits or types:

- extroversion – introversion (E)
- neuroticism – stability (N)
- psychoticism – tough-mindedness (P).

Each of the main types is described by subfactors or specific traits. Eysenck asserted that up to two-thirds of differences in traits between people can be attributed to differences in genetic factors, causing differences between people's physiological responsiveness, which will influence personality-trait development and expression. This is an assumption that has now been verified by research (Ashton, 2007).

Eysenck's model influenced the construction of various personality questionnaires, such as the Eysenck Personality Questionnaire (EPQ) to assess the Three-Factor Model (Gregory, 2004).

Digman (in Wiggins, 1996) asserts that if one also includes Eysenck's concept of intelligence, his model really has four factors.

The three main factors and their subfactors are described in Table 16.1.

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**Table 16.1** Eysenck's Three-Factor Model: the three main factors and their subfactors

Extroversion versus introversion	Neuroticism versus emotional stability	Psychoticism versus tough-mindedness
Activity	Low self-esteem	Aggressiveness
Sociability	Unhappiness	Assertiveness
Risk-taking	Anxiety	Achievement orientation
Impulsiveness	Obsessiveness	Manipulation
Expressiveness	Lack of autonomy	Sensation-seeking
Lack of reflection	Hypochondria	Dogmatism

Lack of responsibility	Guilt	Masculinity
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Source: Adapted from Gregory (2004), Maltby, Day and Macaskill (2007), and Cervone and Pervin (2008)

This model stimulated much research, contributed quite substantially to personality assessment, and is backed by factor analytical research, but also has critics for presenting personality too simplistically (in Eysenck, 2004; Maltby and Macaskill, 2007). It is used in the assessment and description of behaviours in various applications, such as smoking, health, sex and criminality, and cross-culturally, but to a lesser degree, in occupational assessment.

Two of the factors, extroversion and neuroticism, have similarities to two factors in the FFM of personality. In fact, following Jung's emphasis, Eysenck's research on introversion and extroversion confirmed the differences between the two types with regard to sociability and impulsiveness. Extroverts are typically more sociable, but also more risk-taking and impulsive. Introverts are more reserved, quiet, introspective and less impulsive.

People with high neuroticism tend to worry a lot and are anxious and emotionally labile, whilst also having many physical complaints (such as headaches and body pains).

The factor psychoticism is disputed as a general trait in personality description, and claimed to relate more to a description of maladjustment in the form of psychopathy (Eysenck, 2004).

#### 16.5.1.2 Personality as 16 factors

Cattell proposed that personality be represented by 16 relatively independent factors, which are measured by the well known 16 Personality Factor Questionnaire (16PF Questionnaire), various versions of which are used in clinical, educational and occupational applications. Like that of Eysenck, Cattell's theory of personality evolved as a result of extensive factorial research on personality traits over many years (Cattell, 1965; Pervin and John, 1997; Ewen, 1998a, 1998b).

Cattell's approach played a dominant role in the further development of trait psychology and objective personality assessment. This included the most recent development of an integrated personality model based on an integrated research and assessment trait model, the Five-Factor Model (FFM), which used the "Big Five" factors. Of this, Cattell must be considered the "intellectual father".

When assessing personality according to the 16PF, personality is divided into 16 so-called “first-order factors” or “source traits” (see Table 16.2), or these factors can be calculated and reduced to 6 (or 9) “second-order factors” including anxiety, extroversion, independence, tough-poise (tough-mindedness), control and intelligence. Actually, the 16 first-order factors consist of 36 surface traits and a smaller number of source traits, which underlie and direct the surface traits.

Cattell’s model encouraged an enormous amount of research and applications, but also caused controversy. Eysenck (2004), for example, asserts that Cattell’s factors have not been sufficiently verified by factor analysis. However, Cattell’s model and related personality questionnaires, such as the 16PF and adapted versions like the 15PF, are still widely used in the work context as well as in other applications, with much supporting evidence. Cattell, for example, provided many 16PF-profiles for various types of jobs, as well as for clinical use (Cattell, 1965, 1966). He is criticised for not having developed better theoretical explanations for his trait model and trait descriptions.

Although Cattell stated that more factors are required for an adequate understanding of personality (as many as 36 if abnormal personality traits are included), his second-order factors integrate personality into 5 factors, if intelligence is excluded, according to Strack and Lorr (1994). In this sense Cattell’s 16-factor approach is comparable with the FFM.

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**Table 16.2**      Adapted one-word 16 primary factor descriptors for the 16PF questionnaire

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Factor names	Low-score meaning	High-score meaning
A: Warmth	Reserved	Outgoing
B: Mental alertness	Concrete reasoning	Abstract reasoning
C: Emotionality	Affected by feelings	Emotionally stable
E: Dominance	Submissive	Assertive
F: Liveliness	Serious	Enthusiastic
G: Conformity	Expedient	Rule-conscious
H: Boldness	Timid	Venturesome
I: Sensitivity	Tough-minded	Sensitive
L: Vigilance	Trusting	Alert
	Practical	Imaginative

M: Abstractedness	Practical	Imaginative
N: Privateness	Forthright	Calculating
O: Apprehension	Self-confident	Insecure
Q1 Change orientation	Traditional	Open to change
Q2 Self-discipline	Group-oriented	Self-reliant
Q3 Perfectionism	Undisciplined	Precise
Q4 Tension	Relaxed	Tense

Source: Adapted from Gregory, R.J. (2000). *Psychological testing: History, principles and applications* (3rd ed., \*p 522).

Allyn and Bacon: Boston; Weiten, W. (2011). *Psychology: Themes and variations* (8th ed., Briefer edition, \*p 408).

### 16.5.1.3 Personality as five factors

The Five-Factor Model (FFM) of personality has developed into an approach that arguably enjoys the most support at present as an integrative trait description of personality (Digman, 1990; Goldberg, 1993; Barrick and Ryan, 2003; Cervone and Pervin, 2008). Also called the Big Five Factor Model, the FFM enjoys wide acceptance: the traits have been proved to have construct and predictive validity, and good theoretical descriptions support the various trait descriptions. Wiggins (1996), Barrick and Ryan (2003), and Cervone and Pervin (2008) give excellent accounts of the progressive developments and related research involving the FFM, from its modest conception by Thurstone in the 1930s, through the many contributions by, amongst others, Tupes and Christal, Norman, Eysenck, Guilford and Cattell, to its rediscovery in the 1980s, and through to the present, where it is asserted, the FFM represents a new, integrative way of describing, assessing and studying personality and its relationship to many other contexts. In particular, it was the vigorous writings and research of Costa and McCrae that revived interest in the FFM and also showed that the five factors are measured by some of the well known personality questionnaires. Concepts in the FFM represent psychological knowledge from many personality theories and decades of personality and other psychological research. Some, however, say it is too mechanical and does not explain the underlying dynamics of personality (Eysenck, 2004).

Although quite a number of FFMs are proposed, there is much agreement on the lexical basis (everyday meanings) of factor names and the contents of the

five factors.

To summarise the various FFMs (Carver and Scheier, 1996), Table 16.3 illustrates the five factors with some of the characteristic traits or subfacets.

**Table 16.3** Factors and trait descriptors from the FFM

Factor	Factor
1. <i>Extroversion (surgency)</i> warmth, assertiveness, activity-seeking, excitement, gregariousness, positive emotions	<i>Introversion</i> silent, unadventurous, timid, unenergetic, unassertive
2. <i>Agreeableness (friendliness)</i> trust, tender-mindedness, straightforwardness, altruism, compliance, modesty	<i>Antagonism</i> stingy, unkind, selfish, distrustful, unhelpful
3. <i>Conscientiousness (dependability)</i> order, competence, achievement, striving, deliberation, self-discipline, dutifulness	<i>Lack of direction</i> impractical, lazy, disorganised, irresponsible, careless
4. <i>Neuroticism (emotional instability)</i> hostility, anger, anxiety, impulsiveness, depression, self-consciousness	<i>Emotional stability</i> relaxed, calm, contented, unemotional, stable
5. <i>Openness to experience (intellect)</i> values, fantasy, aesthetics, actions, feelings, ideas	<i>Closedness</i> uncreative, uninquisitive, unreflective, unsophisticated, unimaginative

Source: Pervin and John (1997). Pervin, L.A. and John, P.J. (1997). *Personality: Theory and research*. New York: Wiley. This material is reproduced with permission of John Wiley and Sons, Inc.

Each of the five factors is described by specific traits, which represent a finer analysis of personality, much like Cattell's idea of the 16 primary factors and the six second-order factors. Costa and McCrae's neo-personality questionnaires (the NEO-PIR and the NEO-FFI) are designed to measure the "Big Five" personality factors (Costa, McCrae and Dye, 1991). Every one of the complex five factors or supertraits has roots in the knowledge or conceptual base of psychology, that is, in theory and research. All subtraits belonging to each factor have been scrutinised, leading eventually to the description of each factor with all its characteristics. These trait names have stood the test of time in general lexical use, in personality research, and in assessment practices, and they enjoy general acceptance in many circles.

The FFM has been verified by assessments on a broad range of personality

questionnaires in various applications, such as personality disorders and other psychopathological conditions, and work-related assessments (Barrick and Mount, 1991, 1993; Strack and Lorr, 1994; Schneider and Hough, 1995; Barrick and Ryan, 2003), as well as in cross-cultural research (Church, 2000; Funder, 2001). Barrick and Ryan (2003), for example, report many findings that indicate significant relationships between the “Big Five” factors and many other variables, such as types of work-performance measures (for example, job proficiency, training proficiency and personnel data). Research indicates that most of the five factors and subfacets, depending on the type of job and the work-performance criteria used, are more or less work-related. However, conscientiousness, especially, is a consistent predictor of work performance across many jobs; extroversion is closely related to job factors such as social interaction and training proficiency, and autonomy is an intervening variable in the relationship of personality and work performance. It seems evident that future classifications, such as of abnormal psychological syndromes, and especially descriptions of personality disorders, will have to include or integrate research based on the FFM. In efforts to predict occupational performance, the value of the FFM for personality assessment cannot be ignored.

The FFM does a great deal to organise data on personality variables, which makes for easier use of other existing theories to explain such variables. Some researchers assert that a complete description of personality will have to be based on more factors, and also that FFMs do not explain personality efficiently in all its manifestations (Block, 1995, 2001). Block criticised the easy acceptance of the five-factor approach and said that it covers only two factors adequately, and he suggested that it put too heavy an emphasis on objective assessment by questionnaires only. He also criticised the acceptance of lay language for trait descriptions. Hough (1997) asserted that the FFM is too broad and does not accommodate some existing personality scales. She therefore described four more factors:

- achievement
- affiliation
- locus of control
- masculinity/femininity, or rugged individualism.

The factor of spirituality or religiousness is also named as a trait which should be integrated in personality trait classifications (Strümpfer, 2005).

It is also obvious that the FFM will have to be integrated with assumptions on personality structure, motivation and development, as proposed by older, and

other, types of personality theories. In the practice of measurement to predict behaviour, it might always be better to use more factors and associated traits.

For the moment, the FFM does well in describing personality, but not as well in explaining behaviour, especially underlying causes, internal personality dynamics and underlying motivation (Saucier and Goldberg, in Wiggins, 1996; Saucier and Goldberg, 2003; Maltby, Day and Macaskill, 2007). The FFM as yet is not a complete theory of personality. However, there continue to be some efforts to postulate a five-factor theory of personality (Costa and McCrae, in Wiggins, 1996).

Trait models can no longer be ignored in contemporary thinking about, and the assessment of, personality. It may be necessary to adapt existing theories and methods to reflect the FFM as well. More recent studies report on the predictive validity of the FFM, or the relationship of the FFM of personality with regard to many variables. These include: job performance, job satisfaction, academic achievements, occupational choice, personality-disorder symptoms, political attitudes, religiosity, spousal similarity, change during adolescence, stability during adulthood and adolescence, attachment styles, relationships and sex, attractiveness, life goals and outcomes, marital satisfaction, health, therapeutic outcomes, positive and negative affect, situational influences, teamwork, counterproductive work behaviours, social relationships and learning behaviour. (Robins, Caspi and Moffitt, 2000; Roberts and Robins, 2000; Berry and Miller, 2001; Shafer, 2001; Barrick and Ryan, 2003; Paunonen, 2003; Ashton, 2007; Maltby and Macaskill, 2007; Cervone and Pervin, 2008).

### **Try assessing yourself**

Write down some words or phrases for traits and behaviour that you think describe yourself best – or ask someone to do it for you. Now compare it to the trait descriptions in Tables 16.1, 16.2 and 16.3, even though this might give you only a rough indication. It is quite possible that other people might assess you somewhat differently.

Also remember that, in practice, personality assessments are made by more specific and standardised methods by professional psychologists. Personality questionnaires also consist of many standardised items to be completed, marked and interpreted according to particular norms.

### 16.5.2 Other trait applications

Personality traits, as measured by many personality questionnaires based on the above-mentioned models, are associated with personality as a unitary psychological concept. However, personality is embedded in other domains as well, for example, the cognitive or intellectual domain, as well as in non-cognitive domains, for example motives, tendencies, values, attitudes and emotions. These factors, together with personality factors and biographical factors, are mostly considered to be individual-differences factors.

It is possible to find personality-, trait-, or type-and style-like classifications for many other applications, for example leadership, management, coping, learning, group roles, personality disorders and even organisations. With regard to psychological disorders, especially personality disorders, trait psychologists believe that these conditions can be described in terms of exaggerated versions of “normal” personality traits (Cervone and Pervin, 2008).

An interesting factor or trait approach to the classification of interpersonal behaviours is the Interpersonal Circumplex Model (or Interpersonal Trait Model) proposed initially by Leary and extended by Carson, Kiesler and Wiggins (in McCrae and Costa, 1989; Wiggins and Broughton, 1991; Baldwin, 2005). This model was developed from a broader model of trait categories, which are termed interpersonal, temperamental, character, social and mental traits. The interpersonal model is based on the assumption that personality is best expressed in interpersonal situations, so vividly defined by Sullivan (1953, pp.110–111) in his interpersonal approach to personality as “the relatively enduring pattern of recurrent interpersonal situations which characterise a human life”.

How people react in social situations is really determined by interpersonal traits. Wiggins distinguished eight interpersonal trait categories, which he represented as opposites on a circle. Such opposites should be negatively related, whilst traits at right angles to each other should be independent of each other. The eight interpersonal trait categories are illustrated on the circle in Figure 16.1.



**Figure 16.1** Interpersonal circle of personality traits.  
Source: Adapted from Wiggins (1979), Cloninger (1996) and Plutchik and Conte (1997)

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Note that some of the trait descriptions in Figure 16.1 closely resemble those of some of the 3-, 5- and 16-Factor approaches. Correlations with many other questionnaires, based on other models, were found and the interpersonal-trait approach is used in many applications. Kiesler (1979) produced the Interpersonal Impact Message Inventory to assess the impact of interpersonal contact in, for example, therapy. With regard to interpersonal models of personality, Baldwin (2005) reports on various models of interpersonal cognition, which indicate how people cognitively define themselves in interaction with other people, based on their previous cognitive representations. Baldwin indicates the way in which people with personality disorders can be described and classified according to their interpersonal schemas, or how they want to relate to other people or expect or allow others to relate to them. Hill and Safran (1994) developed the Interpersonal Schema Questionnaire to assess the way in which people construct their relationships or interactions with other people.

There are also a few work-related personality-trait classifications. The box in section 16.5.1 refers to a work-related entrepreneurial personality profile. In the same manner, the Customer Service Inventory (CSI) by McLellan and Paajanen (1995) is an example of a universally usable measure of work-related personality traits. The dimensions in this questionnaire are:

- sociable
- communicative
- courteous
- positive body language

- perceptive
- responsive
- tactful
- cooperative
- flexible
- open
- even-tempered
- optimistic
- accepting of authority
- externally rewarded
- competent
- reliable.

These authors found good evidence of criterion validity between customer-service orientations and four criteria related to customer service, whilst Costa and McCrae (1995) and Ones, Viswesvaran and Schmidt (1993) also reported a positive relationship between customer-service orientation and personality factors such as emotional stability, agreeableness and conscientiousness. McDaniel and Frei (in Hough and Schneider, 1996) reported employees with good customer orientation to be resilient, cautious, cooperative, adherent to strict standards of conduct, helpful, cool-headed, “planful”, accepting and thoughtful.

Another measure of work-criterion clusters or taxonomies is the 18-Factor Model of managerial performance, reduced to four main factors by Borman and Brush (1993). The four main factors are:

- interpersonal dealings and communication
- leadership and supervision
- technical activities and mechanics of management
- useful personal behaviour and skills.

Similar concepts and their subfacets are used in managerial assessments in assessment-centre technology. The specific criteria applicable to management performance are the following 18 traits:

- planning and organising
- guiding, directing and motivating subordinates
- giving feedback, training, coaching and developing subordinates
- communicating effectively and keeping others informed
- representing the organisation to others and the public
- technical proficiency

- administration and paperwork
- maintaining good working relationships
- coordinating subordinates and other resources to get the work done
- decision-making and problem-solving
- staffing
- persisting in order to reach goals
- handling crises and stress
- organisational commitment
- monitoring and controlling resources
- delegating
- selling and influencing
- collecting and interpreting data.

The above-mentioned criteria should fit well with personality variables as measured on many recognised personality tests. It is, however, possible that technical task criteria will be better predicted by measures of ability, whilst the more contextual activities of job performance (such as interpersonal skills) will be better predicted by personality measures. Brief and Montewidlo (1986), Johnson (2003), and Cullen and Sackett (2003) describe so-called “prosocial organisational behaviours” or “organisational citizenship behaviours” in contrast to pure task behaviours and counterproductive behaviour in the workplace. Prosocial organisational behaviours or organisational citizenship behaviours are the extra supportive, positive or work-engagement behaviours that are not always in a job description, but are very necessary in successful job performance. Some of these are:

- volunteering to carry out task activities that are not formally a part of the job
- showing extra enthusiasm or effort and doing more than the expected, if necessary, to complete one’s own and other tasks
- cooperating and helping others
- following organisational rules and policies even if it is personally inconvenient
- supporting, defending and endorsing organisational objectives.

A similar work-related trait application that has received much attention is organisational trust and integrity. This has been used to assess a range of dishonest, illegal and counterproductive attitudes and behaviours. These were found to correlate with measures of job performance and counterproductive behaviours (Ones, Viswesvaran and Schmidt, 1993).

Organisations are also classified according to personality trait-like concepts. Davies (1992), Kennedy and Everest (1991), and Cox and Blake (1991), for example, all used traits to describe the organisation that manages diversity successfully. Some of the traits identified were:

- having strong positive values
- understanding own culture and how employees are influenced
- practising and accepting cultural differences
- encouraging an open, trusting climate
- having good structural integration and flexibility
- practising mutual feedback with good communication and encouragement
- ensuring the absence of prejudice and discrimination
- ensuring low levels of conflict
- showing concern for interpersonal relationships
- encouraging creative problem-solving
- having long-range goals.

The so-called “learning organisation” or “adapting organisation” is another classification, in which traits such as systems thinking, having a shared vision, team learning, participative management systems, a climate of learning and sharing information, efficient communication and flexible structures describe the way an organisation copes with transformation and changes, and how it deals with its human resources demands (Pedler, Burgoune and Boydell, 1992).

A final classification that could generate much interest is Strümpfer’s (2005) discussion of Day and Rottinghaus’s classification of concepts used by positive psychologists according to Digman’s (1997) interpretation of the Five-Factor Model. The findings suggested three positive factors that can be used to describe a close-to-optimally functioning person:

- a socialisation process
- growth
- spirituality or religiousness.

Such a person will be recognised by many traits that indicate, amongst other things, autonomy, positive affect, social orientation, generativity, self-actualisation, competence, intrinsic motivation and creativity.

In recent times, psychology has been deluged by many overlapping positive or psychofortological trait concepts (describing wellness or health-enhancing resources), for example, personal hardiness, locus of control, optimism and sense of coherence (Snyder and Lopez, 2003; Strümpfer, 2005). Efforts have been

made to find empirical commonalities between all these factors which already show promising signs of a few factors only (Wissing, Du Toit and Temane, 2002; Wissing and Van Eeden, 2002). Like other personality traits, these health-enhancing characteristics are no less than internal personality dispositions that relate to behaviour, feelings and thoughts, and should also be researched regarding relationships with other trait measures.

### **16.5.3 Types and styles**

The concepts of traits, types and styles are similar, in that they denote a person's disposition to act in a specific way if he/she has a combination of certain traits, for example he/she may act in an introverted or extroverted way. Some would say, however, that one cannot be both introverted and extroverted. As do the concepts of male and female, these concepts represent a discontinuous description. In contrast, though, for example, Jungians would oppose such a view, since Jung believed that males and females have certain gender similarities in common.

Type and style concepts are used less frequently than trait concepts. However, Funder (2001b) cites research that shows a renewed interest in personality type. In I-O Psychology practices, as indicated in section 16.5.2, for example, type and style concepts are utilised to describe personality or behaviours such as communication, leadership, management, conflict resolution, thinking and learning styles, group roles, and stress management or coping styles, as well as personality types. A problem with the use of type descriptions is the tendency for people to be labelled as a certain type, and in much the same way as one gets used to a particular actor or actress in particular roles, one can create the impression that such a person must or will perform according to his/her personality type.

The Myers-Briggs Type Indicator (MBTI) (Briggs and Myers, 1993), like the Jung Personality Questionnaire (Du Toit, 1983), is a questionnaire based on Jung's theory of psychological type, especially his descriptions of two attitudes (extroversion and introversion) and four functions (thinking, feeling, sensing and intuition). Depending on the test scores, a person is allocated one of eight possible codes, which denotes the person's psychological type (see Table 16.4). Such a psychological type is interpreted in terms of particular behaviours or how a person will react in particular circumstances. In research, some aspects of the MBTI assumptions have been verified, for example, the relationship between these Jungian types and job interests, different types of occupations, different

ways of thinking, and other personality traits (Schultz and Schultz, 1994; Furnham, 2008).

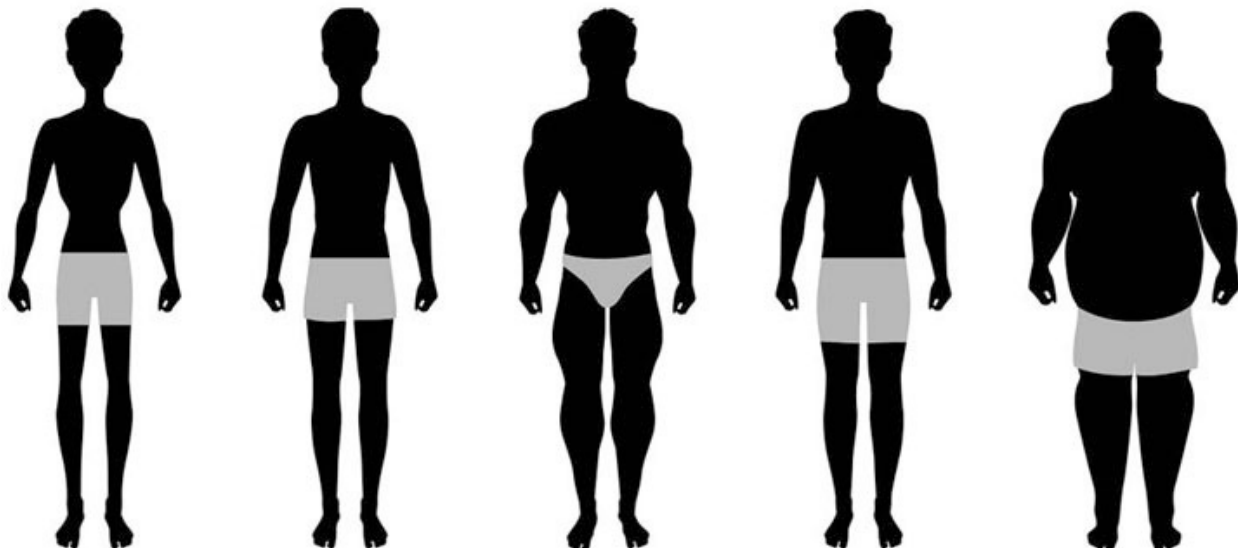
**Table 16.4** Characteristics associated with the 16 MBTI-personality types

	Sensing types				Intuitive types			
Introverts	ISTJ	factual thorough systematic dependable steadfast practical organised realistic duty bound sensible painstaking reliable	ISFJ	detailed conscientious traditional loyal patient practical organised service- minded devoted protective meticulous responsible	INFJ	committed loyal compassionate creative intense deep determined conceptual sensitive reserved holistic idealistic	INTJ	independent logical critical original systems- minded firm visionary theoretical demanding private global autonomous
	ISTP	logical expedient practical realistic factual analytical applied independent adventurous spontaneous adaptable self- determined	ISFP	caring gentle modest adaptable sensitive observant cooperative loyal trusting spontaneous understanding harmonious	INFP	compassionate gentle virtuous adaptable committed curious creative loyal devoted deep reticent empathetic	INTP	logical sceptical cognitive detached theoretical reserved precise independent speculative original autonomous self- determined
Extroverts	ESTP	activity- oriented adaptable fun-loving versatile energetic alert spontaneous pragmatic easy-going persuasive outgoing quick	ESFP	enthusiastic adaptable playful friendly vivacious sociable talkative cooperative easy-going tolerant outgoing pleasant	ENFP	creative curious enthusiastic versatile spontaneous expressive independent friendly perceptive energetic imaginative restless	ENTP	enterprising independent outspoken strategic creative adaptive challenging analytical clever resourceful questioning theoretical
	ESTJ	logical decisive systematic objective efficient direct	ESFJ	conscientious loyal sociable personable responsible harmonious	ENFJ	loyal idealistic personable verbal responsive expressive	ENTJ	logical decisive planful tough strategic critical

	practical organised impersonal responsible structured conscientious	cooperative tactful thorough responsive sympathetic traditional	enthusiastic energetic diplomatic concerned supportive congenial	controlled challenging straightforward objective fair theoretical
	Sensing types		Intuitive types	

Source: Adapted from Briggs Myers, Kirby and Myers (1993), Walsh and Betz (1995), and Briggs Myers, McCaulley, Quenck and Hammer (1998) Many other examples of personality-type classifications exist. The Greek physician Galen (about 150 AD) identified four personality types in accordance with the ideas of Hippocrates (about 400 BC) (Carver and Scheier, 1996). Each personality type was associated with internal body fluids or natural elements with accompanying temperament types. This idea of a possible relationship between personality and biological processes was taken further by Kretchmer in the 1920s and Sheldon in the 1940s, in their associations of physique and personality types. This resulted in Sheldon's describing three personality types made up of the interactions between body types (somatotypes) and temperament (Carver and Scheier, 1996; Cloninger, 1996). These types were:

- endomorphs (associated with the heavier, soft and round body types, temperamentally the more sociable and easy-going people)
- mesomorphs (associated with the more muscular body type, being more energetic and assertive in nature)
- ectomorphs (associated with thinner body types, reflecting a more sensitive, shy and intellectual temperament).



**Figure 16.2** Which body and temperament?

As with Freud's ideas, these personality types are difficult to prove empirically, though when one perceives some people's physical and psychological attributes, the ideas often strike one as viable. More recently, Eysenck's descriptions of three dimensions, extroversion-introversion, neuroticism-stability and psychoticism-tough-mindedness, in fact integrates Galen's, Kretschmer's and Sheldon's descriptions of types, which recognise the role of biological processes in personality. Ashton (2007) reports on recent research on the relationship between personality and various biological aspects, in which it is clear that genetic factors, neurological structures and neuro-chemical substances and brain processes definitely influence personality expressions such as traits. However, the exact cause-and-effect relationships still need a lot of research. Apart from Eysenck's, a number of recent biologically-based personality theories have been formulated, for example, by Cloninger, Gray, and Zuckerman (Ashton, 2007). In Cloninger's theory, for example, seven personality domains, four temperament domains and three character domains are described, which are linked to brain processes, neurological structures and neurotransmitters that activate and control the expression of behaviour.

With regard to personality types, the well known A-, C- and D-personality types are indicative of lifestyle patterns, stress management, relationships, emotional expression and work commitment. Some of these types are predisposed to conditions such as cardiovascular diseases (Types A and D) and cancer (Type C) (Matthews, 1988; Flett, 2007).

In career-development literature, Holland differentiated six occupational and work-environment types (Holland, 1985), whilst Schein identified eight so-called "career anchors", which comprise an employee's self-image and his/her vocational self-concept (including preferences, values, needs, work experiences and abilities) at a certain stage in life, which will motivate him/her to prefer certain types of jobs or job tasks (in Coetzee and Schreuder, 2010).

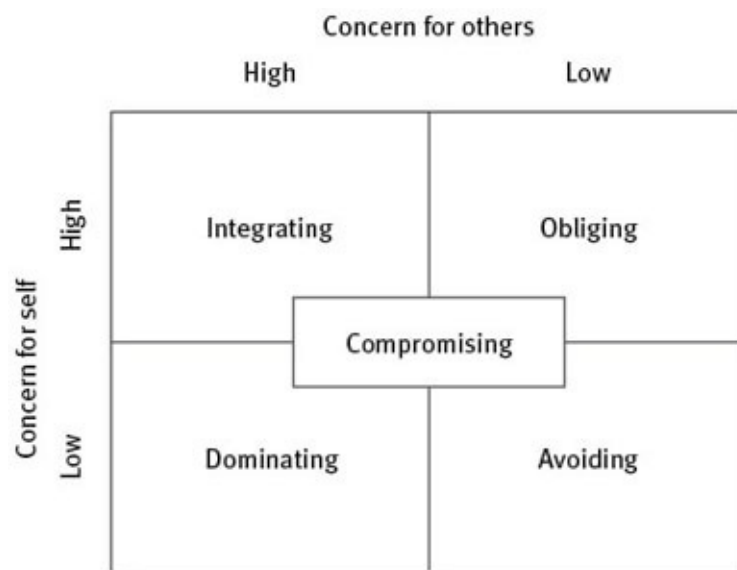
Various type concepts are applied in human resources management in relation to leadership and management. Leadership types or roles can be described as administrative, bureaucratic, expert, ideological, charismatic, symbolic, democratic, autocratic and transformational (Kreitner and Kinicki, 1995; Aamodt, 2004). In conflict management, particular styles are closely related to the type concept, an example being the description by Blake and Mouton of conflict-management styles along the two dimensions of concern for people versus concern for task completion. The conflict-management styles are:

- withdrawal (low concern for people and task execution)
- smoothing (high concern for people, but low concern for task execution)
- forcing (high concern for task execution, low concern for people)
- compromise (balance between task execution and people concern)
- problem-solving (solutions to satisfy people and task execution).

Power and conflict management in organisations and between groups can also be described by certain styles, for example the nine styles classified by Yukl and Fable (1993) and Rahim's five conflict-management styles in complex organisations (Rahim, 1985):

- integrating
- obliging
- dominating
- avoiding
- compromising.

A person or group's style can be indicated on a continuum (see Figure 16.3), depending on concern for others or self and which conflict-management styles are used.



**Figure 16.3** Five conflict-management styles.  
Source: Kreitner and Kinicki (1995) reprinted with permission of The McGraw-Hill Companies

Various types of roles that people might assume in a group or team are

described, for example by Belbin (1981) and Aamodt (2004), and these are often used in facilitating interaction in work groups. Examples of team roles are:

- chairperson
- planner
- initiator
- monitor-evaluator
- resource/information investigator
- team worker/encourager
- company worker
- completer or finisher.

Kolb (Furnham, 1997) developed a questionnaire about learning styles, which was designed to identify the type of cognitive attitudes and learning styles people utilise to disseminate information and to solve problems. In this way Kolb identified four types of learning styles:

- accommodator
- diverger
- assimilator
- converger.

These styles reflect the person's development in the acquisition of certain skills, as well as whether the person is concrete or abstract (theoretical) in thinking, and whether the person utilises active (direct) participation, or reflective (indirect) observation, in thinking and learning processes. Honey and Mumford (Furnham, 1997) also measured four types of learning styles:

- activist
- theorist
- reflector
- pragmatist.

Often used in stress-research are Latack's three types of job-related coping styles (Latack and Havlovic, 1992):

- control
- escape
- symptom management.

Also used in stress research is the Ways of Coping Checklist (WCCL) of Lazarus and Folkman, in which two styles of coping, problem-focused and emotion-focused coping are identified (Lazarus and Folkman, 1984). These

styles indicate the type of traits and behaviours that might be followed in order to manage work or general stressful situations (Flett, 2007; Maltby, Day and Macaskill, 2007).

With regard to values, Allport, Vernon and Lindzey constructed a Study of Values Scale, based on Spranger's work on types of people. Their six value orientations that denote personality types are:

- theoretical
- economic
- social
- political
- aesthetic
- religious.

Singly or interactionally, these orientations might influence many aspects of a person's life. It is possible, for instance, that the occupational values a person has and which are used to select a job and an employer, might be based on such values.

A Values Scale by Super and Nevill used in career counselling also reflects some of the values that Spranger and Allport described (Gregory, 2006; Ashton, 2007).

## **16.6 PERSONALITY EXPRESSED IN DIFFERENT TYPES OF TRAIT**

The various trait models use trait concepts (the building blocks of personality) to explain various aspects of personality, such as structure, motivation, development and adjustment. Traits not only describe personality, but also specific aspects of personality, such as values, interests, motives, attitudes and abilities. In this regard, Allport's famous statement that in some respects all people are alike, in some respects some people are similar, and in some respects every individual is unique, summarises trait theories' views on trait types (Allport, 1961).

### **16.6.1 General traits in most people**

According to Cattell and Allport, some traits are shared by most people in varying degrees (Ewen, 1998; Cavanaugh and Blanchard-Fields, 2006; Maltby, Day and Macaskill, 2007). To Allport, *common traits* are the measurable

structural and motivational units of personality, which are general or common to most people within a given culture, and which enable assessors to make nomothetic comparisons of people across cultures and situations, but are only a rough indication of the uniqueness of each person. People might have common traits, such as being aggressive, but their aggressiveness differs in quantity and quality. Allport and Cattell viewed traits such as neuroticism, ambitiousness, friendliness, intelligence, extroversion, introversion, masculinity and gregariousness as common traits that all people, as a result of similarities in hereditary potential and learning, possess to a lesser or greater extent. Personality-test scores can be used to compare these common traits. Cattell's description of surface traits seems to have similarities with Allport's idea of common traits, because *surface traits* may be present in many persons and situations. For example, a sociable person may be characterised by being mostly carefree, friendly, contented and positive. *Source traits*, though, are more fundamental; they determine personality structure and the expression of other traits, such as surface and unique traits. A source trait, such as extroversion is expressed in people's daily behaviours, and is measured by personality questionnaire scores on surface traits. For example, if a person gets high scores on carefreeness, friendliness, contentedness and positiveness, he/she should behave in a more enduring extroverted way across situations and time.

Depending on the type of analysis, questionnaires based on the 3-, 5-, 16-and other Factor Models of personality, measure general or common traits, as well as source and unique traits on which individuals and groups can be compared.

### **16.6.2 Unique traits in each individual**

Allport and Cattell recognise that some traits might be unique to a specific individual and to individuals in a specific culture or group (Ewen, 1998; Cervone and Pervin, 2008). According to Cattell, some *unique traits* are peculiar to individuals only. However, most people share common traits to varying degrees. Allport refers to the true personality as consisting of *personal dispositions*, which might be similar to common traits, but actually refer to the underlying real and unique neurophysiological structure in each trait, which will determine trait expressions and each person's style of behaviour. An example of a unique trait is seen in a person who is known as being excitable or who reacts with anxiety in many situations.

Personal dispositions manifest uniquely in each person, characterising the true personality and distinguishing people from one another. Personal dispositions

might not denote a single, dominant, cardinal characteristic, but rather a number of *central personal dispositions* or traits, which characterise a person's uniqueness. For example, one might describe the main characteristics of one's best friend as honesty, kindness, generosity, friendliness, sociability, energy and confidence. Many people might have these central personal dispositions (thus common traits in this regard), but because of the specific genetic neurophysiological attributes of each person, personal dispositions manifest uniquely in each person.

The theory of central personal traits allows idiographic comparisons of people, because there are unique manifestations in each person. Certain behaviours consist of a combination of these personal traits. For example, giving someone a gift might be prompted by friendliness, generosity and kindness, but there might also be a self-seeking expectation of getting something in return. The latter motive may be a contradictory behaviour, which Allport would call a secondary personal disposition, and which might manifest on some occasion or in particular situations. It is possible that a single personal disposition might dominate personality and behaviour, but usually each person has five to ten characteristics that denote his/her true personality.

In some respects, Cattell's concept of source traits is similar to Allport's concept of *central traits*, because it also denotes fundamental underlying and motivational structures and it defines a person's personality. Allport also utilises the concept of *cardinal traits*, which refer to a very pervasive, strong and persistent characteristic in some people, such as being authoritarian, competitive, ambitious or obsessive and perfectionistic. These traits are so dominant that they can be observed in just about every aspect of the person's life. A person could be described as being "as seductive as Don Juan" or "as wise as Solomon". These would be examples of cardinal traits. Not everyone necessarily has a cardinal trait.

In contrast, *secondary traits*, according to Allport, are less overt traits, not generalised and not manifesting frequently, but which can also be very specific in particular situations. Examples are preferences for food and colour, and particular positive or negative values and attitudes that will only be perceived if one knows someone well, such as selfishness that emerges in particular situations. Such behaviour can at times be the opposite of what a person usually does. For example, a person may be very neat at home but selfishly untidy at work where he/she shares facilities with other people.

Allport and Cattell also describe other trait concepts to denote people's

abilities, attitudes, values, motivations, intentions, interests and habits.

## **16.7 TRAITS IN PERSONALITY DEVELOPMENT**

According to the trait approach, personality development is not as important as indicated by Freud, particularly as far as the stages of development are concerned, although both Allport and Cattell attach importance to the stages in personality development. In contrast to Freud, however, Allport and Cattell do not believe that the adult personality is totally a result of what happens to a person during childhood, and discount the influence of unconscious factors. Instead, they believe that individuals are free to develop their personality according to their own motivation and goals. Allport stressed the importance of the uniqueness of personality and motivation. Both Allport and Cattell, however, acknowledge the important formative influence of parents in learning experiences, especially the influence of the mother during the early childhood years.

Allport separated adulthood from previous phases. According to him, children do not have personality and function dependently according to the satisfaction (tension reduction) of their basic, instinctual biological drives and needs. In the progressive development towards adult life and maturity, people obtain more appropriate strivings (expression of the self-concept), which denote tension-increasing and tension-maintaining goals, even in the event of hardships, and which enable adults to have purpose in life and grow independent and autonomous from childhood experiences (Ewen, 1998). Allport believed that positive psychological growth into a mature adult can only be achieved if positive conditions and a healthy biological make-up are present during the gradual development of the person's potential. If development is frustrated, the personal traits or dispositions that will characterise consistent behaviour, and are also necessary for a person to achieve life goals and function as an autonomous adult, will not develop. This issue, that people have obvious and hidden growth resources that should develop, is the mission of positive psychology, which is currently strongly emphasised (Snyder and Lopez, 2003; Strümpfer, 2005).

Trait approaches, such as those developed by Allport, Cattell and Eysenck, emphasise the importance of both biological and environmental factors in the development of those traits that are the building blocks for all aspects of personality and human behaviour. Allport claimed that as a person grows, environmental learning processes play an increasingly greater role. A baby does

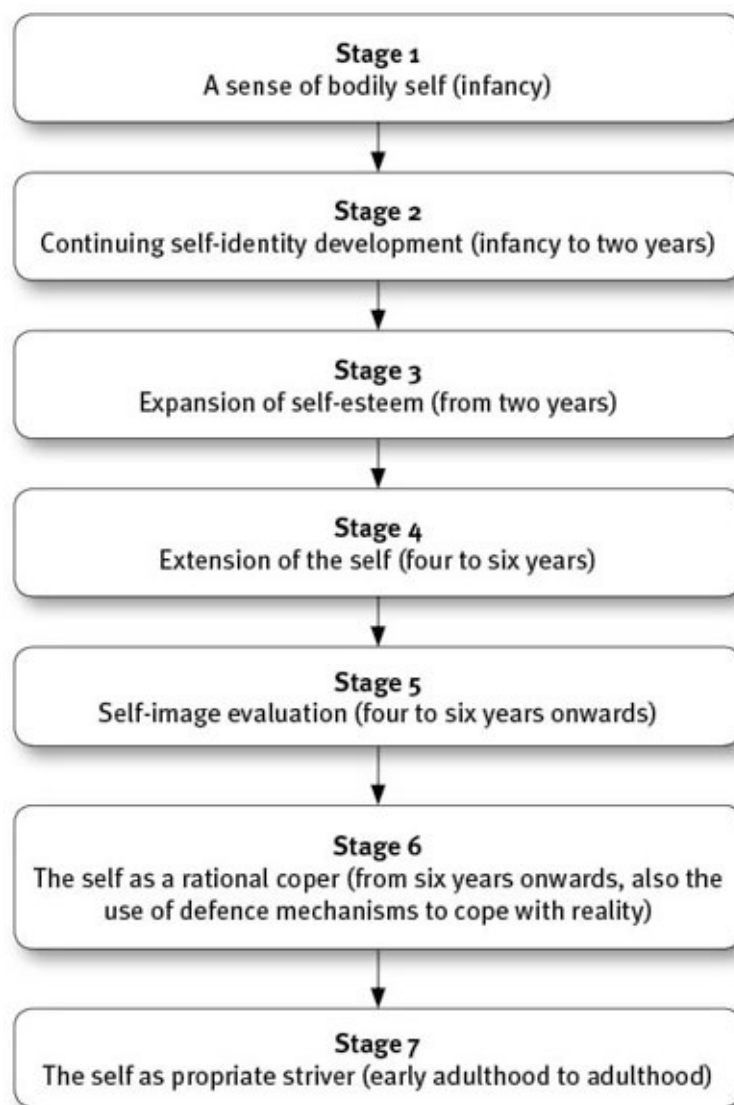
not have a personality, as bodily functions, intelligence and temperament are all determined and controlled by biological processes. Cattell found that some traits are more or less influenced by either heredity or environment. He differentiates between constitutional and environmentally moulded traits (Maltby, Day and Macaskill, 2007).

Compared with Freud and Erikson's theories, Allport's developmental theory has not had much impact on disciplines concerned with human development, although his emphasis on the progressive development of a self-identity towards fully fledged adulthood has merits. Allport uses the concept of *proprium* to describe the unifying core or most personal and important aspects of personality, whereas other theorists tend to use the words "ego" or "self".

According to Allport, personality develops through seven stages of *proprium*, from infancy through adolescence into adulthood. During these developmental stages physical processes, personal dispositions and intelligence progressively mature and become more differentiated and integrated. Shown in Figure 16.4 are the following seven *proprium*-development stages:

- The first three stages of ego development are characterised by the infant and young child becoming aware of him-/herself, others and the environment through body and biological functions. In this regard Allport's ideas are similar to those of Freud, in that he also sees the young child as reflex-driven as well as motivated by pleasure from bodily functions. At Stages 2 and 3 a sense of self-identity begins to develop as the child identifies with his/her name and takes pride in his/her achievements whilst exploring his/her world, which might be the early development of a learning and work ethic. Conflicts may arise when the child's exploring of him-/herself and his/her world is frustrated by parents and others.
- During Stages 4 and 5 (from about four to six years) the child begins to know the what and who of his/her world, and to evaluate his/her own accomplishments, successes and failures. The child now begins to value his/her own self-image, as well as the various roles people have to fulfil in life.
- Stage 6 (6 to 12 years) is characterised by strong cognitive development and the solving of everyday problems.
- During Stage 7 (adolescence into adulthood) the young person prepares for adulthood, achieves a sense of maturity, and sets and strives for long-term life goals, even when these are unattainable (Ewen, 1998).
- Stage 7 is followed by adulthood, which is independent of childhood. The

adult is an autonomous being, having his/her own self-image and motivation to rationally create his/her own lifestyle. The mature and healthy adult personality has integrated values and a unifying philosophy that gives purpose in life, and is characterised by unselfishness, warm and compassionate interpersonal relationships, self-acceptance, realistic perceptions of life, and self-insight (Weiten, 2008). Meaningful activities are connected to life roles concerning spouses, family, work, friends, hobbies and societal life. The mature adult behaves functionally autonomously, and his/her behaviour is “appropriate” in terms of him-/herself and the environment, and not based on the past or childhood.



**Figure 16.4** The seven proprium-development stages.

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## 16.8 TRAITS AND PERSONALITY DYNAMICS (MOTIVATION)

Dynamics refers to processes and factors in the motivation, change and adjustment of personality. In the trait approaches, trait concepts are also used to explain behaviour motivation. In general, trait psychologists explain a person's behaviour in terms of the strength of a trait, and for this reason, traits are portrayed in personality-test profiles on, for instance, a 9-or 10-point scale. Extremely high or extremely low scores on a trait mean that in a specific situation, the person's behaviour manifests with a certain magnitude, or that intrinsically, the person possesses a strong or less-strong trait.

Allport stressed the importance of motivation, but as it applies to the present and how people rationally and consciously create their own opportunities. In this regard, he and Cattell both differed from Freud and others who stressed the unconscious and other irrational factors in motivation. However, Allport agreed with Freud that motivation in children is based on immediate and reactive mechanisms, mostly arising from basic biological instincts and needs, such as hunger, sex and sleep. In adults, however, Allport agreed with Jung and Adler on a *teleological principle*, that motivation is based on propiate strivings (behaviour initiated by the individual's future life goals and intentions). Adults are consciously aware of what they do, and they plan and are not dependent on previous motives of childhood or environmental forces.

This is indicated by Allport's concept of *functional autonomy*, which is the essence of his ideas on adult motivation. Functional autonomy implies that behaviour acquired for a specific reason is persisted with, even when the original motive no longer applies. Obtaining a degree, for example, might now be intended for its status and career opportunities, and not because the person was initially forced by parents to attend university. The same might apply when people start working and only work for money. Later, as the people become financially independent, they might work because they enjoy work and feel themselves to be a partner in the business. According to Allport, motives are unique to each person, and people can have various motives, which cannot easily be explained by one single concept or principle.

Allport used the concept of *propiate functional autonomy* to indicate that people select the motives that they like and that suit their self-concept

(proprium). This is why people often select activities in which they are interested or in which they have strong abilities and skills.

Young children or people suffering from anxiety can seldom be functionally autonomous, because their behaviours are based on immediate gratification and tension reduction, which Allport termed *deficiency needs*. It is possible that deviant behaviours or selfishness in children might also become functionally autonomous, which means that such unhealthy behaviours could continue to direct behaviour into adulthood. In contrast, the mature adult might sometimes be motivated by deficiency needs (such as uncertainty or hunger), but has the ability and appropriate coping methods to put aside such motivations in order to achieve long-term goals and values, which Allport termed growth needs or appropriate needs. A healthy personality has outgrown original motives, accepts itself as part of a bigger world, and enjoys healthy life values and goals.

Allport explained behaviours such as habits, addictions and automatic responses that once had a motive as perseverative functional autonomy.

Many biological behaviours cannot be explained by the functional autonomy concept, as they clearly always have a biological origin. As adults, however, people mature to a stage where even the initial biological needs are satisfied in realistic, less immature ways, thus they have also become functionally autonomous.

Cattell also used traits, specifically his concept of *dynamic traits*, to describe and explain behaviour motivation and interests towards certain goals, which is why people do what they do (Ewen, 1998). Dynamic traits can be inborn or acquired through environmental learning. Cattell described three types of dynamic trait: attitudes, sentiments and ergs, as explained in the box below.

Cattell asserts that *temperament and ability traits*, which include intelligence, determine how much and how efficiently people will work in order to make progress towards their goals and be successful in their work. He believed that people's general intelligence is largely inherited, and termed it fluid general intelligence. Learned or crystallised general ability is acquired in learning processes and is not genetically influenced. The 16 source factors described by Cattell and measured by the 16PF questionnaire, are all also motivational traits. Whilst Factor B contains ability traits, the other 15 factors contain temperament traits. Temperament traits indicate the way people will behave when pursuing goals, for example, being calm or distressed.

### **Attitudes, sentiments and ergs**

Ergs are the basic, permanent innate energy of all behaviour, much like drives or instincts. (The term is derived from a unit of work or energy.) Cattell, through factor analysis, identified 11 ergs: curiosity, gregariousness, sex, self-assertion, security, protection, hunger, disgust, appeal, self-submission and anger.

Sentiments are learned dynamic traits that direct and motivate behaviour, such as interests, preferences and tendencies, like being interested in a certain career direction or activity. Sentiments concern people's central life interests, such as work, family, religion, recreation and nation, and can change and be unlearned. Every person, through the combination of sentiments, develops a self-sentiment, which actually represents the self-concept. The self-concept provides consistency to many aspects in people's behaviour, organises the source traits and attitudes, and determines how people express their ergs and sentiments.

Cattell's view of attitudes is broader than the usual meaning and refers to people's interests, emotions and behaviour towards things, situations and people. They can help to predict behaviour.

Cattell proposed the principle of *subsidisation* in motives, meaning that people's motives are mutually subordinate (attitudes to sentiments, and sentiments to ergs, the latter being the main motivating drives of all behaviour).

Other important trait contributions towards behaviour motivation are Murray's Need Theory and McClelland's concept of achievement motivation (Carver and Scheier, 1996; Cloninger, 1996), the latter often being associated with entrepreneurial behaviour (Furnham, 1997).

Murray described human motivation through underlying needs, which can be either primary biological needs or secondary psychological needs. Needs are aroused by every person's cognitive and emotional motives (the thought and feeling of wanting something) and influences from the external environment (the latter termed press).

Murray's need descriptions are actually trait descriptions and their associated behaviours. Murray's listed needs were later used in the Edwards Personal Preference Schedule (Gregory, 2004), a questionnaire created to assess some of the needs described by Murray.

McClelland built on Murray's description of the need for achievement, a topic

that has stimulated wide research and has been widely applied, for instance in the analysis of achievement patterns in societies, selection of personnel, and the management of development practices. The *need for achievement* is defined as the desire to excel, to perform well in tasks, to overcome obstacles and to improve on previous levels of performance.

In a continuation of Murray's work, several other need factors, such as the need for power, affiliation, intimacy and nurture, have been extensively researched (Carver and Scheier, 1996).

## 16.9 PSYCHOLOGICAL ADJUSTMENT

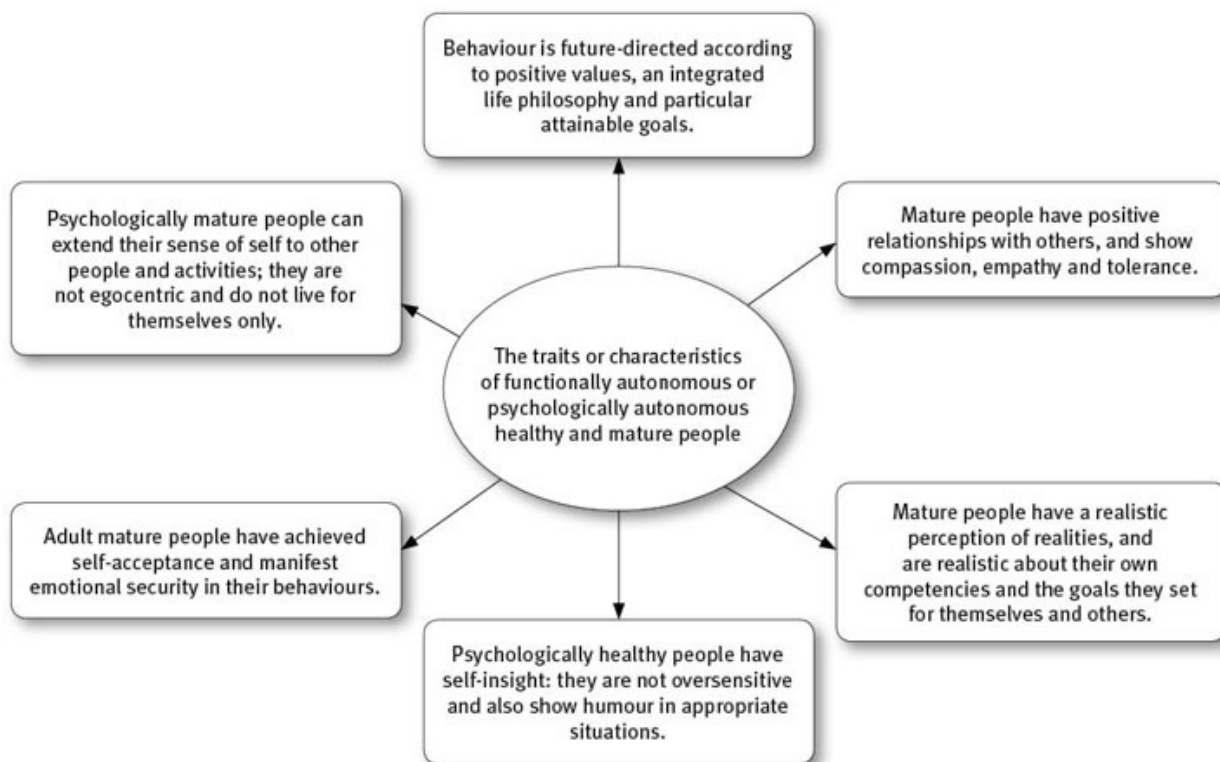
Trait approaches do not postulate a specific theory or concept to explain psychological maladjustment. Most theorists, such as Allport, are interested in the healthy, mature personality. They emphasise how personality traits develop as a result of the interplay between genetic or biological factors and influences in the environment, and how these traits give rise to the type of behaviour that can be classified as either adjusted or maladjusted. In general, traits as measured by some self-reporting techniques (such as questionnaires) are used to explain adjustment or maladjustment, particularly with regard to personality disorders and other psychological disorders (Ashton, 2007; Flett, 2007; Nevid et al., 2008).

Both Cattell and Allport emphasise genetic, biological or constitutional traits, such as physique, intelligence and temperament, which influence how personality develops. Temperament traits, especially, are coupled to people's emotional or mood expressions and how they react in situations. For example, high levels of neuroticism, and low levels of extroversion, are related to fear and anxiety in people with anxiety-based disorders, whilst criminals and antisocial people manifest with high scores on extroversion and psychoticism. Neuroticism is also associated with negative emotions such as anxiety, depression and hostility. The Five-Factor Model, and associated approaches to interpersonal behaviours, has been proposed as a diagnostic system for classifying psychological disorders, especially personality disorders (Trull, 1993; Widiger, 1993). People with compulsive personality disorders have been found to score high on conscientiousness and low on extroversion, high on neuroticism and low on agreeableness (Trull, 1992). Narcissistic persons, in contrast, score very low on agreeableness, high on extroversion and high on openness to experience. They are also low on factors such as modesty, altruism and tender-mindedness

(Corbitt, in Pervin, 1996).

With regard to psychological health, Allport emphasises the mature, adult personality as independent from possible childhood problems. However, the quality of adult maturity is dependent on how the proprium (self) has developed in all its stages during childhood towards maturity and the attainment of life goals. If the proprium development is insufficient, for example the child is insecure, lazy, dependent, aggressive, unreliable and demanding, the adult personality can follow suit. In Allport's term, the proprium cannot become "functionally autonomous". This means that behaviour traits are not sufficiently organised, integrated and consistent to give the adult the competence and mastery to manifest appropriate coping behaviours in life situations, and that life goals for a meaningful life will be frustrated.

Functionally autonomous or *psychologically healthy*, or mature people have the traits or characteristics shown in Figure 16.5.



**Figure 16.5** The traits or characteristics of functionally autonomous or psychologically healthy or mature people.

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The criteria shown in Figure 16.5 are related to the views of positive

psychology, or salutogenesis and psychofortology (Strümpfer, 1995, 2005; Snyder and Lopez, 2002; Snyder and Lopez, 2003; Nelson and Copper, 2007), which states that healthiness or wellness is a state of *optimal functioning* in which people use or are facilitated to use their available and hidden growth resources. The many positive psychological or salutogenetic concepts (such as an internal locus of control, resilience, optimism, potency, sense of coherence, learned resourcefulness and self-actualisation) in fact refer to internal dispositions, traits or attributes, which people use to achieve optimal functioning and to stay healthy.

## **16.10 CONSISTENCY IN PERSONALITY**

The accepted definition of personality traits as enduring patterns of behaviour in people across situations and time also indicates that personality traits are a more or less consistent phenomenon across cultures.

### **16.10.1 Consistency via trait consistency in people**

There is agreement amongst trait approaches that traits provide stability and consistency to personality in people, across time, situations and cultures, which make prediction and comparison of behaviour possible. In most cases, the trait approaches also tend to align this consistency with hereditary or biological factors (Funder, 2001a) and as a basis for assessment and prediction of behaviour. The controversial issue is whether traits are in fact consistent indicators of personality, especially amid some findings that personality measurements are not the best predictors of actual behaviour (Guion and Gottier, 1965; Barrick and Ryan, 2003).

This means that success or failure in work performance is also attributable to influences other than personality. This is in contrast to measurements of cognitive or ability factors, which generally have high predictive powers for job success and training success criteria. The longitudinal stability of intelligence and achievement behaviours is also well established by research. More recent meta-analytical research, however, indicates personality factors to be better predictors of occupational behaviours than was assumed previously (Barrick and Mount, 1991; Furnham, 1997; Ashton, 2007).

Research summarised by Funder (2001a), Barrick and Ryan (2003) and Ashton (2007) indicates that most personality researchers now agree that people's average personality traits (such as those based on the "Big Five") across

the lifespan are sufficiently stable to warrant the use of personality measures as reasonable predictors of behaviour in various life contexts. Evidence exists that after the age of 40, personality traits might stabilise, mostly because people have reached identity integration and settled in environments that they prefer (Roberts and Del Vecchio, 2000). However, it is also evident that, considering individual differences, biological and environmental changes and specific situations might contribute to changes in specific personality traits for specific people during time spans of up to 30 or 40 years (Roberts, Helson and Klohn, 2002; Caprara, Caprara and Steca, 2003; Maiden, Peterson, Caya and Hayslip, 2003; Srivastava, John, Gosling and Potter, 2003).

### **16.10.2 Consistency within and across situations**

Another explanation for the level of consistency in personality measurements is called “situationism”, which means that the situation in which a person operates influences the person more than personality itself (Mischel, 1968; Hough, 2003). This is also the view of people, such as social psychologists and behaviourists, who emphasise the influence of environmental factors. With respect to situationism, most research, however, indicates that situations generally do not contribute more to the accurate prediction of behaviour than personality does (Funder and Ozer, 1983; Funder and Colvin, 1991). In terms of consistency of behaviours between situations (cross-situational stability), it is asserted that correlations of 0,40 indicate adequate consistency, though some authors are still not convinced (Funder, 2001a). The type of correlation varies depending on the type of personality factors involved, and 0,40 cannot depict aggregate trends (Hogan, 1998). In a study by Funder and Colvin (1991), correlations between situations for different personality domains varied between negative correlations and more positive ones between 0,09 and 0,70. An interesting finding is that some behaviours have consistency amongst themselves, such as particular habits and acts. Borkenau and Liebler (1992) found that when different judges rated the same behaviours on either visual or acoustic information, their ratings were quite similar.

A fundamental mistake in situationism is the under-emphasis on the “human factor” in situations. In fact, behaviour in most situations is influenced more by a person’s perception of the situation than by the situation itself. In this regard, a cognitive view of stress is that a stressor, for instance work overload, will cause stress reactions only once the employee perceives him-/herself as not being able to cope with the demands of the work.

In general, contemporary research, such as that summarised by Hogan, Harkness and Lubinski (2000), repudiates situationism. The arguments are as follows:

- Personality consistency in traits is in fact better than was assumed earlier, that is, correlations are often higher than 0,30.
- Definitions of consistency and situations are still vague.

However, Barrick, Mitchell and Stewart (2003) argue that the relationship between personality and situations depends on the type of motivation or goals involved. This implies that a person's expectancies, values, valences of goals and emotional states in achieving goals influence his/her behaviour in situations. They found that particular personality traits might be more or less influenced or influential in situations where the processes of goal achievement or the quality of work are important for individuals.

However, as is the case with taxonomies or classifications of personality traits, specific research is needed to construct specific situation taxonomies for particular contexts (such as learning and work performance) to enable a more accurate establishment of the relationship between specific situations and broad or specific personality traits.

### **16.10.3 Consistency from person-situation interaction**

A third approach to explaining the consistency of personality is interactionism (Bandura, 1986; Endler and Edwards, 1986), where consistency of personality or human behaviour is studied through a consideration of the effects of the person, the situation and the behaviour. Interactionism (of which Cattell's definition of personality is an example) states that personality, the situation and resultant behaviours in collaboration contribute to personality consistency, and both should be taken into account in behaviour predictions.

Small changes in a situation, such as waiting longer to be served, might also influence personality expression and behaviour in people. However, such people will probably behave in the same way in other, similar situations.

This principle of interactionism is important in human resources development whenever one wants to place people in situations, with or without other people, to perform certain tasks.

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**Examples of different personalities reacting differently  
in similar situations**

### III. Similar situations

Similar situations can influence some people differently, as the examples below shows:

- The achievement-oriented person might be more productive under stressful conditions than the person who cares more for relationships on the job.
- A person who is prone to depression might commit suicide because of a traumatic event such as the loss of a job, whilst other people would not.
- Meetings prompt some people to action, whilst others become silent and withdrawn. The very active person from the meeting may then be more passive at a party, which may prompt the quiet people of the meeting into action.

It is also important to remember that different people with different traits might “change” situations, which might cause the results to be different from those expected, or the situation to be different for some people. For example, in a meeting, a dominant person might influence interactions to such an extent that his/her own behaviour changes, and other people might react negatively, or a person who usually offers creative ideas and solutions might withdraw and suddenly seem to be unproductive.

Traits do not apply in all situations to the same extent. One can test this by observing a colleague’s assertiveness in the work situation and comparing it to his *her assertiveness at a sports club, for example*. He/she might be assertive in a one-on-one situation, whilst in a group situation he/she might be described as submissive. Outgoing people are not always outgoing in all situations. In general, people learn appropriate behaviours for situations and tend to behave consistently in particular situations, which provides for consistency across situations. In some individuals, one also learns to expect consistency of behaviours across time and situations, whilst others might always or mostly behave inconsistently. This also illustrates the learning perspectives view that people acquire contingencies or hierarchies of behaviour.

Consistency across time, especially over longer periods of time (longitudinal consistency), is also a controversial issue with respect to personality traits (Cavanaugh and Blanchard-Fields, 2006; Ashton, 2007). Longitudinal research (research over longer periods) on people’s own reports about changes, and of questionnaire data, shows that, in general, personality remains quite consistent,

although some changes in certain traits might occur, for example, a person becoming more responsible and independent (McCrae and Costa, 1989; McCrae, 1993). One might note fluctuations in a person's behaviour from day to day, which might be ascribed to particular hassles or events on different days. During such brief periods, some behaviours tend to be stronger, which might lead one to believe that personality traits are inconsistent, but if one compares the same behaviours over longer periods one might find more consistency.

As far as stability of personality is concerned, it is necessary to acknowledge that the causes of behaviour are many and complex. People are not all the same and react differently in situations and across time.

Most research on consistency in personality tends to verify that enduring personality traits and related behaviours (a person's personality and behaviour repertoire or behaviour signature) do exist in people and across situations and time. This is demonstrated by particular characteristic patterns of behaviour in individuals and groups: as portrayed by trait descriptions and models, as described by people themselves and as measured by personality questionnaires. Consistency in personality in more recent research is also coupled to biological research that indicates that stable personality traits are related to behavioural genetics and the physiological attributes of people.

However, psychological knowledge of personality and behaviour consistency will become more specific when research identifies and describes situation-specific personality classifications. This means a taxonomy of signature situations, work situations and performance criteria, in which specific personality traits or trait subfacets and related behaviours apply (Barrick and Ryan, 2003). The same principle will apply if one wants to predict behaviour in other situations more accurately, for example interpersonal or relationship behaviour, or learning behaviour in specific situations (Holmes and Cameron, 2005).

## **16.11 SUMMARY AND CONCLUSION**

Personality traits and related concepts, such as types and styles, are abstract concepts for the more enduring, real or underlying behaviours and patterns of behaviour in people, with regard to personality structure, motivation, development and psychological adjustment. Trait explanations for personality and individual differences are a much-used paradigm in basic research into personality and related phenomena, as well as in many applications. In the work

context, trait concepts are used in the development of psychometric techniques, in psychological assessment, and in the prediction of work-related personality factors.

Although traits refer to dimensions of personality and can never tell all about personality, integrated views, such as Allport's, and trait models such as the 3-, 5- and 16-Factor Models, go some way to explain personality structure, describing personality as an integrated whole, and making provision for the uniqueness in each person. These models and others, such as the interpersonal trait approaches and type and style explanations, explain personality according to more or less independent factors and related subfactors or specific traits.

The development of traits might have genetic sources, but they are shaped and influenced by situations and how people behave in situations.

With regard to motivation, certain traits also energise behaviour in a certain direction, for example, Allport's trait concept of functional autonomy refers to adult motivation that has grown independently from previous motives.

Psychological maladjustment in people refers to the manifestation of exaggerated traits, whilst psychological health refers to the development of maturity, which includes attainment of life goals, functional autonomy and the manifestation of healthy traits. These healthy traits determine optimal functioning and behaviour.

Psychological assessment and prediction according to the trait approach are both based on the premises that all people have more or less of certain general and unique traits, and that traits are quite consistent in people and across time and situations. Behavioural consistency in a person can be related to enduring traits in the person and consistency in traits across situations and time, but also to how the person influences situations, which may change traits and the situations.

Quite a large body of research, especially with regard to the FFM, also supports personality concepts or individual differences as useful in understanding and predicting behaviour in various spheres of human functioning (Ashton, 2007). Many work-related trait classifications have been established, and the relationship between personality and work-related criteria is well established.

Personality traits provide an empirical paradigm to describe and predict personality through more objective and accurate assessment. If one applies the rigorous criteria of scientific thinking, it is possible that the trait approach and its psychometric tradition of assessing personality variables represent the only true

paradigm in psychology. Evidence of this scientific status includes the following:

- models such as the FFM, which provide a well-researched description of the structure of personality traits (McCrae and John, 1992; Goldberg, 1993; Funder, 2001a)
- advances in thinking about, and methods of, personality assessment (Nicholson and Hogan, 1990), especially a richness in personality questionnaires
- research on the existence of personality traits, such as heritability (Loehlin, 1992), longitudinal stability (Costa and McCrae, 1995), universality of traits across situations and cultures (Yik and Bond, 1993), and the use of traits in many applied fields (Barrick and Mount, 1991; Miller, 1991; Ones, Viswesvaran and Schmidt, 1993; Ashton, 2007)
- research on personality traits that facilitates a better understanding of various concepts and issues about human behaviour, such as work behaviour and management, the self-concept, sexual behaviour and evolutionary psychology, personality disorders, interpersonal behaviours, violence, unsafe sex, alcohol abuse, dangerous driving, marriage, unconscious behaviour, hypnosis and traits in cross-cultural contexts, in Wiggins (1996), Church (2000), Funder (2001b), Barrick and Ryan (2003), and Cervone and Pervin (2008).

Interesting developments include the use of positive psychological concepts within trait models and to determine the factor structure and relationships of these concepts with other variables and measures of personality. Efforts are also made to understand psychological disorders better with regard to interpersonal or relational schemas and underlying personality traits.

On finer analysis, for instance by Wiggins and Trapnell (in Wiggins, 1996), Pervin (1996), Funder (2001b), Church (2000), McCrae and John (1992), and Barrick and Ryan (2003), the trait approaches are more than merely empirical research. They offer much about the classical issues raised in personality theories: personality structure, motivation, development and adjustment, as well as issues on research and measurement. Trait theories of personality also offer much on philosophical questions about the nature of humans, constructs to describe human characteristics and differences, and clear guidelines on which constructs and phenomena should be researched and studied in personality psychology.

Still, discourse about traits continues, such as about what traits really

represent, how many traits should be used in models, whether traits refer only to behaviour or also to feelings, thoughts and values, and whether traits are universal traits in a cross-cultural context. Much more research is also necessary to establish more broad and specific personality-trait classifications in various contexts, as well as taxonomies of specific situations and how these relate to personality traits. Trait psychology should also do more to explain how personality traits translate into behaviour and how personality traits develop in people across the lifespan (Pervin and John, 1997, 1999; Eysenck, 2004).

In human resources practices, where much is made of the fit between employees and the demands of the business environment, the empirical and objective assumptions of the trait approaches offer a lot. I-O psychologists will do well to try to locate or integrate their existing thinking, theories and practices in the trait paradigm, which has come a long way in integrating knowledge on personality.

Though trait psychology might never be sufficient to describe personality completely, it plays an important role in research on personality and psychology in general, the work-relatedness of personality and the integration of psychological knowledge.

## **16.12 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Traits can be depicted as:
  - a) constructs that indicate more or less enduring behaviours
  - b) concepts that indicate underlying unconscious behaviours
  - c) primarily a holistic description of personality
  - d) certain obvious elements of personality only
  - e) not similar to the behaviourist idea of responses.
2. The best indication(s) for personality consistency is/are that:
  - a) traits are quite enduring in the same person across time and situations
  - b) traits, as expressed in behaviour, are quite constant across situations
  - c) some traits are quite similar in some cultural groups
  - d) traits will manifest quite similarly over the lifespan
  - e) all of the above.
3. Traits that may have a quite dominant influence on other traits and

behaviour are referred to as:

- a) proprium traits
  - b) central traits
  - c) cardinal traits
  - d) common traits
  - e) source traits.
4. Imagine that, in your work situation, you observe a person being uncooperative, often uncertain about his tasks and not very precise in the completion of his tasks. Which of the following trait factors might his personality be classified under?
- a) introversion – extroversion
  - b) conscientiousness – lack of direction
  - c) agreeableness – antagonism
  - d) tender-mindedness – tough-mindedness
  - e) neuroticism – emotionally stable.
5. Which one or more of the following work methods will not primarily be performed according to the trait approach?
- a) executing job analyses to determine job competencies
  - b) doing research on the relationship between intelligence and coping behaviours
  - c) classifying people's behaviour on a rating scale during a group-discussion exercise
  - d) analysing the underlying themes in people's discourses
  - e) administering psychometric tests during a selection process.

## **Answers to multiple-choice questions**

1 = a; 2 = e; 3 = c; 4 = b; 5 = d

## **Issues for discussion and practice**

1. Describe personality structure and motivation by using trait theory.
2. Discuss the consistency of personality with regard to various approaches on consistency.
3. Using any existing job description or your own job description, make a list of the personality traits you think a person should have in order to perform well in the performance areas in the job description.
4. Ask family members and friends to independently describe you using at least five characteristic traits when you were 16 years of age and as

you are now. Try to assess:

- a) whether your family and friends agree on the trait descriptions
  - b) whether you are still more or less the same person, and which changes have taken place.
5. Debate the role of culture in trait formation. Indicate whether you think it's a question of personality influencing culture, or culture influencing personality. Give reasons for your opinion.

## CASE STUDY

Alex, 38 years of age, thinks he is enjoying his life, though he mostly likes to do things on his own and in his way. He has a good routine every day: getting up, making his bed, eating breakfast, sweating it out in the traffic, and working from 7:30 to 16:00. Every afternoon between 17:00 and 18:00 he visits his elderly mother in a home for the elderly.

Alex likes his work as an administrative officer. He knows exactly what he must do and does not have to talk to too many people during the day. His colleagues, however, know that he wants to receive his tasks on time if they expect his work to be finished in time. If Alex feels they are giving him problems, such as not greeting him in the mornings or returning sloppy work or untidy files, he will not show any reaction or emotion, but he will, for a time at least, ignore them. However, often he cannot help feeling frustrated and angry when they talk about him behind his back, especially when they call him a "nerd".

Secretly, Alex often laughs when he thinks about what they might think of him. If only they would take the trouble to know him better. Or perhaps he is not concerned about what they think or feel or how they treat him. What is important to him is that he believes he is okay and that his mother thinks highly of him. She is under the impression that he has a managerial position. Apart from watching TV, he also goes for long walks and does solo rock climbing and parachuting at the flying club. None of his colleagues know that he is an experienced parachute jumper and an able rock climber. Actually he would have liked to be a pilot. He often daydreams of being a famous fighter-pilot, and will talk at length about this with his sister's ten-

year-old son, James. Alex loves to visit his sister and he knows that James adores him.

Alex would like to be married, but as yet has not met the right person, and is also not sure whether he would like to share his world in such an intimate manner.

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1. Make a list of Alex's personality traits that you can identify from this scenario.
2. Describe every trait that you have identified by citing behaviours from the scenario, and also indicate what influenced these traits in Alex.
3. Try to classify these traits in terms of one or more of the trait models or classifications in this chapter.
4. Identify and discuss any traits or behaviour that you think relate to positive psychological concepts.

## **CHAPTER 17**

# **Personality through self-experiences**

*Ziel Bergh*

17.1

## [Introduction](#)

17.2

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## Main assumptions of humanistic approaches

17.4

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17.6

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Optimality and deficiencies in being



## Summary and conclusion



## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- explain the basic assumptions of the humanistic perspectives
- describe a person's self-concept by analysing the attributes that determine the self
- illustrate the meaning of the concepts of self-actualisation and peak experience
- indicate how you would use humanistic ideas to motivate people in the work situation
- sketch the process of self-development according to humanistic ideas
- explain psychological health according to the humanistic approach
- list and explain humanistic concepts that denote optimal human functioning and well-being.

## 17.1 INTRODUCTION

Why do people often differ greatly in their experience of something, or tell different stories of the same event? Why do some people see only the positive side of things, whilst others experience events as negative and problematic? Why do people feel misunderstood? Why do people talk about a “generation gap”? How is it that certain people can find so much meaning in life, even after traumatic events? Why do so many employees complain about not being recognised or not being given sufficient responsibility and freedom in their jobs?

These questions are some of those that the humanistic perspective on personality tries to answer. This perspective engages with the subjective and unique experiences of each person that give meaning to life. Though this approach lacks objectivity and research support in comparison with trait psychology and behaviourism, it represents a necessary paradigm for psychologists to use in understanding how people construct, from their own subjective experiences, their self-images, their perceptions of others, and their perceptions of the world.

For the I-O psychologist, the positive nature of humanistic concepts is important in assessing and facilitating optimal functioning and well-being in

employees, and also in rethinking job design to render work more meaningful. The contributions of the humanistic perspective is especially important and valuable in understanding the self (the core of personality descriptions for most people). This perspective also shows that many human behaviours involve some form of self-reflection to evaluate or confirm self-perceptions. The practices of interactional processes – such as interviewing, therapy and group facilitation – are also richer because of the emphasis on human dignity and growth emphasised by the humanistic approaches.

The *aim* in this chapter is to explain personality according to the humanistic, phenomenological and existential ideas according to which personality is formed and maintained in the process of experiencing life in a personal and unique way.

## 17.2 A BACKGROUND TO THE HUMANISTIC VIEW OF HUMAN NATURE

Humanistic psychology, which also uses philosophical ideas from phenomenology and existentialism, views being a person or having a sense of self as a continuous rational process and a combination of all personal experiences and choices made in relation to the world, and the taking of responsibility for these. Humanistic psychology, in its positive approach, reflects what human beings can or should be, based on the fact that human nature is seen as inherently good, positive and trustworthy, and full of potential that can be developed into optimal functioning.

Each person has his/her own perceptions of reality, based on personal and private experiences, which is the reason why each person's behaviour has to be respected as unique and considered in a personal or idiographic context. A central idea is the uniqueness of every person's context and frame of reference: how each individual experiences and interprets him-/herself in relation to mental, physical, religious, social and psychological phenomena in the world.

Humanistic approaches are often referred to as the “Third Force”, in addition to psychoanalytical and behaviourist approaches. Humanistic views of personality derive from a more optimistic view of personality, in reaction to:

- Freud's rather pessimistic and deterministic emphasis on the unconscious and on primary life and death instincts
- the behaviourists' emphasis on the deterministic influence of environmental factors, animal research applied to people, and the fragmentation of personality.

The humanistic approaches are also a reaction to the existentialists' emphasis on despair in life. Maslow and Rogers, also referred to as humanist personality theorists, and more recently, the positive psychology approach, are more concerned with joy, love, positiveness, health and creativity in people's striving to achieve self-actualisation (Pervin and John, 1999).

The humanistic approach, like many others, is not based on one single theory, but is made up of various theories within the phenomenological, existential and self theories. The humanistic approach originated in the USA during the 1950s, spearheaded by Maslow, Rogers, May and Kelly. Their main concern is with people being intrinsically good and people's quest to achieve their potential. Self theories in the humanistic approach also extend and expand various aspects and concepts of the ego or self to explain how individuals can evolve into fully functioning or self-actualised people, and to live meaningfully without necessarily being enslaved by inner drives or circumstances. The concept of self and its many variants (for example, self-awareness, self-evaluation, self-control and self-esteem) is arguably this approach's main contribution to psychology, and is a concept accepted and used by most. Self-concepts and their relationships with many other variables related to human behaviour are one of the most researched and written about concepts in psychology (Leary and Tangney, 2003; Baldwin, 2005).

Existentialism and phenomenology preceded the humanistic approach and originated in Europe. Contributors include philosophers and psychologists such as Kierkegaard, Heidegger, Sartre, Van den Berg, Frankl, May and Jaspers (Shultz and Schultz, 1996; Meyer, Moore and Viljoen, 1997; Ewen, 1998b; Cervone and Pervin, 2008). The ideas of existentialism and phenomenology in personality psychology derive from people's efforts to transcend or move above or outside themselves, to become people by being open to all experiences and by rising above the harsh realities of life. Reality is seen as only how every person uniquely lives the "here and now" through his/her own subjective experiences. It was thought that people could not be studied using the past or outside their context, but rather should be studied as "existing or being in the world". People exist in relationship to the world around them (the "Umwelt"), with the social world of other people (the "Mitwelt") and with the psychological inner world of each person related to the self, values and potential (the "Eigenwelt") (Ewen, 1998b:443).

The theories of Rogers, Maslow and Kelly are theories in their own right, and currently have been energised by the emphasis on positive psychological

concepts and practices to promote optimal human functioning and well-being (Snyder and Lopez, 2002; Strümpfer, 2005). Though the initial philosophical ideas still have an enormous influence on the thinking and practices of personologists, in religious beliefs, and in many applied settings, existential and phenomenological approaches battled to survive. They found more recent application, though, in Rychlak's work (Rychlak, 1988) and cross-cultural psychology and research.

In cross-cultural psychology and research, psychologists try to indicate how humanistic and existential explanations might apply to other cultures (Schweder and Sullivan, 1993; Cross and Gore, 2003). Cross and Gore (2003) write extensively on cultural models of the self to explain differences between Asian, Western and other cultures and how they influence behaviour. Triandis, in contrast, indicates the necessity of distinguishing between cultural experiences that are shared by all cultures ("etics") compared with experiences that are specific or distinctive to certain cultures ("emics"). Research according to the social-constructionist approach, for example by narrative or discourse analysis, is also a manner of inquiry to find how meaning can differ as a result of people's unique and different personal experiences.



Reina: experiencing the now: self and the other

## 17.3 MAIN ASSUMPTIONS OF HUMANISTIC APPROACHES

Together with sociologists and social psychologists, humanistic theorists are concerned with the strong influence that social factors and the important people in individuals' lives have on those individuals' personalities. Rogers, for one, discussed the corruptive and destructive effects that poor relationships and society can have on the otherwise intrinsic goodness of people.

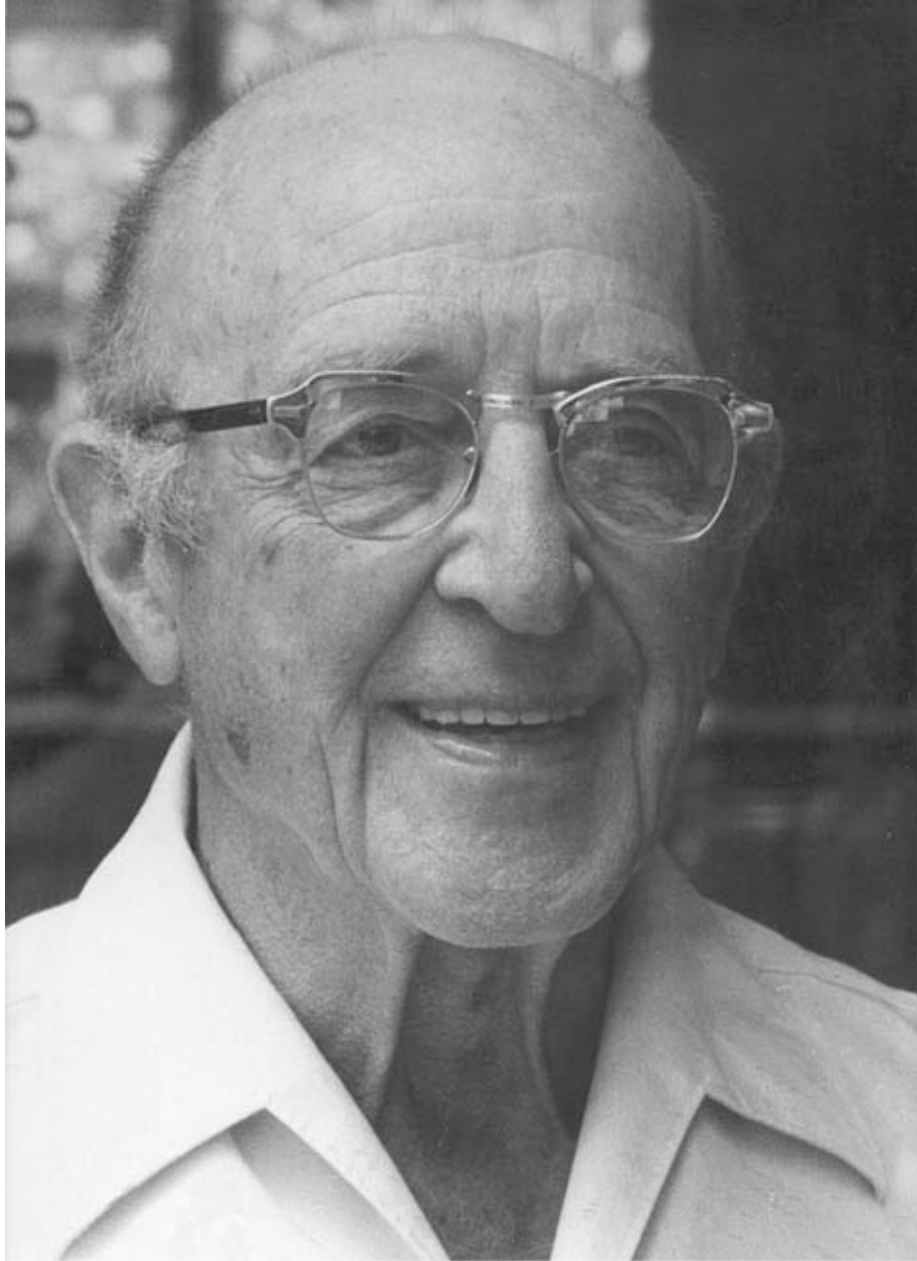
### 17.3.1 Subjective or phenomenological experiences

People do not react only to physical realities, which are perceived (seen, felt, heard and smelt), but also to how they subjectively interpret events and phenomena. This is an important principle in understanding why employees, for instance, often react so differently to the same stressors at work.

The subjective interpretation of events and phenomena is also the reason why many authors and practitioners, for example social constructionists, believe it to be dehumanising to assess a person's behaviour and compare it with others according to particular numerical or statistical norms or a general law. Subjective experience can be measured only when it happens. The moment an event, feeling, action or thought passes, it is gone – a memory, no longer reality – and is thus not easily measurable, except through recollection, reflection and introspection, which can be unreliable.

A person's self-concept is formed by progressive subjective experiences during personality development. In this way a person's self-concept or the "integrated pattern of subjective experiences" influences his/her feelings, reactions and thinking in many areas of life (such as values and attitudes about things, relationships with friends and family, occupational choices, and work attitudes), as well as the way he/she copes with the demands and changes of work life.

The idea of self-experience is used extensively in training, development and therapy groups, in which the emphasis is on experiential learning about oneself and others by experiencing whatever happens in such groups, without undue pressure from the groups' facilitators.



**Figure 17.2** Carl Rogers.

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### **17.3.2 The uniqueness of each individual**

People's experiences are not only subjective, but uniquely so, and can never be the same as those of someone else. Therefore, in humanistic approaches, measurement and other applications are often idiographic, focusing on the experiences of the individual rather than on comparing numerical scores and

norms with those of others. Subjective experiences are viewed as more important than objective measurements.

### **17.3.3 Personality as a Gestalt or holistic phenomenon**

Humanists also consider the person and his/her behaviour as a whole, totality or Gestalt, which is in contrast to the views of behaviourists (who see personality as stimuli and responses) and dimensional theorists (who see personality as traits). It is also different from Freud's description of personality in various structures, such as the id, ego and superego. For humanists, personality is an integrated whole and more than merely the sum of its various parts. The integration of physical, mental, psychological and social characteristics, and all their attributes and relationships, is what makes a person function as a coherent whole person. Perhaps this integration is what people miss and grieve for in the trauma of, for instance, death or divorce, losing a job, or becoming disabled after an accident.

Sometimes, however, the use of only particular factors to understand some types of behaviour in context does make sense, even working from a humanistic paradigm, as long as one recognises that other factors might have an influence. This is often done in the work context, for example when studying employees' job contents, the selection of job applicants in terms of certain critical traits, the administration of performance appraisals according to particular work-performance criteria, and the surveying of only some organisational factors. It is often time-consuming and impractical to assess holistically or systemically. However, psychologists need also to be aware of how a single intervention, for instance disciplining one employee only, or obtaining or losing a job, can change or influence a workplace or an individual.

### **17.3.4 The intrinsic goodness, potential and self-actualisation of people**

In contrast to psychoanalysis, according to which a person often experiences conflict owing to internal anxieties and external forces, humanists believe in people's intrinsic ability to grow towards healthy adjustment, maturity and the achievement of potential and goals. The concept of self-actualisation is used to refer to a person's intrinsic ability to continually choose and achieve what he/she wants to be. The tribulations of much human experience have caused some to question this view (see the box below).



### **ETHICAL READER: Do many never achieve self-actualisation or never have a choice?**

One might ask how any person's goodwill, positiveness or potential can withstand the seemingly insurmountable obstacles of life that millions of disadvantaged people experience. In many instances the tragedy of the world is that many never achieve self-actualisation, except if one assumes that self-actualisation for some might be at the most basic level of satisfying daily biological and safety needs.

Perhaps the key lies in the resilience of individuals and groups to continuously withstand overwhelming odds and to eventually succeed. Did survivors of despair, such as prisoners of war or victims of other human atrocities, transcend the realities of their circumstances? Victor Frankl, a renowned existential psychologist and father of logotherapy, based some of his positive ideas on freedom and finding meaning in life, or giving meaning to life, on his personal sufferings in the German concentration camps at Auschwitz and Dachau during the Second World War (Möller, 1995). Resilience and other such resources, obvious or hidden, can be facilitated in order to promote human health and optimal functioning (Strümpfer, 2005).

#### **17.3.5 Free will or self-determination**

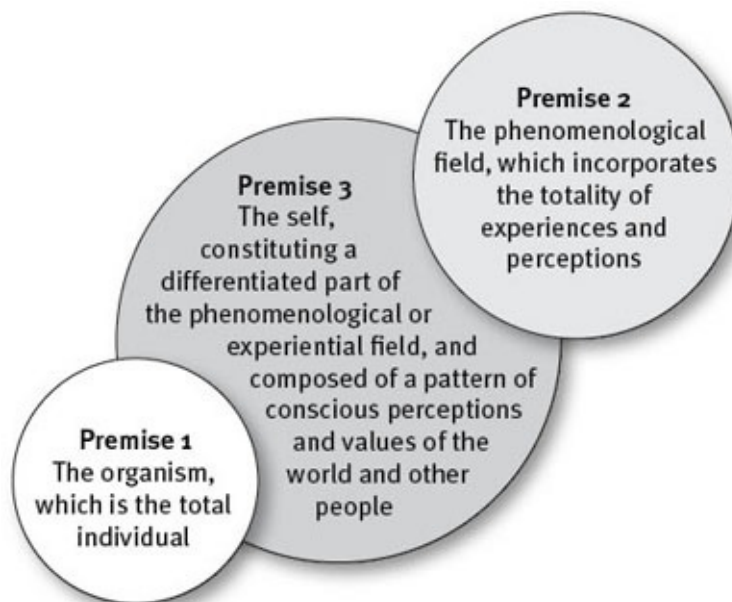
Coupled to self-actualisation are people's freedom of choice and their ability to be in control of what happens to them (for example, electing to be governed by their own wishes, and not by forces in the past or outside their control). Thus freedom of choice also means taking responsibility. The idea of will to freedom and meaning coincides with cognitive psychology's concept that people can take responsibility for what happens to them (showing an internal locus of control) or they can blame others or attribute all to the outside world (showing an external locus of control). The humanistic-phenomenological view of humankind stresses people's unique and subjective experiences and meaning in the context of their existence in the world and with others, as well as the more optimistic belief that people are more in control of their own lives and destinies. This assumption possibly highlights the real meaning of "being" human.

### **17.4 SELF-CONCEPT: THE INTEGRATING**

# PERSONALITY STRUCTURE

Many humanistic theorists, such as Rogers, are referred to as self psychologists or ego psychologists, making the concept of *self* the central theme in their exposition of what personality or personality structure is. Humanistic and related theories use the concept of the self differently from Freud's concept of ego, in the sense that they view the ego as more autonomous or independent, having its own energy, and being able to influence personality development throughout the life cycle. In contemporary psychological theory and research, self-concepts are widely accepted and viewed as an integrating and organising concept in the behavioural and social sciences (Leary and Tangney, 2003).

Essentially, Rogers's theory comprises three premises, as shown in Figure 17.3 (Schultz and Schultz, 1994; Carver and Scheier, 1996; Ewen, 1998a; Cervone and Pervin, 2008). These involve the phenomenological field, the organism and the self.



**Figure 17.3** Rogers's theory: the three premises.

The phenomenological field represents all experiences, perceptions and meanings attached to objects and events outside the person, or internal experiences and meanings about the person's own self.

The organism refers to the total psychophysical individual or person. The individual responds to the phenomenological field as an organised entity to

satisfy his/her own needs. His/her basic motive is to actualise his/her own potential, and to maintain and improve him/herself. The individual can symbolise (recognise) his/her experiences so that they become conscious, can deny them and keep them “unconscious”, or can ignore them altogether. Thus the organism is an organised, rational entity that controls what the person wants to experience and wants to retain from these experiences.

Rogers’s concept of the self refers to an individual’s perceptions of him-/herself as a result of the person’s (the organism’s) many experiences in the phenomenological field. The self might include many “I”, “mine”, “me” and “them” perceptions, which might be very personal and might influence, and be related to, other people, and other aspects of the world and environment. The individual perceives that objects, people and events of significance to him/her are related to the “I”, and eventually differentiates part of the perceptual field as the self. Thus the self is an organised perceptual pattern, the functioning individual in fact. The self also tends to be quite consistent across time and situations, which is because the self actually consists of those “proven” ideas that the individual has experienced “work” for him-/herself.

This idea of self-concept consistency or *patterned experiential knowledge* of the self is similar to the trait and learning psychologists’ idea of a pattern or hierarchy of enduring behaviour that is mostly consistent in people, as well as across time and situations. A person’s self-concept at a particular stage also regulates encounters with new experiences, and whether the person, in terms of the values of his/her existing self-concept, feels comfortable in accommodating such experiences. Self-consciousness or self-awareness develops from an early age and enables the person to recognise and reflect on the self.



**Figure 17.4** For the young child, self-awareness might literally mean physically recognising his/her mirror image.

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However, for the adult, *self-awareness* means reflection on self-conscious emotions, such as pride, shame and embarrassment (Pervin, 1996; Carver, 2003;

Tesser, 2003). Snyder's concept of self-monitoring and Higgins's concept of self-guides also relate to self-awareness, because they describe people's cognitive sensitivity and "self-standards" regarding acceptable behaviour in particular situations. This actually represents forms of self-regulation to ensure self-control. Similar consistency concepts to maintain and promote self-esteem are described as *self-verification* and self-enhancement: an individual's efforts to find agreement between self-perceptions and information from the environment (Leary and Tangney, 2003; Baldwin, 2005).

The self generally has positive aspects, but can also integrate negative attributes and, even, attributes that are not really a part of the self. Some theorists have described the self as not a unitary phenomenon, but as multidimensional, consisting of *self-schemas*, which are the various attributes that people cognitively attach to their self-concepts, for example being pretty, intelligent, talkative and gregarious (Markus and Cross, 1990). In this way self-concepts of people can more easily be differentiated, and one can also understand the idea of the self-concept better by considering all its various manifestations. For example, one would avoid thinking that people have low self-esteem just because they have weak points in certain areas.

People might have a sense that their self-concepts are unified or integrated, but self-concepts are also flexible, for example as people's environments and experiences (phenomenological field) change. Individuals might have, for example, as many "social selves" as other people they encounter attribute to them. In this regard people might have a family of selves, and each self might be more or less effective in certain situations, such as a child, adolescent, student, worker, parent, spouse, sportsman and club member (Pervin, 1996).

In a more specific sense the self-concept may denote *self-identity*, that is who one is, being a person and belonging somewhere. According to Erikson, most people develop towards self-identity through various stages in which particular identity crises are overcome. In other individuals, particular identity-development tasks develop insufficiently, resulting in problems during later stages of life.

Another part of self-concept is one's self-assessment or *self-esteem*, that is whether one regards or values oneself as being good or bad or able to do things well, which may influence various aspects of self-perceptions (Flett, 2007). Self-esteem and related concepts, such as self-efficacy, are essential concepts in work behaviour. A significant body of research regards self-esteem as a significant contributor to work involvement, work motivation, and the quantity and quality

of work performance, and as having the ability to moderate the effects of events in the workplace and work performance (Maddux and Gosselin, 2003; Tesser, 2003). According to Brockner (in Furnham, 1995), people's level of self-esteem influences how they act, feel and think about themselves and the job. Employees with high self-esteem manifest the work-related behaviours shown in the box below.

### **Do you feel OK in your job?**

High self-esteem employees:

- try to improve on work performance (work harder) when negative feedback is received (employees with low self-esteem are more sensitive to negative feedback)
- are more able to work and decide independently, for example they are not likely to imitate a supervisor's managerial style (employees with low self-esteem are less certain about the value of their own behaviours)
- are less negatively affected by chronic stressors, such as role ambiguity, or acute stressors, such as work loss
- are more ambitious, which might be reflected in job-seeking behaviours and in career decisions and job choices
- are less likely to conform to group norms or to need group support (workers with low self-esteem, in contrast, are likely to expect a lot from colleagues in terms of acceptance and approval).

In general, research findings indicate that employees with low self-esteem are more adversely affected by many work and organisational issues, such as intergroup relations, performance feedback, managerial practices and other organisational stimuli.

*Self-efficacy* denotes the “conviction that one can successfully execute the behaviour to produce the (expected) outcomes” (Bandura, 1977a:193). In a body of research, self-efficacy is associated specifically with performance and occupational behaviours (Lent and Hackett, 1987; Maddux and Gosselin, 2003).

People's quest to value themselves might mostly have positive consequences. However, overvaluing might be detrimental. For instance, people who pretend or whose aspirations are too high might overreach themselves, fail and experience

reduced self-esteem.

A good example of distorted self-perceptions might be in narcissistic personality disorders, whose self-valuing is directed at self-love (see the box below).

**ETHICAL READER: The consequences of overemphasis on physical attractiveness or bodily self-esteem**

Overemphasis on physical attractiveness or bodily self-esteem, especially in Western society and amongst women, reaps benefits for the media and health and beauty industries, but also creates much physical and psychological pain. This emphasis on attractiveness creates a belief that “what is beautiful is also good”, and often causes inaccurate perceptions of people, such as in assessments of job applicants or valuations of friends and partners (Buunk, 2001; Weiten, 2008).

In women, especially, low bodily self-esteem might lead to interpersonal and appearance anxiety (Franzoi, 1996), whilst the failure to fulfil expectations and the resultant low self-esteem might even cause serious stress-related diseases such as anorexia and bulimia (Nevid, Rathus and Greene, 2005, 2008). In males a more recent phenomenon is negative bodily perceptions that may lead to abuse of steroids and physical over-extension (for example, in athletes and body builders) which may lead to serious health problems.

People’s self-concepts, in other words what their personality or aspects of personality are, grow and develop from their collective or accumulated life experiences, attitudes and thoughts. In this way people use their self-concepts to give meaning to their lives and experiences. People have one personality but many self-concepts. Various forms of the self-concept idea are used by different writers to denote the self as an integrative force in personality, or to indicate specific aspects of personality, as shown in Table 17.1.

**Table 17.1** Different meanings of the self-concept

Proprium (Allport)	A sense of self, all aspects denoting personality unity
Ideal self (Rogers)	What the individual would like to be
Real self (Rogers)	A person's true behaviour or what that person can become
Spiritual self (James)	

Desires and feelings

Material self (James)

Family and body perceptions	
Social self (Mead, James)	What a person thinks that other people think he/she is
Looking-glass self (Cooley)	How a person thinks others perceive him/her
"I" and "me" experiences (Mead)	Perceptions of oneself through the eyes of others
Bodily self (Allport)	The part of self that denotes perceptions of one's body image and physical abilities

In most cases self-concepts have one or both of the following connotations:

- self as the integrative force in personality (a person's attitudes, feelings and perception of him-/herself)
- self as director and motivator of behaviour.

Table 17.1 shows that a person's ideas and perceptions about him-/herself derive from many sources:

- true knowledge of the self
- the person's understanding of what others may think
- his/her wishes to be a certain way
- various aspects of him-/herself, other people and the environment.

Self-esteem can have positive and negative self-evaluations, for example self-schemas or self-constructs of "good" me and "bad" me, depending on self-experiences in and information or feedback from the environment.

An interesting humanistic view on the uniqueness of personality is Kelly's idea of constructs to describe personality structure (Pervin and John, 1999). The fact that Kelly explains people's representations of reality as *personal constructs* places him in the ranks of the humanists or existential psychologists, although he is viewed as more of a cognitive psychologist. The idea of personal constructs is also explained in Baldwin (2005) in descriptions of cognitive *self-representations* that people use to define social and interpersonal relationships (Judge and Hurst, 2007).

According to Kelly, the constructs people have about various things in life, such as their self-concept, relationships, religion and work, represent the meaning they attach to their interpretation of information regarding these aspects. In line with Kelly's idea that the meaning of things can always change (constructive alternativism), people can continuously change their constructs or representations of things and experiences as other changes necessitate.

### **ETHICAL READER: New constructs owing to transformation in South Africa**

In South Africa transformation has forced many people to have new thoughts about existing constructs or meaning systems. However, for many people it might always be difficult to alter particular meanings, especially those associated with race and characteristics of people belonging to different ethnic groupings. The phenomenon of racism in its many manifestations, and also constructions related to gender and sexual orientations, is possibly a worldwide construct, which is difficult to change.

## **17.5 THE DEVELOPMENT AND MAINTENANCE OF SELF**

According to humanistic and existential-phenomenological theories, personality development, and therefore self-development, is a continuous process throughout life. The ongoing process of self-concept formation and development centres on the physical, intellectual and psychosocial spheres of human behaviour. If development is “healthy”, self-concept development at all stages seems to occur in an integrated way and the individual is able to be congruent with respect to how different aspects of self-expression coincide. Influencing factors on development are mostly coupled to a person’s own progressive experiences and perceptions, and also occur in relation to other people. Kelly’s ideas of the formation of construct systems (meaning systems) as a result of repeated patterns of events is quite similar to the humanistic assumptions.

Allport, also a humanist, sees self-concept development as the integration of every person’s unique attitudes, perceptions and other experiences. Self-development is also a progressive process in which people at different stages of life might be more aware of specific aspects of who and what they are, from a sense of a bodily self at infancy to self-maturity, where self-actualisation and self-consciousness are as optimal or fully developed as is humanly possible.

In his theory of development, Rogers postulates the inherent capacity for growth towards self-actualisation. The growth process centres on the self, and comprises differentiation, expansion, autonomy and socialisation. In other words, self-actualisation develops into a fully-fledged self-structure. Initially,

organismic survival values (basic needs) play a major part, but in time the structure of the self is determined by interaction with significant others, and then the evaluation of these significant others exerts great influence on the self-concept. This progressive development takes place as people's phenomenological fields or environments expand. People, especially children, have an innate ability to value or judge whether or not every new experience belongs to their existing self-perceptions and whether or not it helps them towards self-actualisation.

According to Rogers, the self develops from the interaction between the organism (individual) and experiences in the environment. The self can "introject" or internalise the values of other people. For example, the individual could change his/her conduct in the light of what is observed in others (which might cause conflict within him-/herself, or with others, and may distort his/her behaviour and relationships). The self strives for stability, that is the person seeks to maintain a state of congruence with the self, and experiences that bear no relation to the self are seen as threatening or incongruent. The self can also change and adapt in the processes of maturation and learning. People tend to look for positive events and will avoid negative influences.

Rogers maintained that optimal self-development requires an atmosphere of positive valuing, acceptance, love and respect from others. In this regard he refers to the need for *positive regard* (love, respect, acceptance, trust and values that build self-worth). According to Rogers, individuals can only develop into fully functioning people if they experience unconditional positive regard, that is being regarded and accepted unconditionally in relationships, so that they feel worthy and are able to develop a complete self-image.

Many people, however, only experience conditional positive regard, because they are accepted only under certain conditions, for example if they obtain a degree, if they work long hours or if they achieve in sport. In many relationships, such as those between parents and children, husbands and wives, and close friends, interactions might be based on conditional acceptance.

According to Rogers, such patterns of acceptance might cause incongruence or conflict in terms of what the person really wants, and may block self-actualisation. Although such behaviours might also be part of the self-concept, they might cause some people not to trust others completely and to commit only to relationships under particular conditions, an aspect which resembles secure and insecure attachment styles in relationships as a result of childhood bonding experiences (see [Chapter 4](#)).

Many of Rogers's ideas of interpersonal regard and valuing find application in training, counselling, interviewing, therapy and group work in which the emphasis is on person-centredness. In these approaches, for example, between counsellor and client, the emphasis is on the positive and healing characteristics of the relationship, or empathy, with all its related attributes of warmth, acceptance and honesty or congruence (Rogers, 1951; Truax and Carkhuff, 1967).

## 17.6 MOTIVATIONAL FORCES IN BECOMING A PERSON

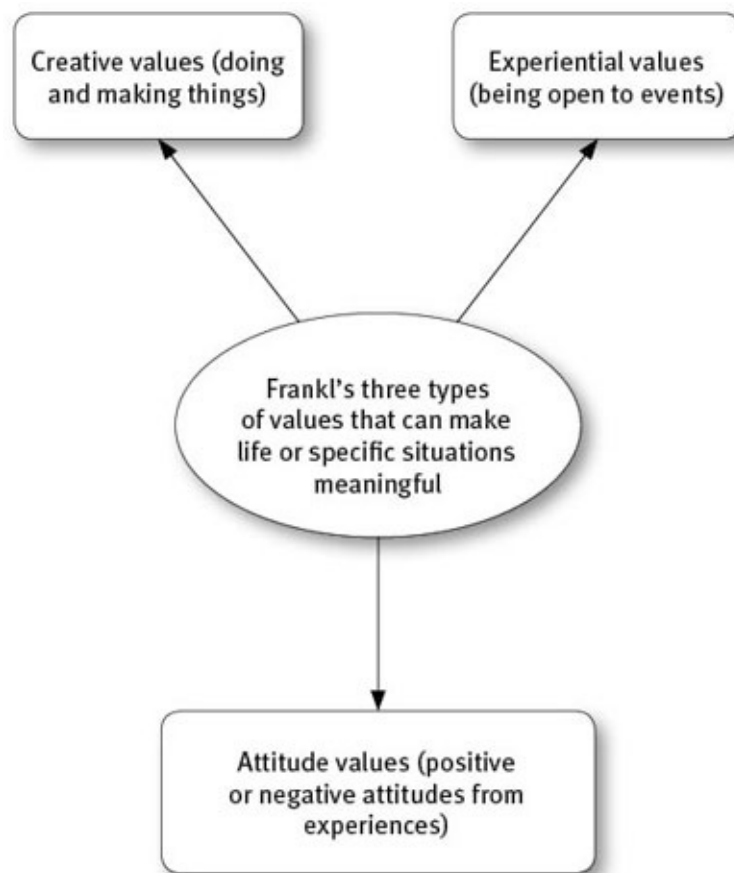
Humanists' main focus in personality is on motivation and growth towards finding meaning in life, achieving self-actualisation, optimal functioning and well-being (Snyder and Lopez, 2002; Cervone and Pervin, 2008).

### 17.6.1 Finding meaning in life

Frankl believed people, as spiritual beings, have a free will, and therefore are responsible for the choices they make in daily events and for the meaning they eventually find in life. Because people's ultimate goal in life is to grow towards and find meaning in life, people have an intrinsic *will to meaning* (Frankl, 1969). People will always ask questions about what they are and what they can become, or want reasons for positive and negative events in life. According to Frankl, the will to meaning is the strongest motivational force in people. Even people who have succeeded in many things might still experience discontent and unfulfilment if they feel that their lives have no meaning. Frankl's concept of *self-transcendence* (which is similar to Maslow's concept of self-actualisation and Allport's concepts of propiarte striving and functional autonomy) indicates people's ability to rise above themselves and circumstances in order to grow or find meaning in life (Allen, 1994).

Frankl believed that people must be fully committed in everything they do, because that represents finding meaning in things. Work is one of the main tasks in life to which people can fully commit and in which they can find meaning. This commitment to work should be more in the interests of others than for one's own career goals (Möller, 1995). Other spheres of life in which people have to learn to transcend in order to find meaning are suffering, love and death. Transcendence in all life's endeavours should not be for the sake only of specific activities, but also because of the meaningful values and attitudes that people

derive from these experiences. Frankl described three types of values that can make life or specific situations meaningful, as Figure 17.5 shows.



**Figure 17.5** Frankl's three types of values that can make life or specific situations meaningful.

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### 17.6.2 Needs and self-actualisation

Maslow is known as the father of humanistic psychology and, together with Goldstein and Angyal, is classified amongst “organismic” or holistic theoreticians, chiefly because of his insistence that personality is an organised entity, a view shared by Rogers and Frankl (Corsini and Marsella, 1983).

Maslow asserted that human behaviour is directed by a number of physiological and psychological needs. He represented these needs in a hierarchy of five levels, as discussed in Chapter 8. Maslow differentiated between two types of needs:

- deficiency or primary needs (These are physiological needs, safety needs, and

love and belonging needs.)

- growth or secondary needs (These entail the needs for self-esteem and self-actualisation.).

All these needs function according to a hierarchy and the principle of drive-reduction. The social needs (needs for affection and acceptance) are satisfied in interaction with other people, in much the same way as the need for positive regard is, as stated by Rogers.

Self-esteem and self-actualisation are higher-level needs and are responsible for the individual's constant striving behaviour, which increases stress. Self-esteem entails the needs for mastery and power, and the need to be appreciated (evaluated) by others for the quality of one's behaviour, but not only because one is a person (because that involves acceptance only). The *actualising tendency* in people was considered by Rogers as a directional and constructive motive that energises all striving behaviours, and is biologically energised. It can be repressed but not destroyed (except by destroying the person). The self-actualising tendency is an acquired psychological need also because one may strive to become what one's potential allows one to become, which explains people's continuous need to grow, achieve more and explore further (Maddi, 1996). Like Rogers, Maslow recognised the power of basic needs if they are not satisfied. Although needs for food, water and safety do not motivate people to work harder, they lead to serious dissatisfaction with work if unsatisfied. Even the most highly developed person is very "dependent" on basic needs being satisfied. If such basic needs are not satisfied, these needs will hamper self-esteem and self-actualisation needs. Needs are manifested differently in different people and situations.

Maslow and Rogers's most important idea on motivation is that people strive for growth towards *self-actualisation*. Maslow and Rogers established sets of criteria and behaviours that characterise self-actualising personalities (Carver and Scheier, 1996; Schultz and Schultz, 1996; Weiten, 2008). Maslow studied various famous people and other groups and eventually described particular characteristics and behaviours of self-actualisers (Maslow, 1967; Ewen, 1998a), although his criteria for self-actualisation are often criticised (Allen, 1994).

According to Maslow, self-actualisers have certain "meta", "growth" or "being" self-actualisation needs, which, if not satisfied, might result in negative feelings and maladjustment. For example, if the growth need for truth is not satisfied, it might result in mistrust and scepticism, frustrated needs for wholeness might lead to disintegration, and the need for meaningfulness, if

frustrated, might cause despair and hopelessness.

According to Rogers, self-actualisation derives its energy from biological and physiological sources, because self-actualising also includes enhancement of the body and physical powers. In this sense Rogers's concept of actualisation indicates the maturation of all aspects of people's potential (inherited and psychological attributes) if conditions are favourable. However, in contrast to Maslow, Rogers did not really describe lower-order needs, such as physiological needs for food and safety.

Self-actualisation that overrides all other motivational forces might include actualisation of other needs, but primarily denotes fulfilling the self as the integrating part of personality. In this sense "self-actualisation" refers to the whole fully functioning person or complete human fulfilment, and not to specific endeavours, such as achieving well academically.



**Figure 17.6** Different forms of self-actualisation.

Psychologically, self-actualisation manifests in developing and maintaining the self towards greater self-dependence, autonomy, efficiency, creativity and positive psychological health, and in the individual's feeling congruent and comfortable in his/her environment (fitting in, not being alienated or ill at ease). The tendency to self-actualisation also serves to generate tension, for humans aspire not merely to homeostasis, but also to ongoing progress and change. Self-actualisation provides a criterion for measuring expectancies and experiences. Those which are incongruent or do not fit in with self and self-maintenance are avoided. In this sense the individual's internal valuing capacity, a protecting

mechanism, serves to know when experiences are good or bad. Rogers sees a “good life” not as homeostatic, but as purposefully directed and always striving. It is clear, however, that in some people, the need for acceptance or positive regard might be stronger than the need for self-actualisation, and might even impede self-actualisation.

In this regard, some managers, in order to be popular, may emphasise either people or tasks in their work execution, which may impede self-actualisation. The strength of emphasis on either of the two, or in combination, has a bearing on how people work or how they are assessed to be working.

Concepts such as optimality, maturity and a fully functioning person reflect the idea of facilitating human potential, which is a core objective of the humanistic movement in many of its applications. In contemporary, ever-changing work environments one tends to think that emotional maturity or integration must be a stronger competency for survival than having all the technical skills (Howard, 1995).

Self-actualisation is not necessarily coupled to achievements such as creating works of art. It is not “what” is being done, but rather the process of working or “how” things are done. This fulfilling engagement in meaningful and enjoyable work processes or task execution is referred to as *flow experiences*, a more recent concept in describing motivation (Csikszentmihalyi, 1993:xvi). In this respect “self-actualisation” refers to a continuous, intense involvement in living a meaningful life and using one’s potential to realise goals, though not everything people do represents self-actualisation.

For some people self-actualisation is directed more towards how they themselves use their capacities to live and achieve their own goals in the world. Other people, in contrast, are more motivated to actualise things outside themselves. These transcendent self-actualisers are involved in sacred or universal goals to make the world a better place. The late Mother Teresa of Calcutta is an example of a self-actualiser, or someone who spends a lifetime in serving other people. It is possible that in dreams or ideals, each person nurses these higher needs for self-actualisation. It is, however, also possible that the daily efforts to make a living and to survive (meet primary needs) distract people from the ultimate need to achieve something that is important for reasons other than themselves. In these circumstances one wonders whether, and when, growth needs become deficiency needs for some people.

Self-actualisation can be coupled to so-called “peak experiences”, according to Maslow. *Peak experiences* (which may have elements of flow experiences)

might occur when people are related in a special way to events in themselves or in their environment, for example the sudden realisation as to why a problem cannot be solved, the passive experience of admiring great beauty, or the ecstasy and happiness of receiving recognition for an important achievement. Tasks or activities that might produce flow experiences have the following characteristics:

- clear goals with manageable rules
- the possibility of adjusting opportunities to suit one's abilities
- provision of feedback or information about performance
- the opportunity to be really engaged and concentrate (not be distracted).

These criteria are not different to a job or task description that enables an employee to be motivated and work creatively, and a supervisor to carry out efficient performance management.

In contrast to Rogers and Maslow, and differing from many other authors, Kelly did not find it necessary to use motivational concepts such as traits, needs, motives or drives. He asserted that people are motivated because they are alive, which is akin to the existentialists' idea of the spiritual drive because of "being". According to Kelly, in the work context there should be no need to "pull" or "push" an employee to perform. An individual's will to do things will be determined by how he/she thinks about, anticipates and predicts events through his/her various constructs, and by what constructs are best suited for the event or situation, which Kelly describes and explains through a number of corollaries (Kelly, 1955). This view resembles Frankl's idea of life values giving meaning to events.

Maslow wrote exhaustively on the role of work in personality functioning. There is a connection between job dissatisfaction and inadequate, or no self-actualisation. He stressed the role of management in considering the needs of workers at all levels and in creating channels for need satisfaction. His motivational theory had a significant effect on later well known industrial psychologists, such as Argyris, Likert, McGregor and Porter, although his theory of a need hierarchy no longer enjoys the same esteem as it once did. His most influential idea might still be that if lesser primary needs are unsatisfied, this will inhibit striving for higher-order needs such as self-actualisation. Even if basic needs are satisfactorily met in the workplace, this does not necessarily ensure work satisfaction or improved performance. The absence of quality working conditions to satisfy basic needs will, however, definitely cause worker dissatisfaction. Intrinsic motivation, that is if employees experience meaningfulness in their jobs and perform tasks because they really want to, will

always be a better motivator for work performance. In this respect the Job-Characteristics Model of Hackman and Oldham (1976) integrates the ideas of Maslow and others in stating that, if jobs or tasks have certain core dimensions, employees will have certain psychological experiences of work that will result in certain personal and work outcomes. This model, illustrated in Figure 17.7, was an influential force in much research on how to design and redesign work in organisations. If, for instance, job tasks demand a variety of skills, the employee completes an identifiable task, and the work has a significant contribution, the employee may experience the job or tasks as meaningful and may feel responsibility. This may lead to high internal states of motivation, work and personal satisfaction.



**Figure 17.7** Experiencing work meaningfully.  
Source: Adapted from Moorehead and Griffin (1989). MOOREHEAD/GRIFFIN. *Managing Organizational Behaviour, International Edition*, 9th edition. © 2010 South Western, a part of Cengage Learning, Inc. Reproduced by permission. [www.cengage.com/permissions](http://www.cengage.com/permissions).

### 17.6.3 Free will as perceived self-control

It seems that the humanistic emphasis on freedom of choice and the internal motive to self-actualise also relate to the learning and cognitive ideas of perceived self-control, internal locus of control, self-determination, self-regulation and self-efficacy. According to the humanistic approaches the self as a person is not powerless under the determination of outside events (as proposed

by behaviourism) or under the influence of past events or irrational internal and external forces (as proposed by psychoanalysis). Various topics related to the self-concept indicate this human ability to self-regulate behaviour and to be personally in control of behaviour in relation to events. In humanistic psychology this does not indicate actual physical control, but rather the person's perceptions, values and attitudes of being in control and having choices. This would be the case when an employee completes a task successfully because he/she is really committed, and is interested or wants to do it, as opposed to being pulled and pushed by the promise of an increase if performance is up to standard. Externally controlled behaviours might inhibit self-actualising behaviours, because they deflate the person's self-esteem. However, if appropriately managed, such a reward could inflate a person's self-worth and might facilitate performance (for example, if the employee experiences the reward as a recognition of self-worth and not only as a reward for doing a task).

The concepts of learned helplessness (Seligman, 1975), self-handicapping behaviours (Berglas and Jones, 1978; Lay, Knish and Zanatta, 1992; Wood, Giordano-Beech, Taylor, Michela and Gaus, 1994), and fears of success and failure (Lowman, 1993) can be viewed as the opposite mindset when compared with freedom of choice and will to meaning. People in this frame of mind, through their choices and experiences, believe that they have no control over one or more aspects of their lives and that nothing they do has meaning, or they are afraid to take responsibility. Their negative behaviours indicate meaninglessness and a fear of taking responsibility or control.

## **17.7 OPTIMALITY AND DEFICIENCIES IN BEING**

Humanists, like phenomenologists and existentialists, are most concerned with the healthy personality, in that they attach importance to personality evolving into its full potential, the real self and becoming a fully functioning person. In this approach they are concerned with more than adjustment only, but also with optimality, which is the end result of a movement or process towards self-actualisation. Frankl's concepts of the will to meaning and self-transcendence imply growing into more than the ordinary, and searching for something more than has already been achieved.

Both Maslow and Rogers describe attributes of psychologically healthy people (self-actualisers or fully functioning people). According to Rogers, fully functioning individuals are those who use, recognise and develop all their

abilities and talents to further self-knowledge. In more specific terms, Rogers attributes the following characteristics to such people (Schultz and Schultz, 1994; Flett, 2007; Ewen, 1998a):

- awareness of all experiences
- existential or full and quality living (richness of experience)
- organismic confidence (confidence in own decision-making powers)
- freedom of experience (selectivity and creativity)
- creativity and adaptability in the face of changes
- having courage to face the problems of life.

Optimality relates to ongoing growth and the realisation of potential, and might include aspects such as work and how other tasks and problems in life are handled. In a sense, optimality can be viewed as self-actualisation. Figure 17.8 illustrates that optimality is more than the minimum standards for functioning or living.



**Figure 17.8** Maladjustment, adjustment and optimality.

In terms of health this approach does not only consider illness versus health, but rather behaviours on a continuum of unwellness, health and optimality. This approach is about an orientation to stay healthy. Optimality (or self-actualisation), then, is a natural, ongoing and creative process in which the individual takes responsibility to develop (optimalise) his/her physical, psychological and mental capacities, which will be shown in behaviours and attitudes, such as in work, relationships and religious associations (Cilliers, 1984; Langer, 2003).

Humanists and existential phenomenologists do not suggest an “utopia” where people have no problems in life, but believe in the intrinsic goodness and potential of people. They believe that these qualities can be realised through the positive influences of other people and the environment. These approaches are concerned with the following general facilitating influences for optimal growth:

- unconditional acceptance from others as having self-worth and potential as a person
- self-regard, which develops in the person through experiences about him-/herself in relation with other important people
- self-esteem, which develops as the person gets feedback from others and from the manner in which he/she is accepted and grows towards, and experiences, self-actualisation
- positive societal and environmental opportunities, and freedom to develop potential and to self-actualise.

If these conditions are present most of the time, people have freedom and choices and are able to be in control of many influences in themselves and in relation to others and outside events.

The humanistic approach views social influences and people's own self-defeating behaviours (defences, avoidance, and so on) as serious inhibiting factors in people's quest to develop the real self and to live a full life. Much research relates high self-esteem to having positive feelings and good mental health, whilst the opposite is generally reported for low self-esteem or negative self-evaluations (Greenberg et al., 1992; Sedikides, 1993). However, the pains and problems of life are viewed by some of these authors, Frankl for one, as challenges to overcome, and opportunities to find meaning in negative circumstances.

In general, psychological health is seen as dependent on the congruency of self-perceptions and experience in the environment. Incongruency in a person, in perceptions of him-/herself, or in relationships with others and the environment, will cause problems for that person. Rogers, for instance, defines anxiety as resulting from low self-esteem, because the individual experiences events as threatening. In such cases people might use defence mechanisms, such as avoidance and rationalisation, to reconstrue reality for themselves. For example, a supervisor who gets feedback that staff do not like him/her because he/she treats them unfairly, might reconstrue the situation by asserting that all the employees are incompetent and blame him/her for everything. In the same vein, an incompetent employee might view the supervisor as assessing his/her behaviours unfairly. Rogers terms the defence mechanisms by which an individual copes with threatening situations "perceptual distortion" (incorrect perceiving and interpretation of events) and "denial".

Such individuals have no frame of reference to give meaning to existing or new events. They experience fear, anxiety and a sense of threat because they do

not know how to handle experiences in life, nor how to predict events. According to Kelly, to maintain good mental health a person must be able to preserve unity or integration and balance in personal constructs (that is consistency in the interpretation of events in life). If a personal system of constructs is too rigid (impermeable) or too loose (permeable), the individual will lose contact with reality. The individual will be too compulsive (try to use one or a few constructs for every circumstance or event) or experience much confusion as to what reality is, as in schizophrenia.

The humanistic movement has been a big contributor to the idea of the power of positiveness and positive thinking in human nature and human well-being. In contrast, some of the most influential models of the classification and explanation of psychological problems are “pathogenic” (that is, they explain emotional problems in humans according to a medical model as illness symptoms resulting from particular causes inside and outside the person). The tendency in humanistic and positive psychology’s thinking is not to ignore psychological problems but to pay attention to humans’ intrinsic health potential, the powers of positive thinking and self-control, and the resilience of humans in coping with stress and the problems of life, even in harsh circumstances. In the literature, many concepts, including some from authors not traditionally associated with humanistic approaches, are used to place the emphasis on psychological health, rather than psychological problems. Examples of these concepts are shown in Table 17.2.

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**Table 17.2** Concepts emphasising the positive and healthy nature of personality

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Jung

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Individualising

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Growth of psyche into adulthood

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Adler

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Striving for superiority

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Ultimate goal of reaching perfection

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Fromm

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Productivity

---

Ultimate goal to realise potential

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Horney	Self-realising	A realistic ideal of self-image and potential
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Erikson

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Emotional integration	At older age the achievement of wisdom about life
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Allport

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Adulthood	Mature, autonomous behaviour	
Rogers, Jung, Perls, Maslow	Self-actualisation	Intrinsic tendency to grow and achieve full potential



Sense of coherence	Feeling of events being comprehensible, manageable and meaningful
--------------------	-------------------------------------------------------------------



Personal hardiness	Behaviour marked by high levels of control, challenge and commitment
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Learned resourcefulness	Behaviours and skills to control events and behaviour
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Ben-Sira

Potency	Confidence in own abilities and environment to cope with stress
---------	-----------------------------------------------------------------

Bandura	Self-efficacy	The belief that one can realise expectancies
Thomas, Colerick		

Stamina	Physical or moral strength to be resilient to disease and stress	
White, Deci	Competency, motivation	Intrinsic motivation, competency and self-determination
Petersen and Seligman (1978)		

Optimism

---

Positive view on events		
Harris (1978)	Winners' behaviour	Behaviours and efforts to achieve set expectations and objectives

The so-called “salutogenetic paradigm” and related concepts, as postulated by Antonovsky (Strümpfer, 1990, 1995), indicating humans’ ability to be healthy and resilient even under stressful conditions, and to strive for optimality, might be an integrating concept for most concepts denoting resilience and sources of healthiness.

Important commonalities in these concepts are personal control (a person’s feelings that he/she can manage and master events) and experiencing the meaningfulness of events. Strümpfer (1995) coined the term fortigenesis for an even stronger form of salutogenesis, and he indicated that fortigenesis may have its origins in work behaviours, because employees repeatedly have to demonstrate behaviours such as self-dependence, control and responsibility, which are salutogenetic types of behaviours. An employee with a high level of resilient behaviours might manifest an effective and positive work orientation, which also indicates elements of self-actualisation or optimality.

These optimal or self-actualising behaviours are in contrast to concepts such as alienation. Alienation denotes employee’s work experiences that are meaningless, powerless (without influence or autonomy), normless (unethical ways of achieving goals), isolated from other employees and self-estranged (working for external rewards only), and that involve learned helplessness. In all of these the important factor is the person’s dependence on external events and the feelings of not being in control (Cook, Hepworth, Wall and Warr, 1981; Kanungo, 1982).

In general, interventions, such as therapy, are aimed at giving people with problems “new” experiences or constructs with which to give meaning to events and life. Frankl’s logotherapy is meant to make it easier for people to confront meaningless aspects of being and to discover meaning in their lives. Kelly expects people in therapy to reconstruct existing inefficient constructs into constructs that will have personal meaning. Rogers’s client-centred therapy is intended to create a climate of security in which the individual’s behaviour can change from incongruency to congruency. A therapeutic climate is created by the therapist, who accepts the client unconditionally, shows empathy and warmth

towards him/her, and acts congruently and honestly. In such a climate the client can explore and self-actualise, and acquire new ways of relating to him-/herself, others and the world.

## **17.8 SUMMARY AND CONCLUSION**

The humanistic perspective is a combination of assumptions from humanistic or self-theories, phenomenological theories and existential theories. The main ideas about human nature are that all people are unique, intrinsically good and wish to realise their potential, which they try to achieve by their actualising tendency. This approach sees people as achieving their intrinsic potential and obtaining self-actualisation through progressive self-development and their efforts to live a meaningful life. Living and being is best if people are allowed to be and feel free and to execute choices in life, yet people do have responsibilities and choices in how they live. In these processes, unique and subjective experiences are important, because reality for each person is in the here-and-now experience of life.

A person's self consists of the knowledge, feelings and perceptions about him-/herself, and in this regard relationships with and positive regard from other people are crucial. The structure and development of the self (the integrating force in personality) is influenced by each person's experiences in his/her phenomenological or experiential environment. Motivation to do things and achieve in life is based on intrinsic motivating forces, such as the desires to self-actualise, find meaning in life, and exercise self-control and freedom of choice. Healthy personality functioning will be determined by experiencing congruency between self-perceptions and environmental experiences, by achieving intrinsic potential, by living a meaningful life, and by reaching self-actualisation in life.

The humanistic approach puts "being human" in perspective in its emphasis on people's unique experiences, freedom of choice and internal motivation to develop towards realising their potential. But many of the humanistic ideas and concepts are viewed as idealistic and vague, which makes scientific verification difficult. Criticism of humanistic theories and concepts includes the oversimplification of humans' existence in this world, and the lack of recognition that for many people the actualisation of their innate goodness will always be suppressed as they are in the wrong place at the wrong time.

However, this approach has stimulated much research, whilst also contributing in practice, for example in the fields of assessment, therapy,

training, work motivation, career development and well-being. In the work context, for instance, self-esteem and self-efficacy are very much a part of people's perceptions and assessments of occupational behaviours. Rogers's Q-Sort technique and Kelly's Repertory Grid Test are valuable contributions in self-concept assessment (Gregory, 2004). "Self-actualisation" has become a buzzword when people explain employees' intrinsic motivation to achieve their potential and to reach life goals. In many training applications much is made of experiential learning (people learning more about themselves and others when they perceive and interpret real-life experiences). Phenomenological research is about determining people's own here-and-now subjective realities and experiences, and it incorporates the idiographic and case study methods of research.

Rogers's belief in the importance of interpersonal relationships in interaction, for example in therapy and groups, is probably his greatest contribution. He tried to apply his theory, especially its emphasis on favourable conditions in interpersonal relations (acceptance, congruence and empathy), to groups and communities to solve conflict. His visits all over the world, including to South Africa in 1979 and 1986, were evidence of his efforts.

Researchers' interest in and application of the concepts of self-actualisation and, currently, wellness concepts emphasised by positive psychology in various areas, must be some of the humanists' greatest contributions. Self-actualisation as a concept enjoys research support, but measurement of positive psychological concepts still needs a lot of refinement (Allen, 1994; Snyder and Lopez, 2003; Strümpfer, 2005). Das (1989), for example, criticised the concept of self-actualisation as being too vague and promoting self-absorption or selfishness. He proposed that the concept of *self-realisation* should be used instead, because it is not dependent on lower-need satisfaction and is a more active process. Notwithstanding criticism, Maslow's hierarchy of needs is fundamental to many measures and interventions with regard to work motivation and work design.

The essence of humanistic theory is the recognition and cultivation of the natural, positive potentials of humankind and the encouragement of people to find commitment and meaning in whatever they do, rather than the focusing on people's dependency on influences outside their control. The emphasis on wellness, rather than pathology, is also a positive aspect in people's striving for optimal physical and psychological health and functioning.

The resilience of people is a coping resource not only for employees, but also for human-resources workers, especially in a labour-saving and results-inclined

world in which the “human factor” is often ignored in business practices. As with psychoanalysis and the understanding of unconscious behaviours, the humanistic ideas might be relevant in explaining what “being human” should really mean. A challenge for the future might be to validate the applicability of humanistic assumptions on various cultural groups in more cross-cultural research. In South Africa, the spirit of *ubuntu* or “humaneness” is reflected in humanistic assumptions.

## 17.9 ASSESSMENT ACTIVITIES

### Multiple-choice questions

1. In explaining the basic nature of people, the humanistic perspective emphasises \_\_\_\_\_, whilst the existential theorists emphasise \_\_\_\_\_.
  - a) environmental influences, concern from other people
  - b) cognitive experiences, secondary needs
  - c) Gestalt principles, self-esteem
  - d) self-actualisation, meaningful living
  - e) meaningful living, peak experiences.
2. According to Rogers, self-development and maintenance are:
  - a) according to distinguishable stages
  - b) strongly influenced by cognitive and genetic factors
  - c) upheld by an ongoing valuing process of new experiences
  - d) verified by peak experiences
  - e) dependent on satisfying self-esteem needs.
3. Self-actualisation refers to:
  - a) getting very excited during achievements
  - b) obtaining a degree or winning a race
  - c) being promoted to a senior managerial position
  - d) having very positive self-esteem
  - e) achieving life goals and self-fulfilment.
4. According to the humanistic and existential assumptions, an employee will not experience meaningfulness in his/her job if:
  - a) the employee only does routine tasks
  - b) the employee has responsibility in the job
  - c) the employee often has performance feedback sessions
  - d) the employee knows why he/she is doing the job

- e) the employee experiences too much job satisfaction.
5. You notice an employee in your work group who is always fully engaged in her work and always seems to enjoy working on tasks. This type of work performance may rather be related to:
- a) esteem needs
  - b) flow experience
  - c) optimism
  - d) a peak experience
  - e) a process of valuing self-experiences.

### **Answers to multiple-choice questions**

1 = d; 2 = c; 3 = e; 4 = a; 5 = b

## **Issues for discussion and practice**

1. Critically discuss the main assumptions of the humanistic perspectives.
2. Discuss the self as an integrating concept to explain personality.
3. Using Figure 17.7, explain how you would change your current working conditions to facilitate employees' perception of meaningful work.
4. Explain the applicability and viability of the concept of self-actualisation in the South African context.
5. Argue the statement that humanistic ideas have no value in a diverse and polarised society such as South Africa.

## CASE STUDY

Debra told the following story to her counsellor:

"I suppose I have always looked and sounded older and wiser than my age and some of my peers. Perhaps that's why I always feel young people and people my age treat me as an "aunt" or someone they can't relate to or relax with – as if it is my fault that I am an only child, born from parents when they were nearly 40 years of age. As a young girl I used to go with my mother to her friends, most of them older than her. I must say I often preferred talking to them and my father, who I admired as a very wise person, instead of the foolish and light talk of my classmates. However, I often felt isolated, and still do. Men would date me or dance with me once and then avoid me. Afterwards I would find out that they thought I was older than them. It just seems so odd. I always wanted to be so happy, have such close relationships, but it always eludes me. At high school people often thought I was a university student or working already and would not believe me when I told them I was only 15 at the time.

"Now in my work, at home and church I have the same experience, colleagues and other people my age tend to think that I am so mature in my work, older than my 26 years, and some even ask what my husband is doing and talk to me as if I have children already. I am afraid that I am beginning to accept what others think, that is, I am old for my peers, and will behave as they expect me to do. What's wrong with me? Why do most people treat me as if I am older than my years? Last week, whilst attending a party, I felt older than all the other girls, even when some of them were older than me. I believe the men present perceived them to be younger, prettier and more feminine than me."

- 
1. Explain Debra's experiences of herself, others and the world according to humanistic assumptions and concepts.
  2. Do you think Debra has achieved self-actualisation, and that she is living a free and meaningful life? Explain your answer.
  3. What are the incongruencies that Debra experiences, and what are the consequences of these incongruencies for her?



## **CHAPTER 18**

# **Personality through cognitive constructions**

*Linda Albertyn, Ziel Bergh and Larisa Louw*

18.1

## [Introduction](#)



[A background to the cognitive view of human nature](#)



## Main assumptions

18.4

## Cognitive interpretation of psychological concepts

18.5

## The structure of personality

18.6

## The development of personality

18.7

## Cognition and motivation

18.8

## [The cognitive perspective on psychological health](#)



## Summary and conclusion

18.10

## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- understand the cognitive view of basic human nature
- compare cognitive concepts with behaviourist /learning concepts and psychoanalytic concepts
- describe Kelly's view of personality in terms of the fundamental postulate and 11 corollaries
- explain motivation and personality development in terms of cognitive constructs
- describe possible applications of cognitive theories and concepts
- understand the cognitive perspective on psychological health
- critically evaluate cognitive theories and indicate implications for future research.

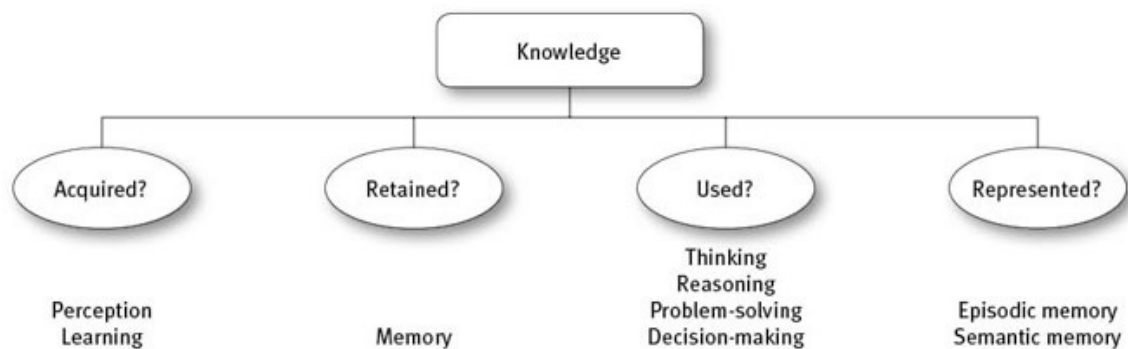
## 18.1 INTRODUCTION

*Cognitive psychology* explores how people in their relationships with the world like to be active, to explore, to manipulate, to control, to create and to accomplish things. It explains, amongst other things, how people can use mind maps to find their way in a new place, why people behave differently or have different ideas on issues, for example on politics and HIV/Aids prevention, and how sometimes it is difficult for people to know how to act in a new situation.

*Cognition* refers to the *processes of knowing* (Cervone and Pervin, 2009). Broadly defined, however, the term covers the full range of mental functions, some of which are covered in other chapters. As represented in Figure 18.1, the cognitive psychologist is concerned with answering the following particular questions:

- How is knowledge acquired? (Two psychological processes are important here: perception, the process by which events are detected and interpreted by the person, and learning, the process by which new ideas and behaviours are acquired.)
- How is knowledge retained? (This leads to the concept of memory.)
- How is knowledge used? (Some of the prominent uses are thinking, reasoning, problem-solving and decision-making.)

- If knowledge is to be retained and used, then in what form is it represented internally?



**Figure 18.1** The processes with which cognitive psychologists are concerned.

Two general categories of representation can be identified: *episodic memory*, which refers to visual or auditory images, and *semantic memory*, which refers to abstract representations of the meanings of things, for example people's knowledge of mathematics or language comprehension (Kutas and Federmeir, 2001). Alzheimer's disease has been shown to impact semantic memory adversely, by impairing the sufferer's ability to name objects and pictures. Sufferers also display poor comprehension of oral and written language (Rogers, Ivanoiu, Patterson and Hodges, 2006).

I-O psychologists are also concerned with gaining a deeper understanding of how individuals organise the world around them, how they attach meaning to events, and how they influence the outcome of events. Knowledge of cognitive processes and information processing is important for the professional psychologist in the work context, because human behaviours and organisational processes are generally very rational by nature, and based on beliefs and perceptions that are often difficult to change. Knowledge of cognition therefore provides another useful paradigm in the assessment and influencing of employees' work performance and organisational dynamics.

The *aim* of this chapter is an overview of personality functioning according to a cognitive view.

## 18.2 A BACKGROUND TO THE COGNITIVE VIEW OF HUMAN NATURE

George Kelly rebelled against the common perception amongst psychologists that they acted as scientists, but that their subjects were motivated by unconscious needs and desires over which they had no control (Hjelle and Ziegler, 1992). His basic view was that not only psychologists, but also the people that they study, act as *scientists*. People, in their attempts to predict and control their external environment, constantly develop and test hypotheses about the meaning of things. In a similar way to how the scientist uses his/her hypotheses to predict future events, people use their constructs to predict future situations. *Personal constructs* are thus people's criteria, hypotheses or "filters" through which people view and predict the world, or their personal theories about the world and people that they use in order to organise their own lives. In other words, each person creates his/her own view of the world and acts according to such knowledge and perceptions.

### **Person as scientist: consequences for the basic nature of humans**

The view of the person as scientist has a number of important implications with regard to the basic nature of humans (Hjelle and Ziegler, 1992; Schultz and Shultz, 1994):

- Firstly, the view of the person as scientist suggests that people are future-oriented, as behaviour is directed by predictions of the future and changes from yesterday as constructs are tested and modified.
- Secondly, people have the capacity to react actively to their environment, rather than merely respond passively to it (unlike in the psychoanalytic and behaviourist views). Kelly believed that life is characterised by continuous efforts to make sense of the world. It is this quality of life that enables a person to shape his/her own destiny.
- Thirdly, a person is not controlled by present events (as Skinner suggested) or past ones (as Freud suggested), but rather controls events depending on the questions raised and the answers found. The only way in which people can be enslaved by the past or present is through their interpretation of events (over which they have control).
- Fourthly, Kelly asserted that people should define a set of

constructs that best enables them to predict events. (He did not postulate any other ultimate goal in life.)

Although some theorists of other schools of thought (for example, Erik Erikson, Adler, contemporary psychoanalysts, classical behaviourists, humanists and Gestalt psychologists) recognised the importance of cognition, none brought cognition into the mainstream of their theory. The more recent behaviourists, the social-learning theorists such as Albert Bandura, Walter Mischel and Julian Rotter (Maltby, 2007; Cervone and Pervin 2008), did recognise cognitive aspects in their views that people are conscious, feeling and thinking and that they process information to maximise their advantages. The difference between these theorists and cognitive theorists lies in the fact that cognitive psychologists attempt to understand and define all aspects of personality in terms of cognitive processes. Therefore the *process of knowing* or cognition is not seen as an element of personality, but is the entire personality.

In the discussion of cognitive theories, Kelly is the first theorist who comes to mind, as he is the only cognitive theorist who developed a comprehensive metatheory of cognition. However, Kelly did not view himself as a cognitive psychologist (Benjafield, 2008), and is also viewed as a constructionist, because his theory of personal constructs, or *constructive alternativism*, is about the self-organising of personality through cognition (Benjafield, 2008). It is nevertheless clear that Kelly's theory has a cognitive ring to it, not only because he explains how people "construe" their worlds but also because of his undisputed influence on the newer cognitive, information-processing theories. Thus Kelly can be considered the key figure in the cognitive perspective, although other cognitive theorists elaborate on particular aspects of this view.

Recent influential cognitive-behavioural and social-cognitive theorists include Albert Ellis, Aaron Beck and Arnold Lazarus. Their theories are not comprehensive cognitive metatheories, but were developed in their endeavours to help clients with presenting their psychological problems. Others, such as Walter Mischel, Albert Bandura, Leon Festinger, Prescott Lecky, Lars-Gunnar Lundh, Paul McReynolds, Neal Miller, Jean Piaget and Noam Chomsky, elaborated on certain elements of cognition or social cognition only. For example, Chomsky's theory of language was developed in response to Skinner's interpretation of the acquisition of language. Piaget described the development of intellect in the child. Beck developed a theory of depression based on the

belief that negative cognitions influenced the *negative affect*. Their more positive approach and some of their social-cognitive concepts, for example self-efficacy, self-regulation and positive core self-evaluations, are used in a more positive approach towards human behaviour and well-being (Snyder and Lopez, 2002; Judge and Hurst, 2007).

### 18.3 MAIN ASSUMPTIONS

Partly owing to fragmentation, or lack of metatheories, and partly because it coincided with the shift in focus to information processing or computer programming, cognitive psychology became a recognised subfield of psychology only in the 1960s. All cognitive theorists, though, subscribe to the following main assumptions (Marx and Cronan-Hillix, 1987; Carver and Scheier, 1996; Illeris, 2009):

- In order to understand human behaviour one needs to understand how information is processed. People are surrounded by visual and auditory stimulation which they use as sources of information. Although the information reaches them in tiny bits, it is not experienced in that way, as they integrate and organise the bits of information so as to make sense of the world around them.
- Life consists of a continuous process of making decisions, most of which are made consciously, although some are made outside awareness. Personality is expressed in part by how the decision-making process functions.
- People are active gatherers of information relevant to making decisions. Information from the environment comes in through the senses and is processed or coded for storage in a systematic, probably hierarchical, arrangement for later use (Cohen, 2000). It is later decoded and combined with other available information so that action can be intelligently guided.
- Human behaviour is intrinsically goal-directed or self-regulated (future-oriented). The analogy of a robot is useful in explaining this premise: a robot has a purpose programmed into it that it fulfils through taking certain steps. In a similar fashion, people create goals and take steps to move towards them. In addition, people monitor their progress in the desired direction. This process is called “self-regulation”.
- Cognitive theorists use concepts to explain how people organise information in their minds in order to make sense of the world. Cognitive structures are “schemas”, which describe how people perceive, organise and interpret

information about themselves, other people, events and objects. For instance, Kelly uses the concept of a “construct” in various ways to explain how people categorise their information or knowledge (Turner, 2011).

In the work environment, cognition is also very important. An individual’s intelligence and personality, motivation, memory, perception and attention, as well as the way he/she learns, thinks and solves problems, are all factors that determine how work is done (Ribeaux and Poppleton, 1978; Baldwin and Dandeneau, 2005; Illeris, 2009). In motivational, attitudinal and learning research, cognitive and learning concepts find new applications (Bargh and Ferguson, 2000; Dasgupta and Greenwald, 2001). An implication of the cognitive approach for training is that if trainers ask trainees to pay attention to some specific aspect of the learning situation, the trainees will learn faster than if they had not received the instruction. Trainees can be instructed using words and symbols (Landy, 1989).

## **18.4 COGNITIVE INTERPRETATION OF PSYCHOLOGICAL CONCEPTS**

The cognitive perspective on the basic nature of personality can be further explained through comparison with some of the concepts used by other main schools of thought.

### **18.4.1 Cognition and the behaviourist /learning perspective**

The cognitive movement rejects the classical behaviourist view that people react passively to stimuli. Whereas the traditional behaviourist/learning theorists are only concerned with stimulus-response (S-R) reactions, cognitive psychologists are also interested in the processing that takes place. Consequently they changed the formula to *Stimulus-Processing-Response* (S-P-R) (Leahey, 2000; Illeris, 2009), which is quite similar to the S-O-R principle of later neo-behaviourists, social-learning and social-cognitive-learning theorists, indicating that people can influence the interaction between themselves and the environment.

This fundamental difference led to differing views on the understanding of language. Skinner explained language in terms of stimulus-response reinforcement principles only, whereas Chomsky felt that a more innovative approach was required to explain the creativity and flexibility inherent in human language (Leahey, 2000; Harley, 2009). Chomsky’s ideas had an enormous

influence on psycholinguistics, the study of the psychological aspects of language (Stuart-Hamilton, 1995; Steinberg and Sciarini, 2006).

Despite the differences between behaviourist/learning theorists and cognitive theorists, many cognitive theorists consider themselves to be behaviourists in the methodological sense. As can be seen from the next section, most of them use very little introspection and infer the nature of personality from observing behaviour (Marx and Cronan-Hillix, 1987).

### **18.4.2 Cognition and the psychoanalytic concepts**

Although cognitive psychology is largely concerned with the *conscious* (in its focus on rationality), one does not find the concepts of ego, motivation, reinforcement, drive, unconscious or needs. These aspects are considered to be parts of the personality that are controlled, as are all the other parts, by cognitive processes (Schultz and Schultz, 1994). Andersen and Saribay (2008) however, in their explanation of “transference” in interpersonal relations, use the Freudian meaning of “transference” to explain how people transfer their mental representations or other social constructs from memory of significant others to define themselves and their relationships with new people. Such mental representations, or what Sullivan called “personifications”, can be based on more than what is known about the person him-/herself, the new person or the new relationship. Though it is accepted that behaviour is quite stable across specific types of situations, the same principle of mental representations could possibly be applied to how people might react in new situations or to any other new experience (Holmes and Cameron, 2005).

Some of the fundamental psychological concepts that are discussed in the next section also pertain to the psychoanalytic school of thought.

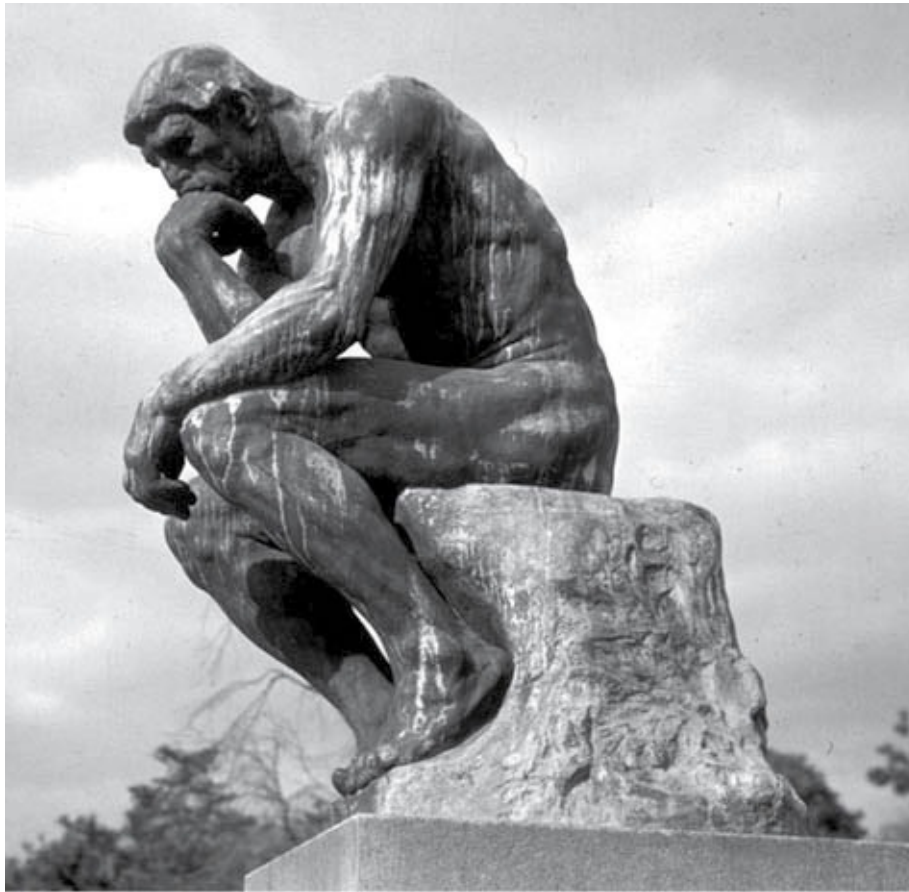
### **18.4.3 The cognitive perspective on some fundamental psychological concepts**

#### **18.4.3.1 The self-construct**

To Kelly, there is one personal construct found in virtually every system: “self-versus others”. However, this *self-construct* is often subordinated in different ways. One person might include “self” under “friendly” and “considerate” and act accordingly; another might subsume “self” under “intelligent” and subsume “others” under “stupid”. When “self” is subordinated to constructs that concern essential interactions with other people, the resulting subsystem is referred to as

the “core role”. *Core roles* are the roles people assume on the basis of how they think others perceive their core constructs. *Core constructs* are those constructs that are so basic to a person’s functioning that they can only be changed with serious consequences for the rest of the construct system. As opposed to core constructs, *peripheral constructs* are those that have less relevance to a person’s sense of self (Turner, 2011) and can be changed quite easily.

Kelly viewed vocational development as one of the central ways in which one’s life role is given meaning. Kelly’s idea of constructs, especially the self-construct, is also an example of constructivism (how people use cognition in self-organising processes to create order from what could be chaos if they did not have personal control through knowing what to expect) (Mahoney, 2002).



**Figure 18.2**      Reconstructing the self.

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#### **18.4.3.2 Basic motivating forces**

According to cognitive theorists, a person’s basic motivation, except to live, is to

interpret current events so as to anticipate and predict future events better. Whereas Freud's basic element of the mind consisted of instincts or wishes, Kelly's were constructs (Lester, 1995). According to Kelly, confirmation and disconfirmation of a person's own predictions have greater psychological importance than rewards, punishments or drive reduction (Ewen, 1998).

Festinger viewed this basic motivation as an attempt to reduce cognitive dissonance. *Cognitive dissonance* occurs when one cognitive element (an opinion, belief, attitude or value) implies the opposite of another cognitive element. Cognitive dissonance leads to a motivation to reduce the dissonance (Lester, 1995; Robbins, 1996; Scott-Kakures, 2009). Consider the example in the box below.

### **Research regarding cognitive dissonance and smoking**

Smokers with no history of quitting exhibited the highest levels of rationalisations for smoking. When smokers quit smoking, they reported having fewer rationalisations for smoking compared with when they had been smoking. Amongst those who attempted to quit but then relapsed, there was once again a renewed tendency to rationalise their smoking. Recent research has determined that smokers are motivated to rationalise their behaviour through the support of more positive beliefs about smoking, and these beliefs change systematically with changes in smoking status (Fotuhi, Fong, Zanna, Borland, Hua-Hie Yong and Cummings, 2012).

The organisational consequence of Festinger's theory is found in Equity Theory. *Equity Theory* is based on the premise that an individual compares his/her perceived input to output ratio with that of others. This perception of equity impacts on motivation and employee behaviour. For example, if the individual feels that he/she is being underpaid, this will result in decreased effort, demands for more pay, or other attempts to achieve equity in the organisation (Campbell and Pritchard, 1983). Different cultures have different perceptions of equity. For example, communist European and Confucian East Asian workers place more value on socio-economic resources than on equity, whilst American and Western European workers favoured equity (Yum and Canary, 2009).

Lecky viewed the basic motivation as the *need to maintain unity or self-*

*consistency* (Stafford and Canary, 2006). He saw individuals' need to maintain unity as a need to attain harmony, which is manifested in two ways (Lester, 1995):

- the maintenance of “inner harmony” in their minds (that is an internally consistent set of ideas and interpretations)
- the maintenance of harmony between their minds and the environment (that is between their experience of the outside world and their interpretations of this experience).

#### **18.4.3.3 The unconscious**

Kelly acknowledged that some constructs are not readily available to awareness. He identified the following three such constructs (Ewen, 1998):

- Preverbal constructs are difficult to identify, because they are formed before the person has acquired language and therefore a verbal label to attach to it. (The preverbal and verbal constructs can be compared to Freud's concept of the unconscious and the conscious respectively.)
- A submerged construct is a personal construct that is less available to awareness owing to the intolerable implications it holds for the individual. For example, one may say a person is “good”, but the other end of the construct (“bad”) is known but cannot always be said.
- A suspended construct excludes particular elements from awareness because particular constructs that would lead to the recall of particular experiences have not been devised. A suspended construct is similar to repression, but the difference is that one remembers what is structured and forgets what is unstructured, rather than remembering what is pleasant and forgetting what is unpleasant.

Although Kelly used concepts such as verbal, preverbal, submerged and suspended constructs, he stated firmly that there was no unconscious in his theory. He identified a level of awareness that is highest when construing or forming constructs in socially acceptable symbols, such as one's native language (Lester, 1995).

#### **18.4.3.4 Defence mechanisms**

Although Kelly did not pay direct attention to the notion of defence mechanisms in his theory, it is possible to draw analogies to defence mechanisms using his constructs (see the example in the box below).

### **Analogies between defence mechanisms and Kelly's constructs: two examples**

A person can be said to display reaction formation when he/she reclassifies elements of a construct from one pole to another pole of the same construct. If a person who was viewed as honest is now considered dishonest, reaction to the person will be diametrically opposite to what it once was.

Similarly, identification can be said to occur when someone important in a person's life becomes one pole of a construct (for example, like my father versus not like my father). The person classifies him-/herself on a pole (for example, I am like my father) and the construct becomes one of the person's core constructs (relevant to the person's sense of self).

Lecky defined *identification* as the attempt to unify the self-concept with the views of others by assimilating and imitating the opinions of others. *Resistance* is the response to counter reorganisation of constructs (Lester, 1995).

## **18.5 THE STRUCTURE OF PERSONALITY**

Kelly's theory is based on the underlying assumption of *constructive alternativism*. This means that every person interprets the world in terms of his/her *constructs*, which can be changed or replaced at will to always have a meaning system in place to predict events (*alternativism*) (Cervone and Pervin, 2008). This is similar to all the different personality theories that use different concepts to explain similar or different phenomena.

In Kelly's judgement, objective reality is perceived in different ways by different people. The objective truth of a person's interpretations are unimportant because they are unknowable. The implication of constructive alternativism is that people's behaviour is never totally determined; they are always free to some extent to revise or replace their interpretation of events (Hjelle and Ziegler, 1992).



**Figure 18.3** Forming constructs about the world.

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Kelly never gave a definition of personality, but did indicate that personality could be considered the abstraction made by people of the psychological processes they observe or infer in others. These psychological processes are made up of individual constructs to interpret experiences and to anticipate future events. To know a person, then, is to know how he/she construes personal experience, as well as one's own abstraction or perception of these processes in the individual.

Mischel, another cognitive theorist, differed from Kelly in that he was interested in analysing constructs to better understand the structure of personality, rather than in simply using them to predict behaviour. Mischel described the person in terms of five person variables (Aiken, 1993):

- *Construction competencies* are concerned with an individual's cognitive and

behavioural competencies. In other words, what does a person know and what skills does he/she possess?

- *Encoding strategies* are concerned with how people perceive, group and construe events. For example, a situation, such as a mathematics class, that is frightening to one person could be boring to another.
- *Expectancies* refer to the individual's expectation of what will occur in a given situation.
- *Goals and subjective values* indicate the influence of goals and subjective values attached to particular situations on the outcome of the person's expectancies.
- *Self-control systems and plans* are the different rules or standards that people adopt to regulate their behaviour. Mischel considered most behaviour to be intrinsically rather than extrinsically reinforced.

Mischel's research focused on how people could learn self-control by concentrating their attention on particular stimuli. This is of particular use in performance management (Aiken, 1993).

Lundh viewed the organisation of the mind as a system of meaning structures. *Meaning structures* explain why people perceive the same situations and events differently – every event has a different meaning for each person. Meaning structures change over time. The implication of this is that one can never recollect past events exactly as they occurred, because one views them in terms of one's current meaning structures. If one knows another person's meaning structures, one is able to relate to them. This corresponds with Kelly's sociality corollary (Lester, 1995), which is discussed in section 18.5.3.11.

McReynolds called the basic conceptual units "*percepts*" and not constructs. Human personality consists of two processes: obtaining and receiving percepts, then assimilating or integrating them. The combined process is known as *perceptualisation*. Percepts are organised into conceptual schemas in a similar fashion to Kelly's personal-construct system. Some percepts fit easily into existing schemas, others require restructuring. In accordance with Kelly's notion of *inconsistency* within construct systems and Festinger's notion of *cognitive dissonance*, McReynolds acknowledged that contradictions can exist amongst percepts and schemas.

Miller formulated a theory of cognition based on two major concepts: *images* and *plans*. For example, a person imagines what his/her career is going to be like and makes plans to attain this image. The *image* includes all the organised knowledge that an individual has about him-/herself and his/her world. The *plan*

is a hierarchical process that controls the order of operations, much like a computer program does. Plans are normally tested against an image and then executed (Lester, 1995).

Piaget termed the basic structures of the mind *schemata* (schemas). Schemas form a framework into which incoming information can fit. Every input is compared with the existing schemas and, if assimilated, results are accommodated into the schemas (Lester, 1995). Research into Piaget's work continues and his theories are currently being extended (Beilin and Pufall, 1992).

Lazarus, a cognitive theorist born and bred in South Africa, was the first theorist to recognise the importance of interpersonal relationships in maintaining maladaptive behaviour. He developed a set of clinical strategies called *multimodal behaviour therapy*, also known as *BASIC-ID*: B stands for behaviour, A for affect, S for sensation, I for imagery (for example, memory), C for cognition, I for interpersonal relationships and D for drugs (or neurological and biochemical factors that influence behaviour). These seven modalities make up human personality and any aspect of behaviour, emotion or cognition can be explained in terms of an interaction amongst these modalities.

People tend to favour a specific BASIC-ID modality. Thus one might speak of a "sensory reactor" or a "cognitive reactor". Multimodal therapy focuses on problems in all the modalities, approaching the client from his/her preferred modality (Engler, 1995).

### 18.5.1 Personal-Construct Theory

Kelly viewed the structure of the human personality in terms of *personal constructs*, also referred to as *templates of reality*. Constructs are constantly tested against reality and retained, modified or rejected. The validity of a construct is tested in terms of its predictive efficiency, that is, whether it applies in relevant situations (Hjelle and Ziegler, 1992).

Kelly proposed that certain types of constructs can be identified:

- A *pre-emptive construct* is one that prevents reintegration or re-examination of new information in order to place individuals and events in only one group. Rigid or fundamental beliefs, like ethnic labelling can be classified as pre-emptive, because once this label has been applied, it remains fixed and no amount of new information will sway this thinking (Turner, 2011).
- A *constellatory construct* allows more flexible thinking than pre-emptive constructs, as it allows individuals or events to be included in more than one group at a time, whilst still encouraging fixed assignments to a particular

group. Stereotyped thinking is an example of this type of construct as individual who belongs to a certain ethnic group is assumed to display the stereotypical behaviour associated with that group (Turner, 2011)(such as the thought “If this man is a second-hand car dealer he must be dishonest and manipulative.”).

- A construct that allows individuals to change their opinions when new information arises and is deemed relevant to the event or individual is called a *propositional construct*. Propositional thinking is flexible thinking, for example the car dealer would not necessarily be viewed as dishonest merely on the basis of his occupation. Whilst it is tempting to “construe” pre-emptive and constellatory constructs as undesirable and propositional constructs as desirable, Kelly proposed that if this were the case, no-one would ever be able to reach pressing decisions (Hjelle and Ziegler, 1992). However, propositionality has to be achieved for one’s construct system to be open to change (Ewen, 1998).

A further characteristic of constructs as identified by Kelly is whether they are tight or loose:

- A tight set of constructs leads to clear and unambiguous predictions about an event.
- Loose sets of constructs lead to varying predictions (Lester, 1995).

The following assumptions can be derived from the application of Personal-Construct Theory to organisations (Jelinek and Litterer, 1994):

- Organisations consist of people who consciously and deliberately coordinate their activities in search of a common goal.
- Individuals within an organisation coordinate their activities through shared cognitions. This could include a shared set of purposes, values and problem-solving procedures.
- Organisation members understand that the organisation is the beneficiary of the outcomes produced by their coordinated efforts.

The formal structure of Personal-Construct Theory consists of a *fundamental postulate* (assumption) so crucial that it underlies everything that follows, and *11 corollaries* designed to clarify and elaborate on the nature of personal constructs (Engler, 1995; Maltby and Day, 2007).

### **18.5.2 The fundamental postulate**

According to Kelly, anticipation of events influences all other cognitive constructions and related behaviour. Kelly states that people's processes are psychologically channelised by the ways in which they "*anticipate* events" (Engler, 1995:399).

All human behaviour (including thoughts and actions) is aimed at predicting events. Predictions are made by forming personal constructs.



**Figure 18.4** People's interest in weather forecasting comes from their desire to predict events.

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### 18.5.3 Corollaries

The process by which personal constructs are formed is explained in the corollaries discussed in sections 18.5.3.1 to 18.5.3.11.

#### 18.5.3.1 The construction corollary

According to Kelly, a person "*anticipates* events by construing their replications" (Engler, 1995:400).

The *construction corollary* points to the *similarities in repeated events* and the conservative nature of human beings, reflected in the universal need to be able to predict what the future will hold and rule out uncertainty. To predict the

future, people have to interpret previous incidents in their lives and identify the similarities and differences amongst them. On the basis of these similarities, people can predict or anticipate how an event will be experienced in the future. For example, if someone needs to get up early in the morning, he will set his alarm clock and expect it to ring at the right time the next morning, as it has done in the past.

### **18.5.3.2 The individuality corollary**

According to Kelly, people “differ from each other in their construction of events” (Engler, 1995:400).

The *individuality corollary* points to *individual differences in interpreting events*. Different people interpret events differently, because they perceive and understand events differently. For example, a colleague viewed by one person as friendly might be seen as manipulative by someone else.

### **18.5.3.3 The organisation corollary**

According to Kelly, each person characteristically evolves, for his/her convenience in anticipating events, “a construction system embracing ordinal relationships between constructs” (Engler, 1995:400).

The *organisation corollary* points to the *relationship amongst constructs*, to the fact that they are not all merely floating around as it may be, they are linked in specific ways in order for people to be able to anticipate certain outcomes. Kelly proposed that constructs were organised in a hierarchical structure, with constructs placed on various levels with varying importance. The more important constructs are referred to as *superordinate*, whereas the less influential are termed *subordinate* (Maltby, 2007). For example, a person who feels harmed in some way by people more attractive than him-/herself might switch the construct “attractive” from a subordinate place under the construct “good” to its opposite pole “bad”. The hierarchical structure is therefore not fixed – it can be changed according to its predictive efficiency. People then not only differ in the number of constructs they have in their systems, but also in the way in which their construct systems are organised. Another example is found stereotyping, where we decide that “we” are good, intelligent, attractive and moral, but “they” are bad, dumb, ugly and immoral.

### **18.5.3.4 The dichotomy corollary**

According to Kelly, a person’s “construction system is composed of a finite

number of dichotomous constructs” (Engler, 1995:400).

All personal constructs are *bipolar* or *dichotomous*. Each one has to be specified in terms of two *opposite poles*, which also differ across individuals. For example, if someone is thin, someone else is fat, for tall there is short, for hot there is cold. If everybody in the world was tall, then it would become meaningless as a descriptor, as someone has to be short in order for tall to have meaning.

Personal constructs are formed through a process of observing similarities and differences. Therefore at least three elements are needed to form a construct. Two of the construct’s elements have to be perceived as similar to each other, whilst the third element has to be perceived as different from these two.

Suppose a person is confronted with objects A and B, which he/she has never come across before. At this point the person would not construe a construct unless he/she was confronted with object C. The person would then be able to construe two of the objects as similar and the other as different in terms of a specific property (Meyer, Moore and Viljoen, 1997).

All constructs have two opposite poles. The way in which two elements are interpreted to be similar is called the *emergent* or *similarity pole* of the construct dimension. The way in which they are contrasted with the third element is called the *implicit* or *contrast pole* of the construct dimension (Hjelle and Ziegler, 1992). A vocational construct system would consist of a number of bipolar constructs used in anticipating the world of work, for example high versus low salary, limited versus extensive upward mobility, high job security versus job insecurity, stimulating versus boring (Niemeyer, 1992). To understand the individual in the work situation, one needs to ascertain his/her system of constructs, specifically with regards to the *dichotomy corollary*.

### 18.5.3.5 The choice corollary

According to Kelly, people choose for themselves that alternative in a dichotomised construct through which they anticipate “the greater possibility for extension and elaboration” of their system (Engler, 1995:400).

The *choice corollary* points to the *freedom of choice* of individuals. As the only way to anticipate the future is to make use of one’s personal constructs, one must constantly seek out ways to improve their usefulness. There are two different ways to do so:

- Firstly, one can choose to clarify the constructs one already has, thus narrowing one’s world for the sake of security. This has a higher predictive

- efficiency, because similar experiences and events are repeated.
- Secondly, one can choose the adventurous way of exploring new aspects of life. This has a lower predictive efficiency, because the construct system is expanded by seeking out new experiences.

Having chosen either security or safety, one might value that pole of the dichotomous construct that will better enable one to achieve this end. For example, consider the “friendly versus hostile” construct. A person who has decided on security might perceive a stranger as “hostile”, whereas a person who has decided on adventure might regard the same stranger as “friendly”. It is important that people choose the adventurous path at times, in order to improve the predictive value of their constructs (Ewen, 1998).

#### **18.5.3.6 The range corollary**

According to Kelly, a construct is “convenient for the anticipation of a finite range of events only” (Engler, 1995:400). Basically, this means that no construct can be useful for everything, for example, male and female (gender construct) is useful for humans, some domestic animals and pets, but we do not have to know the gender of every living organism, like geckos, flies or fish.

The *finite range*, also known as the *range of convenience*, includes all the events to which the construct is relevant or applicable. The predictive efficiency of a construct is jeopardised whenever it is generalised beyond the range of events for which it was intended. For example, the construct “academic versus non-academic” cannot be used to evaluate the merits of being “honest versus dishonest” (Hjelle and Ziegler, 1992). On the contrary, in understanding an individual, it is just as important to know what is excluded from the range of convenience of a construct as to know what is included in the *range corollary*.

#### **18.5.3.7 The experience corollary**

According to Kelly, a person’s construction system varies as he/she “successively construes the replication of events” (Engler, 1995:401).

The *experience corollary* points to *exposure to new experiences*. Even the best system of constructs is not perfect and needs to be frequently revised if one is to cope with an ever-changing reality. One may at first view a person as unfriendly, but after some time with the person one may change one’s perceptions and perceive the person as friendly, because new information has confirmed this. This process is also known as the C-P-C cycle, which is

discussed in section 18.8.1.

### **18.5.3.8 The modulation corollary**

According to Kelly, the “variation in a person’s construction system is limited by the permeability of the constructs within whose range of convenience the variants lie” (Engler, 1995:401).

The *modulation corollary* points to the *adaptation to new experiences*. A *permeable construct* is open to an increased range, for example to change one’s thinking about smoking or adding new information to our ideas of good versus bad, based on everyday experiences. An *impermeable construct* remains closed to the interpretation of new experiences, for example, to oppose any idea in one’s belief that smoking is not unhealthy. This corollary implies that the more permeable (open) a person’s super ordinate constructs, the greater the possible variation (systematic change) within the substructures. This also relates to the range of convenience, as it can be applied only in suitable situations. For example, a racist person might hold an impermeable construct of “competent versus incompetent”, whereas a person who is open to new experiences might adjust the same construct as he/she interacts with new cultures (Hjelle and Ziegler, 1992).

### **18.5.3.9 The fragmentation corollary**

According to Kelly, a person “may successively employ a variety of construction subsystems which are inferentially incompatible with each other” (Engler, 1995:401).

The *fragmentation corollary* describes the *competition amongst constructs*, which basically states that we can be inconsistent within our own ways of thinking and doing. To allow for the illogical aspects of human behaviour, Kelly assumes that contradictory subsystems of constructs can be used at different times by the same individual. Because of people’s use of contradictory subsystems of constructs, people are often surprised by others’ behaviour. For example, a person may preach honesty, but cheat when tallying scores in golf. This is more likely to happen when a person’s constructs are impermeable or when they are undergoing change (Engler, 1995).

For the most part, however, one’s anticipations form a consistent pattern. An example of the application of contradictory subsystems of constructs could be the person who usually couples “tolerance” with “good”, but who nevertheless takes exception to an act of cowardice, because “cowardice” happens to be

included under “hateful” (Ewen, 1998).

#### **18.5.3.10 The commonality corollary**

According to Kelly, to the extent that one person employs a “construction of experience which is similar to that employed by another”, that person’s processes are “psychologically similar to those of other people” (Engler, 1995:401).

The *commonality corollary* points to the *similarities amongst people in interpreting events*. In other words, if we understand things in the same way, we experience them in the same way. This is also the way in which a culture is formed – people of a given culture might find certain predictions more often confirmed than others (Maltby, 2007). Research has supported the idea that cultural differences are rooted in variations in constructs that people use (Triandis et al., in Hjelle and Ziegler, 1992). Although experiences are never identical, one’s ability to share and communicate with other people is based on the fact that one shares similar personal constructs with them (Engler, 1995).

#### **18.5.3.11 The sociality corollary**

According to Kelly, to the extent that one person “construes the construction process of another”, that person may play a role in a social process involving the other person (Engler, 1995:401).

The *sociality corollary* explains *interpersonal relationships* and the way in which we relate to other people or understand where they are coming from. To predict people’s behaviour and relate well to other people, it is essential to understand the ways in which they interpret the world. To facilitate this process, Kelly recommends that people play readily understandable roles (Ewen, 1998). Roles are determined by understanding the constructs of people with whom one is socially engaged. We have to place ourselves “in the other person’s shoes”, although we might not agree with the way in which the person has constructed his/her system. Roles need not be reciprocal in order to have a social relationship. For example, doctor-patient, lawyer-client, and employer-employee relationships are one-sided. The *optimal relationship*, however, involves a mutual understanding of another’s views of life, as is the case in a healthy relationship between spouses (Hjelle and Ziegler, 1992). A recent interpretation of how interpersonal cognition or self-representations of previous relationships influence new relationships is given in a book by Baldwin and Associates (2005), in which various aspects of self-representation are covered.

Research has indicated that social openness will become increasingly important in the age of multiculturalism. For example, it might facilitate success in organisational environments where individuals of various ethnicities must work together effectively (Schneider, Ackerman and Kanfer, 1996).

## 18.6 THE DEVELOPMENT OF PERSONALITY

Kelly did not elaborate on the development process of personal constructs or personality. This can be understood in the light of Kelly's theory which states that *constructs are formed throughout people's personal history or life experiences*. His perspective has been criticised. However, it does make sense that it is likely that people's different histories or life experiences might account for the variability amongst individual systems of constructs (Hjelle and Ziegler, 1992; Maltby and Day, 2007).

Piaget was the only cognitive theorist who attempted to elaborate on the development of personal constructs over a person's life span. According to Piaget, a child enters the world lacking the cognitive competencies an adult has. The child then develops schemas through a process of assimilation (incorporation into existing schemas) and accommodation (the formation of new schemas).

In order to understand further how a person interprets the world, Kelly developed the Role Construct Repertory Test (Rep Test). The *Rep Test* permits a person to reveal constructs by comparing and contrasting three significant people in his/her life:

- Firstly, the person specifies one important way in which two of these people are alike and are different from the third person. An example would be to indicate that Joan and Barry are both very friendly people, whilst Sam is rude.
- Secondly, the person names the opposite of the construct identified. For example, Joan and Barry are sympathetic, but Sam is not. The construct is sympathetic and its opposite sarcastic (Aiken, 1994; Ewen, 1998).

Most of the research into Kelly's theory has been on the Rep Test, which is surprising, given the clear nature of his theory. The Rep Test has also been applied in assessments of the enduring nature of friendships, indicating that those who share a similar view of the world tend to form stronger relationships (Duck, in Hjelle and Ziegler, 1992) as well as research areas such as tourism destination choices (Pike, 2012).

*Repertory grid methods* are used to obtain change in an organisation, for

example in job analysis, the writing of job descriptions and specifications, selection and placement, the preparation of task descriptions for training, the appraisal of performance, and the evaluation of job families for purposes of remuneration and compensation. In job descriptions, the grid is particularly useful in the analysis of jobs in which the job content is not self-evident, such as those of supervisors and managers. In employee selection, a useful comparison is that of applicants' constructs with "constructs" known to be typical of successful managers already employed. In task analysis the respondent is asked to provide constructs that characterise the differences between more-effective and less-effective holders of jobs.

Research on cognitive styles derived from the Rep Test has focused on cognitive complexity and cognitive simplicity. *Cognitive complexity* relates to the ability to perceive differences between oneself and others (Schultz and Schultz, 1994). Cognitive complexity is the more desirable cognitive style, as it enables a person to predict a greater variety of situations. It increases with development; therefore adults possess a greater degree of cognitive complexity than children (Maltby, 2007).

Cognitive-complexity measures have been used with success to determine managerial performance (Niemeyer, 1992; Adler, 1996; Cascio, 1998; Cheng and Chang, 2009).

### **Workplace application of measures of cognitive complexity**

The measures of cognitive complexity show how people think and behave, and they can be applied to computer-based simulations requiring a number of diverse managerial activities, such as preventive action, use of strategy, planning, response action and information search (Cascio, 1998).

Satisfaction or dissatisfaction with a vocational choice can also be explained in terms of cognitive complexity. Left vulnerable by their inadequate structure of constructs, less complex individuals might choose a work environment inconsistent with their personality style (Niemeyer, 1992).

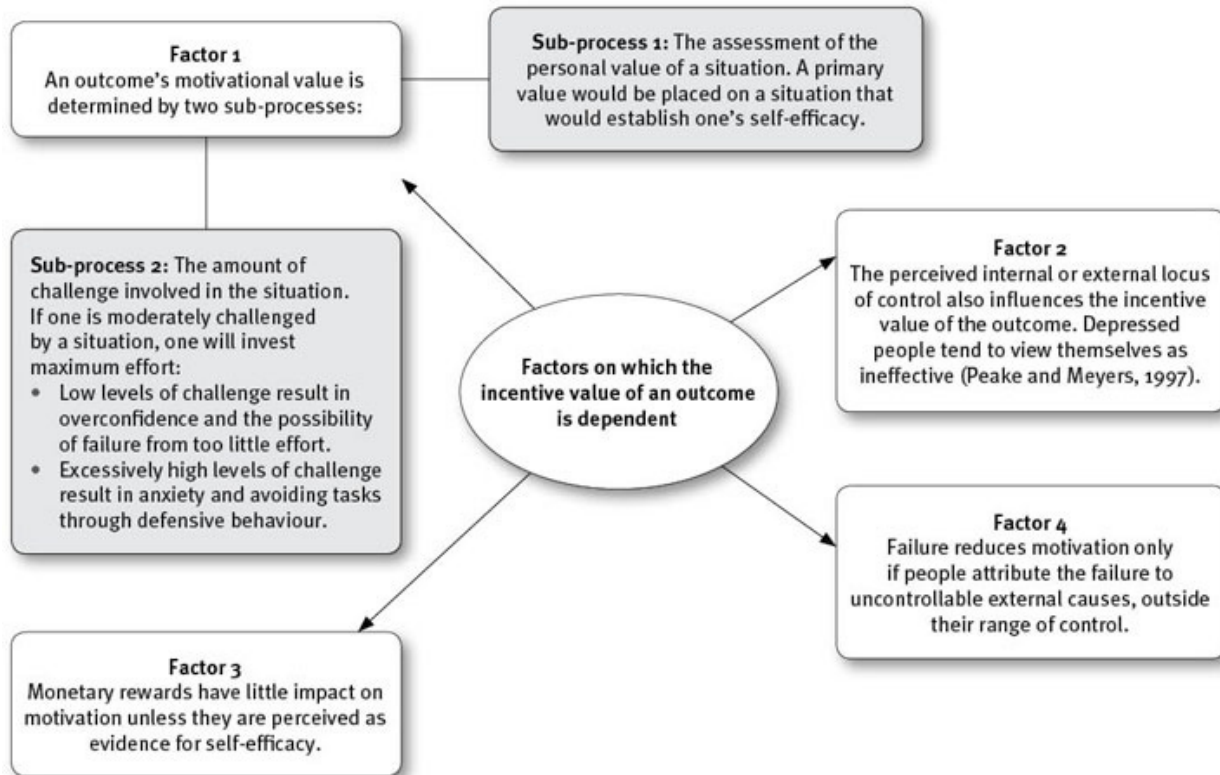
In a ten-year study, Kohn and Schooler demonstrated that the level of routine or repetitiveness of work that people performed affected their cognitive flexibility (Adler, 1996).

In addition to the Rep Test, various other cognitive tests have also been developed. One that has generated widespread research is the “business game”, of which various forms exist. The business game seems to have validity for assessment purposes (for example, performance on a manufacturing problem and changes in position level), but it seems less valuable as a training device (Cascio, 1998; Reardon and Wright, 1999).

## 18.7 COGNITION AND MOTIVATION

*Motivation* is an important part of cognitive theories. Recent performance interventions suggested by cognitive psychological research are key to the development of a competitive advantage by organisations. Good performance at any job requires knowledge and motivation. *Knowledge* is the “engine of performance”, whilst motivation is the “energy of performance” (Ribeaux and Poppleton, 1978; Clark, 1992; Robbins, 1996; Pintrich and Zusho, 2002). All motivation results from a drive to increase personal self-efficacy, which has been proven to affect various life dimensions such as study approaches, learning orientation, transformational leadership and creativity (Fawcett, Garton and Dandy, 2009; Gong, Huang and Farh, 2009; Prat-Sala and Redford, 2010).

The incentive value of an outcome is dependent on a number of factors, which are shown in Figure 18.5.



**Figure 18.5** Factors on which the incentive value of an outcome is dependent.

According to Kelly, *creativity* involves the ability to first think loosely and then tighten the constructs. The creative person can switch from loose to tight construing and back at will. Creative people can break the assumptions that people in their field make (loose thinking) and then build a good theory around the alternative assumptions (tight thinking). For example, consider the following thought: what if the Earth revolved around the Sun rather than the Sun revolving around the Earth? Rather than simply thinking about this possibility (loose thinking), Galileo built a formal theory based on this assumption (tight thinking) (Lester, 1995; Bink and Marsh, 2000).

There are several implications of motivational theory at an organisational level:

- Firstly, because all individuals strive towards improving their self-efficacy, organisations need to strive to move control and decision-making downward in the hierarchy as much as possible.
- Secondly, performance-review systems should be sensitive to motivational

issues and focus on the adjustment of challenge, beliefs about failure, personal values, and the amount of perceived versus actual control exercised by employees (Clark, 1992). Recent research investigated the effect of subconscious motivation on performance, indicating that subconscious motivation can indeed improve performance (Shantz and Latham, 2011).

In the South African context, a study published in 1994 found that a lack of intrinsic and extrinsic rewards had handicapped the development of performance values in black managers. Motivation theory states that performance depends on the perceived value of the outcome. Operational support for this study is found in the fact that remuneration for black employees was generally based on union agreements, rather than on incentives for performance. Traditionally, black employees were denied the opportunity to participate in performance evaluation, which might have led to a situation in which competitiveness, status aspiration and authoritarianism failed to emerge as important values for black managers (Watkins and Mauer, 1994). South African-based research has indicated that, in terms of distance education and barriers to persistence, intrinsically motivated students displayed higher persistence rates than extrinsically motivated students (Fourie and Van Zyl, 1998).

*Cognitive change* is an important aspect of organisational consulting. In fact, most consulting is considered to be linked to cognitive change, or the process by which information is imparted to the client in order to clear up distortions and provide more realistic alternatives to previous ways of functioning (Swart and Van Vuuren, 1998). It is furthermore utilised in management development (construing constructs in terms of organisational politics), team-building (Ackermann and Eden, 2011), decision-making (organising hierarchies) and career guidance (matching client constructs to career constructs) (Jankowicz, 1990).

The cognitive revolution has had a profound impact on research in personnel and human-resources management, with its emphasis on decision-making aspects. Personnel managers are decision-makers: they are responsible for decisions pertaining to job selection and placement, performance appraisal, negotiations, and personnel planning and forecasting. Personnel selection has evolved into a highly complex cognitive task, focusing on judgement, prediction, choice, evaluation and assessment. Stress-management research has also focused on the individual's construing of events and anticipation of future outcomes (Brodts, 1990).

There has also been reference to "managerial cognition", which attempts to

comprehend how managers think and then to compare them to other managers. For example, it has been found that business structure is an important influence on management thinking. Top managers in multibusiness firms have less connected cognitive maps of the dynamics of business than managers in firms that are more focused (Sparrow, 1994).

Fiedler and Garcia explained the process by which a leader obtains effective group performance through a theory called *Cognitive Resource Theory*. They showed how intelligent and competent leaders formulate more effective plans, decisions and strategies – and communicate them through directive behaviour – than those who are less competent (Robbins, 1996).

In the South African context, it has been found that cognitive modifiability is a better predictor of the success of disadvantaged black students than traditional intellectual assessment methods are (Shochet, 1994). *Cognitive modifiability* refers to the process whereby a person is able to apply cognitive principles to new situations after being coached in them. This corresponds with the finding of Taylor (1994) that competence in numeric and verbal skills depends on the quality and quantity of training. Rather than assessing potential through traditional verbal or numeric skills tests, abstract-diagrammatic material should be used. Employers will need to place more emphasis on potential than skills if the inequalities of South Africa's past are to be addressed (Taylor, 1994).

## 18.8 THE COGNITIVE PERSPECTIVE ON PSYCHOLOGICAL HEALTH

This section considers the cognitive perspective on psychological health from three vantage points, namely psychological adjustment, psychological maladjustment and emotions.

### 18.8.1 Psychological adjustment

Well-adjusted individuals test their personal constructs against reality in logical ways, confirm or discount the predictive accuracy of these constructs, and revise them appropriately. This sequence takes the form of the C-P-C cycle:

- *circumspection* – considering several constructs that can be used to interpret a particular situation
- *pre-emption* – deciding upon a single construct for dealing with the issue in question
- *control or choice* – selecting that pole of the construct that promises to

improve one's predictions (Ewen, 1998).

The healthy individual's constructs are more permeable, less pre-emptive and more propositional than a person who is less adjusted or less healthy (Engler, 1995).

From Kelly's perspective, the well-functioning person is defined by four distinct characteristics:

- Firstly, healthy people are willing to evaluate their constructs and to test the validity of their perceptions of other people.
- Secondly, healthy people are able to discard their constructs and reorientation their core role systems whenever they appear to be invalid. The implication of this is that their constructs are permeable, and they are able to admit when they are wrong and to update their constructs when necessary.
- Thirdly, healthy people display a desire to extend their construct systems by opting for the "adventurous" choice. They remain open to new possibilities for growth and development.
- Fourthly, healthy people have a well-developed repertoire of roles and are able to perform the social roles required of them (Hjelle and Ziegler, 1992).

### 18.8.2 Psychological maladjustment

Psychological disturbances represent the failure of a person's construct system to predict future events. Anxiety is provoked by this inability, which may be dealt with in one of two ways:

- The person can frantically attempt to search for new ways of construing the events of his/her world.
- The person might choose to adhere rigidly to invalid predictions. Based on the choice corollary, Kelly felt that the tendency to take the secure, no-risk alternative might explain why some people persist in behaving in the wrong way.

Why does a person persist in behaving in a hostile fashion, even if he/she is constantly rebuffed for it? Kelly suggests that this person is taking the secure route of knowing what to expect from the hostile behaviour. Choices are made in terms of what is best for predicting the future, not necessarily for what is best for the individual (Schultz and Schultz, 1994). Whatever the case, the maladjusted person cannot predict events with much accuracy and hence fails to learn about or cope with the world (Hjelle and Ziegler, 1992).

Miller stated that maladjusted *behaviour* is the result of two incompatible

plans (which control the order of operations). When the individual discovers this, it might require an adjustment of the image or knowledge that the individual has of his/her world and him-/herself. *Anxiety* is the result of two incompatible plans, neither of which can be abandoned. For example, one plan may come from the mother and the other from the father, and the child is required to think according to both which will evoke uncertainty and anxiety (Lester, 2009).

### 18.8.3 Emotions

In addition to describing psychological health, Kelly also detailed five emotions in cognitive therapy:

- *Guilt* occurs when the self is perceived as dislodged from the core role, or, in other words, if one departs from one's sense of identity. For example, if one considers one's core role to be a responsible and conscientious worker, and one violates this role intentionally or unintentionally by often being ill, guilt will follow.
- *Threat* is aroused by apparent widespread changes in the core constructs. For example, the retired executive will experience threat because he/she can no longer maintain his/her core role. This can also be described as an "identity crisis" because the concept of self is shaken and needs to be reconstructed (Lester, 2009).
- Whereas guilt and threat result from perceived changes in one's core constructs, *anxiety* results from an inability to construe important events and anticipate the future. This happens when a person's construction system no longer applies to the situation that he or she is faced with. Every person will feel a certain amount of anxiety owing to the imperfect nature of every construct system (Lester, 2009). Anxiety could be provoked, for example, if missing a promotion could not be explained by any construct in a person's system, leaving that person confused and unable to take corrective action. However, a missed promotion would be threatening if it indicated the need to reconstrue one's fundamental abilities and professional goals. Miller views anxiety as the result of abandoning or changing plans (Lester, 1995). McReynolds views anxiety as the result of unassimilated percepts. For him, the difference between normal and pathological anxiety lies in the degree of coping strategies necessary. Recent research has indicated that a two-way relationship between anxiety and cognitive processes exists; not only does anxiety influence thinking and the interpretative process, but cognitions can also moderate anxiety (Booth-Butterfield, 1991).

- *Hostility*, according to Kelly, refers to the attempt to hold onto an invalid construct in the face of contradictory or invalidating evidence. The hostile person refuses to accept that his/her expectations of other people are unrealistic and need revision. Instead, he/she tries to make other people behave in ways that would fit his/her preconceived notions. Many of the tactics that people use to reduce what Festinger identifies as cognitive dissonance resemble what Kelly calls hostility (Lester, 2009).
- *Aggression* is used in much the same way as assertiveness is used: it is the deliberate placement of oneself in situations that call for decisions (Engler, 1995). For Kelly, the opposite element of aggressiveness is passiveness (Lester, 2009). The aggressive business person seeks out business opportunities and actively pursues them. Kelly made the interesting clinical hypothesis that people are especially aggressive in areas that cause them anxiety, which are those they cannot construe well (Lester, 2009; Martinko and Zellars, 1998).

Lecky later extended Kelly's list of emotions to include definitions of love and pleasure:

- *Love* is defined as the reaction to someone who has already been assimilated and who serves as a strong support to one's idea of self (in Kelly's theory, one's core constructs).
- *Pleasure* is found when one masters new experiences. For example, as people mature they enjoy more complex music and art. The more difficult the task that has been overcome, the greater the pleasure derived from it (Lester, 2009).

Some attempt has been made by recent cognitive psychologists to acknowledge the effect of emotion in behaviour. For example, Beck's theory of depression is based on the belief that cognitive processes play a crucial role in affective processes. Depression is the result of persistent cognitive errors that are due to faulty information processing (Gotlib and Hammen, 1996; Gotlib and Joormann, 2010; Peake and Meyers, 1997; Gotlib and Abramson, 1999; Lara and Klein, 1999; Lazarus, 1999; Mathews and MacLeod, 2005). For example, *catastrophising* refers to the error of overstating consequences or defining an anticipated event as catastrophic. Compared with non-depressed individuals, depressed people tend to see themselves as responsible for problems and frustrations, and to see situations as unchanging and globally negative (Pervin, 1996). Beck's therapy is intended to change the cognitions of depressed persons,

in the belief that a more positive cognition would lead to more positive affect (Marx and Cronan-Hillix, 1987; Joormann and Siemer, 2004; Joormann, Talbot and Gotlib, 2007). Although research indicates that emotions might be changed by altering one's preconscious cognitions.

In terms of cognitive biases and emotional regulation in depression, *sustained negative affect* has been identified as a core feature of depression, due to the fact that cognitive appraisals determine whether an emotion is experienced and also which emotion is experienced, making it the main route through which emotion is experienced (Gotlib and Joormann, 2010). Bias and deficits in cognition affect people's ability to regulate emotion and moods, which can lead to increased risk for emotional disorders (Joormann, Yoon and Siemer, 2009). Ellis is a cognitive behavioural theorist who devoted a lot of attention to human emotions. He developed a theory of *rational-emotive therapy* (RET), which states that emotions and cognitions are intricately interrelated. His A-B-C theory of personality, which underlies RET, holds that when a highly charged emotional consequence (C) (for example, an anxiety attack) follows a significant activation event (A) (such as seeing a spider), A may seem to, but does not actually, cause C. Instead, emotional consequences are caused by the individual's belief system (B) (all spiders are dangerous and therefore I should be anxious).

This statement helps to explain why two people might react differently to the same statement. For example, if two people are told they are stupid, one might laugh and the other become depressed. This difference is not caused by the activation event, A (being told that he/she is stupid), but rather by the individual's belief system (B) (for example, "I am what other people think of me").

Most major theories of personality concentrate either on A, the activating events in a person's life (such as the psychoanalytic theories), or C, the emotional consequences, and rarely consider B, the belief system. Ellis believes that irrational beliefs are at the centre of maladaptive behaviour (Engler, 1995). He believes that people inherit a tendency to raise cultural preferences into "musts" and social norms into "absolute shoulds". Ellis then disputes these irrational beliefs rationally and behaviourally (decreasing self-defeating messages whilst increasing positive messages) (Cheston, 2000). Through cognitive therapy he attempts to show clients how to reorganise their "should" and "must" thoughts, how to separate rational and irrational beliefs, and how to accept reality. The following are two examples of his famous irrational ideas:

- "It is easier to avoid than face life's difficulties."

- “If something once strongly affected one’s life, it should have an indefinite effect on it.” (Peake and Meyers 1997).

#### **18.8.4 Processing of emotional information in depression**

Mathews and MacLeod (2005) found strong evidence related to memory processing in depression, where sufferers tend to recall negative memories more often than positive memories, and an over generalisation of memories as mostly negative. This however, may be more restricted to explicit memory.

Automatic negative *interpretation* of events and ambiguous stimuli has also been proven to be prevalent in depression sufferers (Gotlib and Joormann, 2010; Mathews and MacLeod, 2005; Zinbarg and Yoon, 2008).

*Perception* in depressed individuals has been researched quite extensively through the use of facial expression identification (Hansen and Hansen, 1994; Salovey and Mayer, 1990; Carton, Kessler and Pape, 1999; Rubinow and Post, 1992). Recent research has indicated that, when shown different facial expressions, depressed individuals were less inclined to perceive subtle positive emotional expressions than non-sufferers (Joormann and Gotlib, 2006).

*Attention* biases have also been reported in depressed individuals, where depressed individuals do not direct their attention to negative information more regularly than non-depressed individuals, but they do find it difficult to disengage from the negative information once it captures their attention (Rinck and Becker, 2005). Selective bias for negative information has also been shown to be an important role player in vulnerability to depression (Joormann and Gotlib, 2006; Joormann et. al., 2007).

*Inhibition* also plays a role in emotion regulation. Struggling to disengage from negative information might be due to problems with inhibitory control associated with depression (Gotlib and Joormann, 2010). This could lead to prolonged exposure to irrelevant negative information, which leads to sustained negative affect, typical of depressive episodes.

### **18.9 SUMMARY AND CONCLUSION**

According to cognitive and information-processing perspectives, personality and a person’s views about him- /herself, others and the world are based on each person’s cognitive constructs, which are the basic structural and organising units of personality. Cognitive constructs, which are based on the acquisition of knowledge and information processing, enable people to experience

homeostasis, predict events, and feel actively and rationally in control of their lives. Most cognitive constructs involve the self-construct, which also relates to other people. Constructs are acquired or “learned” in the environment through cognitive processes. However some constructs might operate from non-conscious levels.

Kelly, the main exponent of cognitive theory, based his Personal-Construct Theory on a person’s fundamental postulate of cognitive anticipation of events, and on 11 specific corollaries that qualify and support the fundamental postulate. These corollaries explain similarities and differences within and between people, and also how people cope in their various life roles, adapt to existing and new situations, and anticipate future events. Constructs, formed and changed during the life span, are also the main motivating factors in human behaviour, especially people’s knowledge and cognitive control, which allow them to plan and predict events. People are primarily motivated if situations are assessed to have value, to offer a challenge that will develop self-efficacy, and to allow for personal control. People will enjoy psychological health if their personal constructs are valid in applicable situations, if they allow them to behave without stress according to their field of personal knowledge, and if they can adjust and change to fit new demands and situations. The expression of negative and positive emotions, such as anxiety, guilt, depression, guilt and pleasure, is caused by the level of applicability of personal constructs to the self and other situations.

Kelly has been praised for his theory’s lack of rigidity. He said that a theory is the result of one’s own personal construct system, which means that the theory might change as the person proposing the theory, the environment and knowledge change.

Cognitive theory can be viewed from varying points of view. Maddi (1996) provided a useful model for viewing Kelly’s theory by categorising it under the *consistency model*, because, instead of focusing on forces motivating behaviour, it emphasises the influence of feedback from the external world to the individual. As people interact with the world, their experiences confirm or discount external norms. If this feedback is consistent with what they expect, everything is fine. If not, they experience emotional discomfort. The overall goal of living is to minimise experiential inconsistencies. Cognitive appraisal, cognitive constructs and cognitive therapies also feature prominently in positive psychological concepts and practices to facilitate optimal human functioning and well-being.

Kelly’s idea of the personal construct has proved to be a very useful

psychotherapeutic tool, as well as being particularly useful to I-O psychologists and to researchers. Whilst allowing for a considerable degree of distinctiveness, Kelly's theory still provides a logical framework for the scientific study of personality (Ewen, 1998).

Cognitive research has been widely applied in consumer psychology, which is particularly concerned with opinions, values, attitudes and lifestyles associated with preferences for certain goods and services. On the basis of the cognitive attributes assigned to a particular market, products are advertised, packaged and promoted in a manner that will appeal to that market (Aiken, 1993; Foxall and Yani-de-Soriano, 2011).

Criticisms of cognitive psychology have concerned the difficult concepts and complexity, and have observed that human behaviour cannot be seen in isolation from its social and physical environment, and non-intellectual variables such as emotion (Marx and Cronan-Hillix, 1987; Cervone and Pervin, 2008). Cognitive psychology has also been criticised for not providing well for self-concept explanations.

Despite its distinctiveness, Kelly's theory has not gained wide acceptance, though cognitive theory is popular in the USA and the United Kingdom, especially in clinical use (Maltby and Day, 2007). Possible reasons for this include the omission of familiar concepts such as motivation, unconscious influences and needs, and that the style of Kelly's writing does not allow for human passion and drama as experienced by the psychologist in everyday life. In this regard it is said that, psychologically, people are what they remember. However, memory, being a central function in cognitive psychology, is not always conscious. Research has indicated the role of subconscious memory on performance (Shantz and Latham 2011) and further research in this field is sure to follow. (Epstein also identified a number of important directions for research in cognitive psychology, for example about the development of critical thinking over the lifespan, finding measures other than self-report inventories for assessing development in children, and the development of remedial procedures for improving constructive thinking (Pervin, 1996).

Future directions for organisational research point towards new ways of integrating cognitive psychology with strategic leadership by studying the information processing processes of leaders and followers and the impact it has on the organisation itself (Avolio, Walumbwa and Weber, 2009). Research on cognitive processes in personnel-management decision-making, especially in the field of human-resources planning, motivation and learning, provides new

opportunities for the I-O psychologist (Emener, Richard and Bosworth, 2009). Although much of cognitive research on the applications in an organisational setting has focused on decision-making processes, there is a growing concern with the characteristics of high-performing organisations and the restructuring of organisations. This represents a shift from micro-processes (such as decision-making) to macro-level variables (such as team decision-making and performance). Consequently research into cognitive appraisal is moving towards the design of appraisal systems based on cognitive processes and not the traditional job-analysis techniques (Cheng and Chang, 2009).

## **18.10 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Which one of the following relates to a cognitive approach to personality?
  - a) It emphasises a subject's conscious experiences of the events she or he experiences in everyday life.
  - b) It emphasises a subject's perceptions of experiences, especially how these experiences are construed and forms his or her interpretations of things.
  - c) It emphasises the unconscious meaning that people ascribe to events, not simply the objective events themselves.
  - d) It attempts to understand an individual in his or her fullness, rather than only selected aspects of the person relevant to a small number of traits.
  - e) It emphasises the gathering, processing, coding and storage of information.
2. Which description does Kelly use to describe the "self"?
  - a) core construct
  - b) pre-emptive construct
  - c) propositional construct
  - d) constellatory construct
  - e) peripheral construct.
3. Sipho is given three tasks (A, B and C) to complete by the end of the day. Sipho goes through the tasks and concludes that tasks A and C are easy, whilst task B is labelled as difficult. The difficult task is completed in the morning whilst the easy tasks are completed in the

course of the afternoon. According to Kelly, which of the following corollaries best describe the manner in which Sipho labelled the tasks?

- a) range
  - b) choice
  - c) dichotomy
  - d) organisation
  - e) modulation.
4. "If you become a taxi driver, you will also become a bad driver, since all taxi drivers, are considered to be bad drivers." This statement is an example of \_\_\_\_\_.
- a) a pre-emptive construct
  - b) a defence mechanism
  - c) encoding strategies
  - d) constellatory constructs
  - e) propositional constructs.
5. Which corollary is evident in constructs that are based on two opposite poles, such as "tall" and "short"?
- a) range
  - b) choice
  - c) dichotomy
  - d) organisation
  - e) modulation.

## **Answers to multiple-choice questions**

1 = b; 2 = a; 3 = c; 4 = d; 5 = c

## **Issues for discussion and practice**

1. What are the question(s) that cognitive psychology attempts to address?
2. According to Kelly, what motivates people?
3. Give an example from your own life, from the life of someone you know well, or from fiction, to illustrate:
  - a) how the same event can be construed in alternative ways, and the different effects of these constructions
  - b) constructions based on relevant prior experiences
  - c) the healthy use of the C-P-C cycle

- d) a construct becoming more permeable as a person grows older
  - e) the unhealthy use of a pre-emptive or constellatory construct.
4. If you were a lecturer, how would you draw up a schedule for students to enable them to work through and understand all the content of this chapter in one week?
  5. Use construct theory to explain love.

## CASE STUDY

### **The art of cognitive construction**

An architect has just been asked to design plans and a model depicting an eco-friendly estate, inclusive of a golf course and fitness centre. Various other architects are competing for this project. Whilst this architect is considering the request, the following is going through his mind:

“OK, if I meet all the requirements and show the developers how they can save money by implementing recycling and eco-friendly designs, I would differentiate myself from the other architects. It will probably take me about six weeks of solid research and work. Six weeks comes to almost a month and a half. I will have to put my studies on hold, as well as all my other projects. I can't really afford that. On the other hand, eco-friendly designs are all the rage these days, and if I get this project, I can establish myself as an expert in the field and I can become quite well known. Do I want to be well known? Ray Miller is well known, but not considered as a great architect. His work is too commercialised. I don't want to be known as a common architect – I am an individualist and I talk through my architectural designs. What message do I want to convey? How creative can you be when you have to conform to eco-friendly standards? I am not an “unknown” – I have worked on big projects and with big names in the business. Do I want to limit myself to these types of designs? Then again, I could do with the money.”

- 
1. How will a cognitive theorist explain the architect's conversation with himself?
  2. What decision do you think the architect will make? Explain your

answer. Is your answer more reflective of the behaviourist or the cognitive approach?

3. Explain if you find any evidence of the fundamental postulate and the supporting corollaries in the above passage.

## **PART FIVE**

# **Employee and organisational well-being**

The chapters in this part are concerned with the study and promotion of psychological well-being, which should be a primary aim for many psychological disciplines, and of specific psychological disciplines in particular.

In the work context employee and organisational well-being are both influenced by the personal attributes of employees, as well as the interaction between employees and their work environments. A positive view towards psychological health aims at facilitating people's inner resources or strengths and resilience so that they stay healthy and cope effectively. Yet psychological adjustment problems and work dysfunctions occur and influence employee and organisational health. A balanced approach that addresses any problems, but also utilises the strengths in people and organisations, should be followed in promoting optimal health. In this regard professionals in psychological health and adjustment use recognised systems for diagnosing and classifying wellness behaviour and psychological disorders.

The effective management and promotion of employee and organisational health should be one of the primary success criteria for human resources and business practices.

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# Chapter 19

[Psychological well-being](#)

## **Chapter 20** [Psychological disorders and work dysfunctions](#)

## **CHAPTER 19**

# **Psychological well-being**

*Michelle May*



## [Introduction](#)



## Pathogenic and well-being orientations



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19.4

## Studying well-being: The three main directions of research

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Constructs used to describe well-being

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Implications for assessment and diagnosis of well-being

19.7

## Implications for health promotion in organisations

19.8

## Summary and conclusion



## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- discuss the construct “well-being” as applied in general and in the work context
- discuss the construct “positive emotions” as applied in general and in the work context
- demonstrate an understanding of salutogenesis and fortigenesis
- explain the study field of positive psychology
- give a historical overview of the development of positive psychology
- critically discuss the assumptions underpinning positive psychology
- identify and discuss constructs that conceptualise subjective well-being and positive emotions in positive psychology
- critically analyse the implications of positive psychology for diagnosis and interventions in the work context.

## 19.1 INTRODUCTION

Many people, despite the difficult circumstances and the stressors they experience, are able to achieve success and optimal levels of human functioning. These people are mostly very healthy, have a positive outlook on life, and are able to cope well with life’s demands, even if they have encountered or are experiencing hardships. In contrast, there are other people who struggle with health and adjustment problems, or are just not coping, even if they are more or less in the same circumstances as their healthy counterparts.

So why are some people not able to cope with the stressors that others can cope with? What resources do healthy or well-adjusted people have at their disposal, and how do they use such resources? This chapter addresses these questions and related issues that deal extensively with positive human functioning and concepts related to well-being or wellness.

Employee and organisational well-being should be the main aim in the applied fields of I-O Psychology to ensure the best work performance and business outcomes. The best-suited employees should be selected, and their

potential and strengths developed in order for them to function optimally in the work context.

In order to achieve this, human-resources practitioners and I-O psychologists ought to have a more balanced approach towards employee and organisational well-being. They should manage problem employees and problematic work situations, but also explore and promote the many obvious and hidden positive resources in employees and organisations to obtain optimal performance.

Over the long run, optimal performance might create improved well-being in the workplace and decrease possible problems.

In this chapter the *aim* is to emphasise well-being by discussing theory and concepts that denote the positive aspects of peoples' well-being and adjustment to achieve optimal subjective well-being.

## 19.2 PATHOGENIC AND WELL-BEING ORIENTATIONS

As in the health and social sciences, aspects of I-O Psychology have been characterised by a *pathogenic orientation*, that is an orientation towards the abnormal, with the fundamental question being “Why do people fall ill or not perform?” and other questions concentrating on problematic behaviour, with too little focus on human resources and skills (Strümpfer, 1995; Rothmann, 2002). Thus, psychology has often focused on repairing damage using a disease model of human functioning, and a preoccupation with repairing the negative things in people's behaviour (Seligman, 2002). Even in the management of people in the workplace, there has traditionally been an inclination to act on the assumptions of deficits. However, the focus on positive concepts, such as *job satisfaction*, *organisational commitment*, *career development*, *organisational consultation*, *psychological assessment and health promotion*, in I-O Psychology, more so than in other fields of applied psychology, cannot be denied (Rothmann, 2002). After all, in I-O Psychology, as in this book, there is quite a heavy emphasis on how to get, develop and maintain effective and well-adjusted employees, with the aim of obtaining the best fit between employees and their work to ensure optimal functioning of employees and organisations.

In contrast to pathology, the *strength paradigm* emphasises the well-being of people, their intrinsic potential to grow and to be in control, and to manifest and use resilience or health-protecting behaviours, even in stressful circumstances (Strümpfer, 2003). By focusing on positive human functioning, the focus of

interventions such as assessment, development, management, treatment of problems, and research is on ensuring positive human functioning and fostering excellence in all spheres of life. In this regard, Seligman (1998, cited in Strümpfer, 2005) stated that treatment is not just fixing what is broken, but also entails nurturing what is best within people. Achieving this objective would revitalise one of the three distinct missions identified by psychology for psychological practice before the Second World War (Seligman, 2002).

### 19.3 THE CONCEPTUALISATION OF HEALTH AND WELL-BEING

*Well-being* and *health* refer to the actual physical health of individuals, as well to the as mental, psychological or emotional health of individuals, as affected by societal factors (Danna and Griffin, 1999). In 1947 the World Health Organisation (WHO) (cited in Csiernik, 1995) defined *optimal health* as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (Hattie, Myers and Sweeney, 2004). According to Hattie, Myers and Sweeney (2004:2), Halbert Dunn, who is widely credited as being the “architect” of the contemporary wellness movement, in 1961 defined *wellness* as “an integrated method of functioning which is oriented toward maximising the potential of which the individual is capable”. Strümpfer (2005) commented on the problem of the many overlapping concepts in the study of well-being or wellness and the need to determine a factor structure for the concept. In the international literature the word “wellness” is seldom used; “well-being”, denoting the same meaning, is preferred.

In the numerous empirical studies, *health* seems to include both the study of physiological and psychological symptoms and the diagnosis of health and illness in the more medical context, which is similar to a definition of the field of health psychology (Schwarzer and Guti  rrez-Do  a, 2000). *Well-being*, however, is a broader and more encompassing construct that includes general or context-free measures of life experiences (for example, life satisfaction and happiness), as well as generalised job-related experiences (such as job satisfaction) and facet-specific dimensions (such as satisfaction with pay or co-workers) (Warr, 1996). Well-being describes a person’s experience of life within all spheres of daily activity, specifically the person’s self-reported happiness and perceived life satisfaction as determined by the individual’s global assessment of his/her life, based on his/her own criteria (Danna and Griffin, 1999).

## **ETHICAL READER: The strength paradigm versus the pathogenic orientation in psychology**

Through the use of both pathogenic and salutogenic orientations, a balanced perspective about human functioning will be possible in I-O Psychology. However, the predominance of the pathogenic orientation, in many instances, demands a more concentrated effort, in psychology in general and in I-O Psychology specifically, by those who are involved in the strength paradigm of positive psychology (Strümpfer, 1995; Seligman and Csikszentmihalyi, 2000). Others should also rethink and redefine their knowledge and skills to find their own strength resources in order to enhance a more positive approach in the promotion of well-being.

It is important to distinguish the positive side of health-status concepts and conditions from the negative emphasis (on illness, pathology and maladjustment). Disciplines such as clinical psychology, abnormal psychology and I-O Psychology incorporate both sides. However, in their operational functioning, with people manifesting with psychological problems, they might seem to emphasise the negative. In these disciplines, knowledge of the positive side is often necessary in understanding, assessing and dealing with the negative or problematic side of human health.

For example, therapy and counselling by nature aim at redefining problems into positive living and improved coping, and these helping systems also utilise innovative strategies in this regard.

But distinguishing the negative and positive is not always easy. The reality is that illness and maladjustment do exist, but that all illnesses and maladjustments are not necessarily related to being negative. Some might exist even if the troubled individual or group wished otherwise, and even if the people in question had many positive resources and strengths that they also used.

Fortunately, this is also an aspect that positive psychologists recognise: they do not want to ignore existing psychology and the negative side of psychological health, but want to create a balance and utilise positive resources and strengths more towards an ideal of optimal human functioning.

It is for this reason that current books on psychological well-being

cover both the positive and problematic aspects of psychological health and of employee well-being, which in reality have to be managed by psychologists and other health workers.

### 19.3.1 Subjective well-being

*Subjective or psychological well-being* (also referred to as *positive mental health*) is a person's perceptions and evaluations of his/her own life in terms of his/her general state of well-being (Keys and Lopez, 2002). Subjective or psychological well-being has many sub-facets, and some sources mention at least 14 distinct elements, which in turn can be classified into 2 broad factors:

- *Emotional or affective well-being* refers to aspects such as positive and negative affect, happiness and life satisfaction.
- *Positive psychological and social functioning* can include measures of self-acceptance, positive interpersonal relations, personal growth, purpose in life, environmental mastery and autonomy.

Subjective or psychological well-being is therefore associated with various aspects of a person's subjective experience and evaluation of the quality of life and the quality of emotional, psychological and social well-being (Keyes, Hysom and Lupo, 2000).

Researchers have shown through the use of specific scales and measures that emotional, psychological and social well-being is moderately correlated but distinct dimensions of well-being (Keyes, Hysom and Lupo, 2000).

Emotional or affective well-being is an individual's evaluation of his/her happiness and life satisfaction, as well as the higher ratio of the number of positive affect over that of negative affect. It can be shown by a ratio of the number of positive affect over the number of negative affect: the higher the ratio, the better the person's emotional well-being. Thus, emotional well-being is an individual's perceived life satisfaction, perceived happiness, and ratio of positive to negative affect.

Several studies suggest that *psychological well-being* consists of six facets:

- *self-acceptance* (The person has a positive attitude about the self, based on the acceptance of several aspects of him-/herself and past experiences.)
- *personal growth* (The person's experiences his/her life as a continuous process of development, change and growth based on openness to new experiences and a need to develop own potential.)
- *purpose in life* (The person experiences life as meaningful and purpose-driven)

because of a sense of direction in life, and a focus on achieving specific goals.)

- *environmental mastery* (The person feels competent to manage a complex environment by creating contexts that allow him/her to manage the responsibilities of daily life.)
- *autonomy* (The person is self-determining, independent, regulates his/her behaviour internally based on personal standards, and resists social pressures to think and act in certain ways. Consequently, the person is confident about his/her opinions, even if these opinions are different from those of others.)
- *positive relations with others* (The person is able to form warm, satisfying, trusting and sharing relationships with others based on a genuine concern for others, the ability to express empathy and affection, and the understanding of the give-and-take nature of human relationships.) (Keyes, Hysom and Lupo, 2000).

Several studies suggest that *social well-being* consists of five facets:

- *social acceptance* (The person believes that people are kind. He/she accepts people, despite their displays of complex and perplexing behaviour at times.)
- *social actualisation* (The person believes that society has the potential to grow positively and realises that potential by helping it to become a better place for everyone.)
- *social coherence* (The person experiences the community as logical and predictable.)
- *social integration* (The person feels part of and supported by the community, as well as sharing commonalities with the community.)
- *social contribution* (The person thinks that he *she has something valuable to give to the community, and that the community values his/her contributions.*) (Keyes, Hysom and Lupo 2000).

The six distinct components of human development and positive psychological functioning as proposed by Ryff's *Multi-dimensional Model of Well-being* (in Degges-White, Myers, Adelman and Pastoor, 2003) are the same as the facets of psychological well-being. Richard Ryan and Edward Deci (2001) developed the *Self-determination Model*, which proposes that three innate, essential and universal psychological needs – relatedness, competence and autonomy – have to be satisfied throughout the individual's life for him/her to experience "eudaimonia", a state consisting of psychological growth, integrity, *well-being*, vitality and self-congruence (Strümpfer, 2003). These three innate, essential and

universal psychological needs are similar to the facets of psychological and social well-being.



**Figure 19.1** The social contribution made by this swimming teacher, and her sense of being valued for this contribution, forms part of her sense of social well-being.

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Carol Ryff and Burton Singer (2002) agree with the assumptions about emotional, social and psychological dimensions of subjective well-being and related research, but indicate the many knowledge gaps, for example in research on gender and other differences with regard to psychological well-being, as well as the role of human biology in positive mental health.

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### Testing the undoing hypothesis

Barbara Frederickson and Robert Levenson tested the undoing hypothesis through experiments. One experiment consisted of showing participants a film clip eliciting fear. Four other film clips that illustrated the positive emotions of contentment and amusement, as well as sadness and neutrality in feelings, were presented immediately after the film clip that elicits fear. This was done across various experimental groups. The cardiovascular activity of the participants was recorded during the viewing of the clips. The results showed that the two positive emotion clips (contentment and amusement) resulted in the fastest cardiovascular recovery.

#### 19.3.2 The role of positive emotions in subjective well-being

Research has confirmed the role of positive emotions in the experience of subjective psychological well-being. Barbara Frederickson (2002) describes *positive emotion* as brief positive reactions to some event that is personally meaningful. Positive emotions include emotions such as *feelings of well-being*, happiness, joy, interest, contentment and love.

Frederickson's *Broad-and-Build Theory* explains how positive emotions and affect *broaden* people's reactions to daily situations, and how they allow people to *build* resources to deal with these daily situations. Through positive emotions people are interested in what is happening around them. In other words, when a person feels good he/she is more open to others, interacts more freely with others, seeks out new experiences, and more readily takes up creative challenges or helps others in need. This interest leads to a newer and more adaptive *thought-action tendency* for the exploration of the world around one. Through positive emotions people also engage in non-specific action tendencies. These *non-specific action tendencies* involve a certain level of aimless, unasked-for readiness to engage and interact with that which presents itself, and a certain amount of readiness to engage in enjoyments. This openness to engage with new ideas, experiences and actions broadens our thoughts, actions, experiences and options available for consideration and use in any challenging situation. Through this enhanced awareness of happenings around them, people can then build the number of intellectual, emotional and cognitive resources within themselves, which they can creatively use to deal with challenges and threats in the present

and future (Compton, 2005; Strümpfer, 2006).

Negative emotions allow people to rapidly respond to environmental threats with specific action tendencies to get out of harmful situations (Compton, 2005). Positive emotions and affect can then provide a psychological break from and defense against negative emotions and adversity. Frederickson uses the *undoing hypothesis* (see box below) to explain that positive emotions help both the body and the mind to regain a sense of flexibility and equilibrium after the impact of negative emotions (Compton, 2005:27).

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## Real smiles and forced smiles



**Figure 19.2**

In so-called "Duchene laughter and smiling" certain muscles surrounding the eyes are contracted, pulling the skin from the cheeks and forehead towards the eyeballs, which results in raised cheeks, bagging under the eyes and crow's feet. These eye muscles are difficult to move at will and they differentiate genuinely felt laughs and smiles (see picture above) from make-believe laughs and smiles (see picture below). In addition major muscles pull the lip corners up at an angle. Such laughter and smiling reflect positive emotions (Strümpfer, 2006:163).

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Furthermore, positive emotions act as a means of restoring physiological resources that have been reduced by distress, encourage *cognitive broadening* and *cognitive flexibility* (such as creative thinking and problem-solving), enhance emotional well-being, and develop coping strategies for handling present and future difficulties. Positive emotions also facilitate social interaction, and promote social responsibility, generosity and helpfulness in social situations. In addition, positive emotions are associated with greater intrinsic motivation and they influence motivation by motivating people to maintain the positive state (Strümpfer, 2006).

According to Strümpfer (2006) the three variables or constructs that contribute to positive emotions are humour (laughter), optimism and gratitude. Humour and laughter constructs encourage positive feelings in one's life, as well as allowing one to move away from a distressing event.

Optimism allows a person to look positively towards the outcomes of his/her actions in the future. A person experiences gratitude when he/she recognises kindness and generosity from others, as well as from a higher power. Schneider proposed that a person can increase the frequency of positive emotions by appreciating the present, by classifying unclear and ambiguous events as subjectively positive rather than negative, and by thinking about opportunities as challenges and not problems (Strümpfer, 2006).

Tellegen used the term *positive emotionality*, which is a personality trait that forms the superstructure of positive emotional experiences. People high on the dimension of positive emotionality are described as showing characteristics such as friendliness, fondness for company, interest in others, warm-heartedness, happiness, joyfulness and enthusiasm. Furthermore the people who are high on positive emotionality also seem to perceive, think and act in ways that would lead to positive emotional experiences (Strümpfer, 2006).

### **19.3.3 Employee well-being**

Well-being is also applied in the work context (Turner, Barling and Zacharatos, 2002). Employee well-being entails, amongst other things, individuals' attitudes and feelings about themselves in relation to their work. There is a relationship between job satisfaction and general life satisfaction, which suggests that the interaction between job and life satisfaction is bidirectional. Life satisfaction and personal well-being have a prominent influence on job satisfaction and employee well-being, whilst employee well-being affects the broader experiences of

subjective well-being. Many factors will influence employee well-being, for example high involvement in work, as well as environmental determinants (job and non-job characteristics) and personality factors such as personality traits and negative and positive affectivity (Warr, 1996).

The *Wheel of Wellness* is a theoretical, interdisciplinary and holistic model that explores both well-being and prevention over the life span within several contexts, including the work context. The Wheel of Wellness incorporates theoretical concepts from psychology, anthropology, sociology, religion and education, as well as medical research. The model proposes:

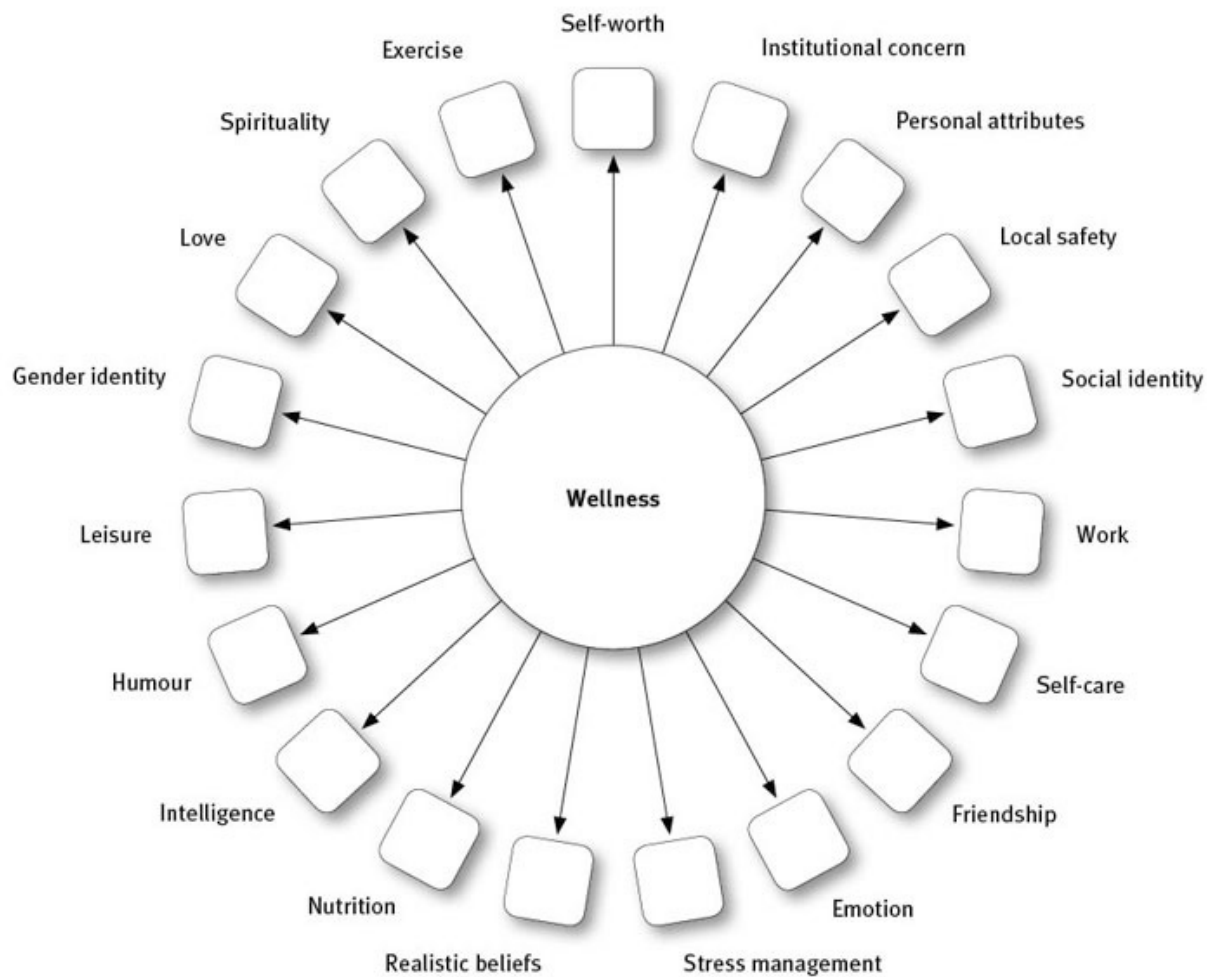
- that well-being consists of five primary functions and one superordinate function, “well-being”
- five life tasks, depicted in a wheel, which are interrelated, interconnected and relate to characteristics of healthy, optimal human functioning.

The *five life tasks*, based on Adlerian theory, pertain to areas of:

- essence or spirituality
- work and leisure
- friendship
- love
- self-direction.

Each life task can be further subdivided into specific subtasks. The life tasks interact dynamically with each other and a variety of life forces, including, but not limited to, an individual’s work context, family, community, religion, education, government, media and business /industry (Hattie, Myers and Sweeney, 2004).

The *Holistic Employee Wellness Model* contributes to a clearer understanding of the concept of employee well-being. It provides a systemic model of work well-being because it is based on an understanding of preceding, independent, moderating and antecedent variables that relate and contribute to the concept “work well-being” (Els and De la Rey, 2006). The Holistic Employee Wellness Model consists of 16 well-being factors and 3 contextual factors, as highlighted in Figure 19.3. The model aims to provide a more accurate assessment of employees’ levels of work well-being. Although the model does not ignore illness, the model primarily focuses on the positive elements of the illness-health continuum (Els and De la Rey, 2006).

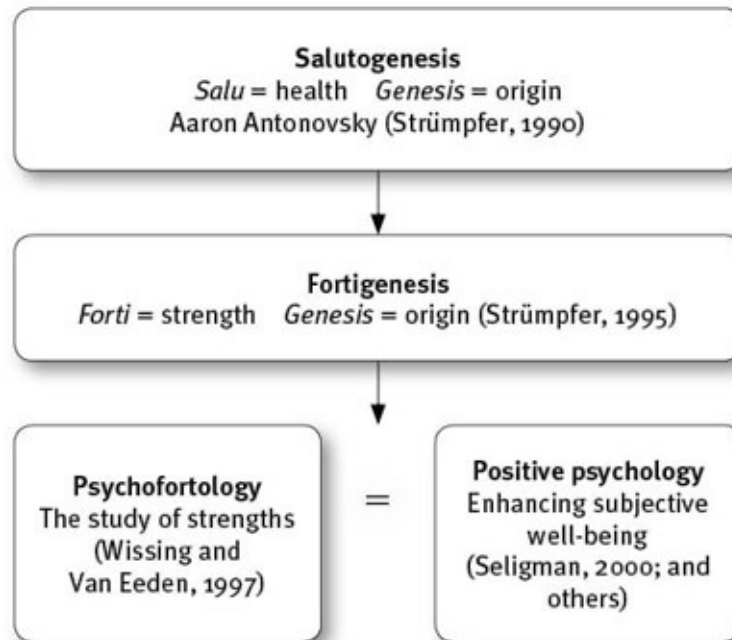


**Figure 19.3** The Holistic Employee Wellness Model.  
Source: Els and De La Rey (2006)

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## 19.4 STUDYING WELL-BEING: THE THREE MAIN DIRECTIONS OF RESEARCH

The study and promotion of well-being and positive emotions have been initiated and produced by three main directions of research: salutogenesis, fortigenesis and positive psychology. The development of these research areas is presented in Figure 19.4.



**Figure 19.4** The three main sources of knowledge used in the study and promotion of well-being.  
Source: Coetzee (2006)

### 19.4.1 Salutogenesis

Aaron Antonovsky, the founder of *salutogenesis*, introduced the concept based on the Latin word “*salus*” (meaning “health”) and the Greek word “*genesis*” (meaning “origins”). Thus, salutogenesis provides I-O psychologists with an understanding of the origins of health and well-being (Kossuth and Cilliers, in Strümpfer, 1990). Antonovsky’s approach to stress (which he considers part of human existence) and illness is salutogenic. Instead of asking, “Why do people get sick?”, he asks, “Why and how do people stay healthy in the face of stressful life events?” (Coetzee and Cilliers, 2001; Johnson, 2004). Similarly in a group or organisation one might ask, “What is working or what things are excellent?”, instead of highlighting mistakes only.

For Antonovsky, an even more important question is “How and where do people find the strengths to remain healthy and deal with these stressors?” Antonovsky researched this question by exploring the experiences of the poor, of African-American slaves, and of the survivors of concentration camps. These situations are more or less similar to particular experiences in Africa, for example those of poor people who provide for and raise families in difficult

conditions, and of people who live in squatter camps marked by poverty and very little access to basic human resources. How do they overcome stressors?

Antonovsky used the concept of a *generalised resistance resource* (GRR). A GRR is any characteristic of the person, group, subculture or society that facilitates the avoidance or combating of a wide variety of stressors (Strümpfer, 1995). GRRs can be categorised into:

- physical and biochemical resources, such as immuno-suppressors
- artefactual-material resources, such as money, food and shelter
- cognitive resources, such as intelligence and knowledge
- interpersonal or relational resources, such as social support and relationships with colleagues
- macro-sociocultural support, such as rituals and religion.

The abundant availability of GRRs for and within an individual will lead to a strong sense of coherence (events being more understandable, controllable and meaningful), as well as the experience of health and more encompassing well-being (Strümpfer, 1995).

Based on Antonovsky's work, Deo Strümpfer (1990) described three important implications of the salutogenic paradigm:

- Firstly, salutogenesis presents I-O psychologists with thinking beyond the dichotomy of people being either diseased or healthy, to the idea that people fall somewhere on a "health-disease" continuum (Strümpfer, 1990; Coetzee and Cilliers, 2001; Cilliers and Coetzee, 2003).
- Secondly, salutogenesis rejects the notion that stressors are inherently bad and cause distress, and focuses on the idea that stressors can have positive consequences leading to eustress (stress that is beneficial) if managed well (Strümpfer, 1995; Coetzee, Viviers and Wilson, 2005; Stone, 2005).
- Thirdly, I-O psychologists should study "deviant" cases, which will assist in understanding why, in the face of extremely difficult circumstances, people manage to stay healthy (Stone, 2005).

Salutogenic constructs are used to understand how people are able to cope with a state of omnipresent stressors in all spheres of daily life. Salutogenic constructs have as their primary concern the maintenance and enhancement of well-being, as well as the prevention and treatment of illness (Strümpfer, 1990). In the South African literature, whilst other related concepts are also studied, the following six salutogenic constructs have been studied quite extensively:

- sense of coherence (the core construct of the Salutogenesis Model)

- locus of control
- self-efficacy
- hardiness
- potency
- learned resourcefulness (Strümpfer, 1990; Coetzee and Cilliers, 2001; Cilliers and Coetzee, 2003).

### 19.4.2 Fortigenesis

Strümpfer argued for the broadening of salutogenesis to include the sources of strengths. He introduced the concept of *fortigenesis* – meaning the origins of psychological health and strength (Strümpfer, 1995; Coetzee and Cilliers, 2001; Rothmann, 2002). Two characteristics of fortological thinking can be distinguished (Rothman, 2002): benefit-finding and the emphasis on agency. *Benefit-finding* refers to the extent to which an individual finds something positive in a stressful experience in order to adjust during and after the stressful experience. These benefits or positive aspects include personal growth, a new perspective on life, and strengthening bonds with and support from others. The *emphasis on agency* refers to an individual's understanding and recognition that he/she can produce actions that lead to results.

Strümpfer (2003) expanded on fortigenic constructs by including other relevant constructs: engagement, meaningfulness, subjective well-being, positive emotions and proactive coping. The fact that these constructs also conceptualise positive human functioning, as proposed within positive psychology, is important.

### 19.4.3 Positive psychology

The aim of positive psychology is to change the focus of theory and practices in some fields of psychology from their primary preoccupation with disease and healing to well-being and the fostering of strengths and virtues (Coetzee and Cilliers, 2001; Compton, 2005). In South Africa the field of psychofortology was suggested by Marié Wissing and C. Van Eeden in 1997 to refer to the same study field as positive psychology (Rothmann, 2002; Stone, 2005; Strümpfer, 2005). However, based on existing literature, the American designation “positive psychology” is preferred.

Positive psychology consists of three broad dimensions on specific levels:

- On the *subjective level* positive psychology entails the study of subjective experiences and positive emotions in the past (well-being, contentment and

satisfaction), in the present (flow, joy, sensual pleasures and happiness) and for the future (optimism, hope and faith).

- On the *individual level* positive psychology entails the study of positive individual traits, in other words more enduring and persistent behaviour patterns in people across situations and time. These positive individual traits have historically been used to define character strengths and virtues. These individual traits include the capacity for love and vocation, courage, interpersonal skills, aesthetic sensibility, perseverance, forgiveness, future-mindedness and wisdom, to name but a few.
- On the *group or organisational level* positive psychology entails the development, creation and maintenance of positive institutions that encourage the development of positive experiences and traits in individuals. At the group or organisational level these positive experiences and traits include civic virtues and better citizenship (Seligman and Csikszentmihalyi, 2000; Petersen and Seligman, 2003; Compton, 2005; Seligman et al., 2005; Coetzee and Viviers, 2007).

#### **19.4.3.1 Historical and philosophical foundations of positive psychology**

Strümpfer (2003) states that the roots of the debate on pathogenesis and the strength paradigm can be traced back to the time of the ancient Greeks, when the god of medicine, Asklepios, focused on the treatment of the disease on hand, whilst the goddess Hygiea – daughter of the god of medicine – was the guardian of well-being, proposing the belief that people will remain well if they lead a life balanced by reason.

A focus on well-being can be traced back further in time to the even more ancient Chinese healers who considered their role as enhancing resilience and resistance, with health considered the natural order of things (Strümpfer, 2003). The understanding of well-being has also been informed by the teachings of Hinduism and Buddhism.

#### **19.4.3.2 Previous and current contributions to positive psychology**

This chapter does not deal extensively with an exploration of theorists who have contributed to the development of positive psychology, but rather takes a limited glimpse, as some of the theorists and some concepts have been discussed in other chapters. In 1789 the utilitarians were the intellectual forerunners of

subjective well-being, studying emotional, physical and mental pleasure, as well as the absence of pain. The early twentieth century marks the beginning of empirical studies about subjective well-being.

In 1925 John Carl Flugel studied people's moods by recording emotional events and outlining emotional reactions across time. After the Second World War, survey researchers polled people about their experience of happiness and life satisfaction by using simple global surveys, questionnaires and short scales. In these studies large numbers of people were selected in order to produce representative samples of nations.

Alfred Adler provided the idea of striving for superiority, which could be seen as a forerunner of ideas such as self-actualisation and self-efficacy. Furthermore, striving for superiority is linked to social interest and working for the common good (Strümpfer, 2005). According to Strümpfer (2005), much of Carl Jung's personality theory relates to fortigenic processes such as achieving individuation and self-realisation. Gordon Allport introduced a description of the mature personality marked by the principle of mastery and competence, constructs that are evident in subsequent theories of positive human functioning (Stone, 2005; Strümpfer, 2005). Gestalt psychology also made a contribution to the study of positive human functioning through postulating that the individual develops towards becoming a whole person by integrating cultural perceptions into that which is meaningful and distinct.

Humanistic psychology developed as a "third force" in reaction to the more deterministic views of human behaviour held by psychoanalysis and the behaviourists. Sanet Coetzee and Adriaan Viviers (2007) and Sebastiaan Rothmann (2002) proposed that the theorists of humanist psychology can be regarded as the founders of positive psychology. Abraham Maslow first used the term "positive psychology" in his book *Motivation and personality* (1954), in the last chapter, titled "Toward a Positive Psychology". Maslow also initiated the theory about self-actualisation and peak experiences, whilst Carl Rogers's contributions included the concepts of the *fully functioning person* and *self-actualising tendencies*, and Victor Frankl asserted that the primary force in life is an individual's striving to find meaning and purpose in life (Strümpfer, 2005).

Another influence came from the social-cognitive-learning theorists and the cognitive theorists, who stress *self-regulation* as a mechanism through which people can have more control over their influencing environment and their own behaviours. In this regard too, Julian Rotter's (1966) concept of *locus of control*, Albert Bandura's (1977a) concept of *self-efficacy*, and even M. Rosenbaum and

K. Ben-Ari's (1985) concept of *learned resourcefulness* have become part of the positive-psychological emphasis on resources that people can use to have more self-control. Cognitive psychologists also emphasise concepts such as *cognitive appraisal*, *cognitive control* and *cognitive redefinition*, which people use or which can be developed to achieve control and make events more manageable and predictable (Baldwin, 2005).

In 1969 Bandura concluded that pleasant and unpleasant affect are not merely opposites, but are somewhat independent and have different correlates. The implication of this finding is that if one does not experience a negative state, it does not necessarily imply that one experiences a positive state. This is a very important idea within positive psychology, implying that a positive state also needs to be developed and enhanced. Currently, positive psychology is growing rapidly, as is indicated by the prolific amount of research and books on aspects of it, such as subjective well-being and positive psychological assessment (Seligman and Csikszentmihalyi, 2000; Diener, Lucas and Oishi, 2002; Snyder and Lopez, 2003; Compton, 2005; Coetzee and Viviers, 2007).

It is clear then, that the constructs and concepts contributing to positive psychology are not necessarily new ideas, but are being revitalised through current theorising, research and practice. However, the contributions from the different authors often remained isolated from each other in that there is a lack of a shared identity in the language used. In addition, regardless of these theorists' efforts to also focus on the positive aspects of human functioning, psychologists primarily focused on the assessment and treatment of pathos (suffering).

Based on the need for an integrated positive psychology Martin Seligman publicly launched positive psychology in 1998. Subsequently the field of positive psychology developed rapidly internationally and nationally through the contributions of numerous researchers, the hosting of conferences, scholarly publications, the establishment of positive-psychology centres at universities, and active websites and list servers (Coetzee and Viviers, 2007).



**Figure 19.5** Martin Seligman meeting the Dalai Lama.

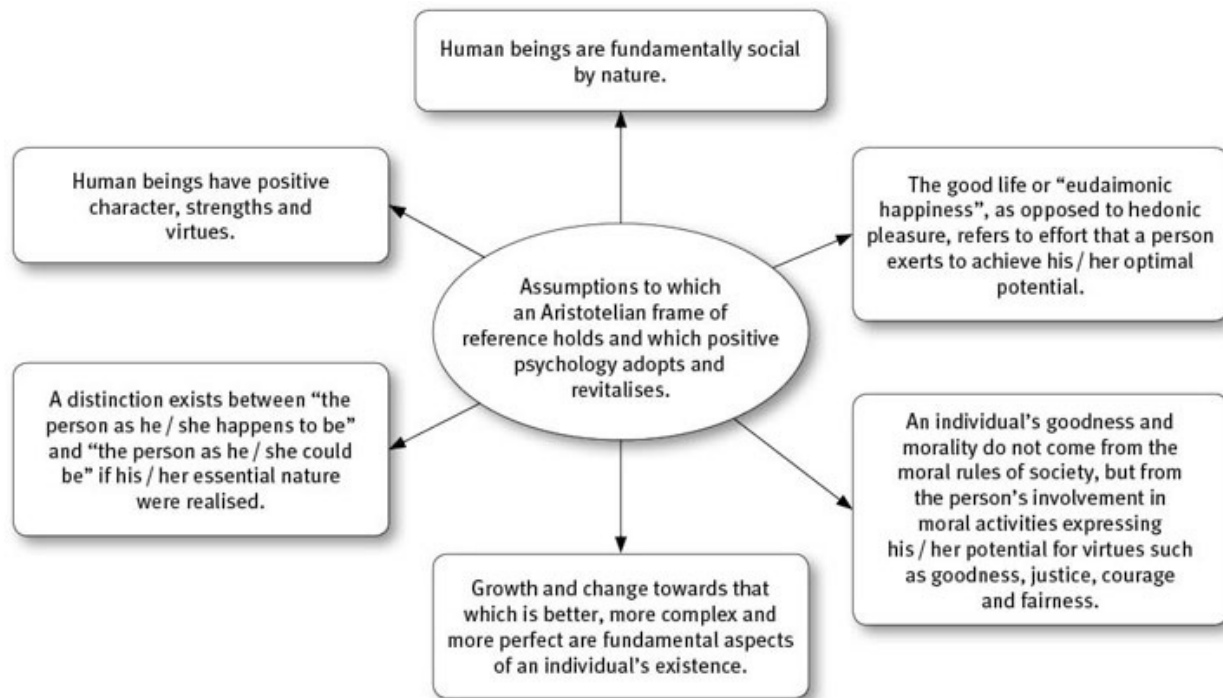
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### **19.4.3.3 The basic themes and assumptions of positive psychology**

The field of positive psychology has as its purpose the achievement of scientific understanding of optimal human functioning, and the use of effective interventions to develop and enhance thriving individuals, families, organisations, communities, and perhaps even countries. The field does not focus on virtues and strengths that help individuals and communities only to endure and survive, it also focuses on virtues and strengths that help them to flourish (Seligman and Csikszentmihalyi, 2000). This will probably be achieved by the use and enhancement of existing ideas and research to build a cumulative, empirical body of research to ground ideas about well-being, health and positive psychological functioning in individuals, groups, communities and organisations (Seligman and Csikszentmihalyi, 2000). Through positive psychology, psychologists can ensure optimal human functioning by acknowledging strengths as well as deficiencies, environmental resources and stressors (Wright

and Lopez, 2002).

There are different approaches to positive psychology, but common to all these approaches is the assumption that human beings have the potential for positive experiences and positive character or virtues (Jørgensen and Nafstad, 2004). Positive psychology adopts and revitalises an Aristotelian frame of reference (Jorgenson and Nagstad, 2004), which holds to the assumptions shown in Figure 19.6.



**Figure 19.6** The assumptions (as discussed by Strümpfer, 2003) to which an Aristotelian frame of reference holds and which positive psychology adopts and revitalises.

One of the conceptual cornerstones of positive psychology is the concept of *good character* or *virtue* – positive personal traits. Positive psychology studies subjective well-being on the individual level by studying positive individual traits, which include virtues and strengths such as courage, originality and wisdom. On the group level the focus is on civic virtues and the organisations that encourage individuals to display virtues such as citizenship, responsibility, tolerance and a work ethic, to name a few (Seligman and Csikszentmihalyi, 2000; Seligman, 2002).

### **Emphasising the purpose of positive psychology**

The message of the positive psychology movement is that psychology is not just the study of disease, weakness and damage, it also is the study of strength and virtue. Treatment is not just fixing what is wrong, it also is building what is right. Psychology is not just about illness or health, it also is about work, education, insight, love, growth and play. And in this quest for what is best, positive psychology does not rely on wishful thinking, self-deception or hand-waving. Instead it tries to adapt what is best in the scientific method to the unique problems that human behaviour presents in all its complexity (Seligman, 2002:4).

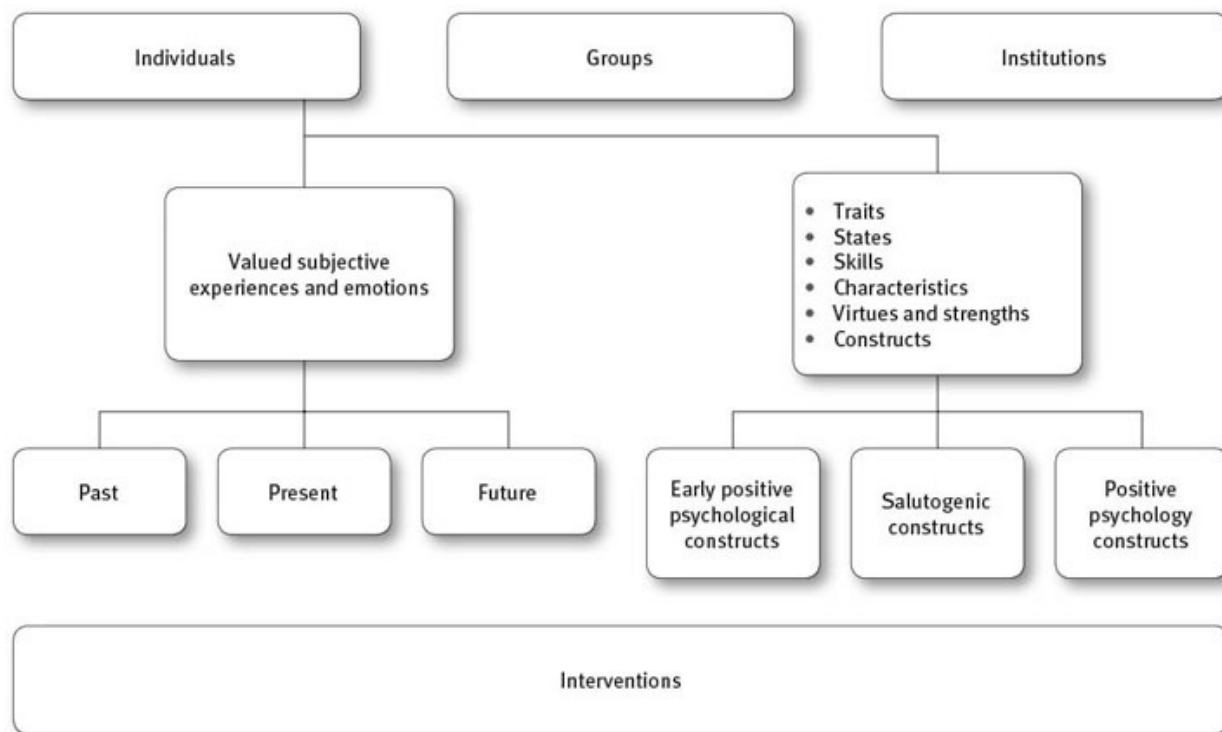
Central concepts in positive psychology that have been derived from Aristotelian assumptions via Gestalt psychology include cultivation, complexity and optimal functioning (Jørgensen and Nafstad, 2004). The good life is also a central concept and an underlying principle of psychological well-being and physical health. The good life or eudaimonic happiness is a complex concept associated with the cultivation and development of virtues through moral activities. The eudaimonic approach is most associated with fulfilling one's true nature and finding one's true self. *The good life or eudaimonic happiness* is defined as optimal functioning and experience where the individual strives for perfection that represents the realisation of his/her true potential. An individual's realisation of his/her true potential or optimal functioning occurs through effort, and can be evaluated and measured against objective standards (Compton, 2005).

In his contribution to defining optimal functioning, Werner, in the terms of Gestalt psychology, proposes that individuals strive for *psychological integration*. As cognitive, affective and social beings, people all go through a common developmental process of growing towards what is better, more precise or perfect. Thus, the good life as part of well-being and good health is characterised by the development towards optimal functioning (Compton, 2005).

## **19.5 CONSTRUCTS USED TO DESCRIBE WELL-BEING**

This section deals with constructs that can be utilised to enhance individuals' valued subjective experiences and positive emotions, as well as dealing with

other constructs that have been prevalent in South African research, with specific reference to the salutogenesis and fortigenesis. Many of these positive-psychological constructs have been researched with the purpose of defining the constructs and constructing appropriate measures to assess them (Snyder and Lopez, 2003). Based on their overview of South African and international literature, Coetzee and Viviers (2007) propose a framework that can be used to categorise the research done about positive psychological constructs in South Africa. This framework categorises constructs as related to individuals, groups and organisations. Then a distinction is made between subjective experiences and emotions on the one hand, and positive individual traits, states, skills, characteristics, virtues and strengths on the other hand. Positive individual traits, states, skills, characteristics, virtues and strengths are divided into early psychological constructs, salutogenic constructs, and more recently introduced positive-psychology constructs (Coetzee and Viviers, 2007:480). Based on this framework (see Figure 19.7) the constructs discussed in this chapter are linked to subjective experiences and emotions (past, present and future), the importance of virtues in diagnoses, and the constructs studied within salutogenesis and fortigenesis.



**Figure 19.7** An overview of the different categories of constructs studied within positive psychology.  
Source: Coetzee and Viviers (2007)

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### 19.5.1 Happiness

In exploring the good life, one must ask what the role of positive mental states is in the day-to-day activities of people. *Eudaimonic happiness*, or the good life, is subjectively experienced, and can be defined as having the presence of pleasure and the absence of pain. Aristotle distinguished between the pleasurable life and the good life. The *pleasurable life*, hedonism, refers to simple hedonic pleasure subjectively experienced by the individual, which concerns the avoidance of pain and the attainment of pleasure (Strümpfer, 2003). The *good life* or eudaimonic happiness focuses on the optimal experience and functioning of an individual in all spheres of life.

*Eudaimonia* is a construct describing optimal experiences or happiness that incorporates aspects of experiences beyond enjoyment. Eudaimonia consists of intrinsic motivation, particularly flow (which is a more specific type of intrinsic motivation), as well as close interpersonal relationships in different spheres of life.



**Figure 19.8**      Happiness is ...

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### 19.5.2 Hope and optimism

Individuals have hope when they expect the best in the future and work towards achieving the best. They are hopeful and optimistic that a good future is something that can be brought about by their sensible actions. Seligman and Csikszentmihalyi (2000) state that individuals high in optimism experience better moods, seem to be more persevering and successful, and experience better physical health. However, expectations of hope and optimism should not be illusory or unrealistic. Individuals need to contribute by making sensible plans to ensure that their endeavours succeed. Thus, *hope* and *optimism* refer to an individual's future-mindedness and future orientation about the successful outcome of his/her endeavours (Peterson and Seligman, 2003).

### 19.5.3 Virtues

The six overarching *virtues* are core human characteristics valued by moral philosophers (such as Socrates, Plato and Aristotle), by religious thinkers, and by almost every culture across the world (Peterson and Seligman, 2003). *Character strengths* embedded in personality traits are considered as distinguishable routes for achieving the virtues. *Enabling themes* are the factors and conditions that allow for the development and enhancement of particular character strengths and, in so doing, contribute to virtues. *Signature strengths* which are associated with particular virtues are defined as those personal traits that an individual uses daily in the main areas of his/her life in order to experience gratification and authentic happiness (Peterson and Peterson, 2003; Carr, 2004).

Six virtues (wisdom, courage, humanity, justice, temperance and transcendence) and 24 character strengths are used in the Values in Action (VIA) Classification System to determine the individual's level of well-being (Carr, 2004; Peterson and Seligman, 2004):

- *Wisdom* refers to cognitive strengths that involve the acquisition of and use of knowledge. Character strengths include: creativity, curiosity, active open-mindedness, love of learning, seeing things in perspective (seeing the big picture), and personal, social and emotional intelligence, as well as wisdom.
- *Courage* refers to a person's emotional strengths that allow the exercise of will to accomplish goals in the face of internal and external obstacles. Character strengths include: bravery, vitality, perseverance, industry, diligence in accomplishing goals, and honesty, authenticity, integrity and

genuineness when dealing with internal and external obstacles.

- *Humanity* (or love) refers to a person's interpersonal strengths that involve others in all contexts of existence. Character strengths include: intimate attachments with others through the capacity to love and be loved, and kindness and generosity towards others.
- *Justice* refers to civic strengths that underlie healthy community life. Character strengths include: citizenship and loyalty towards teams, and the ability to engage in teamwork, ensuring fairness, equity and justice when dealing with others, and the willingness to take up leadership within a group, organisation or community.
- *Temperance* affords individuals access to strengths that protect them against excesses within all contexts of existence. Character strengths include: forgiveness and mercy expressed towards others, modesty and humility, being prudent and careful when making choices, and regulating one's action by being disciplined.
- *Transcendence* entails strengths that allow one to form connections to the larger universe and make meaning of one's existence. Character strengths include: the appreciation of beauty and excellence; having gratitude, being hopeful and optimistic about the future, being spiritual and having a sense of purpose, as well as finding and believing in the meaning of life (Carr 2004; Peterson and Seligman, 2004).

#### 19.5.4 Constructs associated with salutogenesis

Positive psychology also uses salutogenic constructs to study optimal functioning. According to Strümpfer (1995), the construct *sense of coherence* (SOC), introduced by Antonovsky, underpins the Salutogenic Model. SOC is not a state, but rather an internal dispositional trait or orientation, describing the extent to which one has a pervasive and enduring though dynamic feeling of confidence that one's environment is predictable, and that things will work out as expected. SOC is made up of three core components:

- *comprehensibility* (The stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable.)
- *manageability* (Resources are perceived to be available so one can meet the demands posed by these stimuli.)
- *meaningfulness* (The demands in the environment are challenges worthy of investment and engagement.) (Antonovsky, 1987, cited in Strümpfer, 1990;

Coetzee and Cilliers, 2001; Kossuth and Cilliers, 2002).

Given that most adults spend most of their time in the work context, it follows that work provides them with external and internal stimulation that must be comprehended, managed and made meaningful (Strümpfer, 1990). Researchers indicate that people tend to experience higher job-satisfaction when they have a strong SOC, because SOC enables people to do the following tasks:

- make cognitive sense of the workplace and perceive its stimulation as clear, structured, consistent and predictable information
- perceive their work as consisting of experiences that are bearable, with which they can cope, and of challenges which they can meet by availing themselves of their personal resources and/or resources under the control of legitimate others (for example subordinates, co-workers, the supervisor or manager, or the union)
- make emotional and motivational sense of work demands, as welcome challenges, worthy of engaging with and investing their energies in (Strümpfer, 1990:270; Strümpfer, 2003:72).

As well as focusing on a sense of coherence, South African research has extensively covered the salutogenic constructs of locus of control, self-efficacy, hardiness, potency and learned resourcefulness (Strümpfer, 1990; Coetzee and Cilliers, 2001; Cilliers and Coetzee, 2003).

*Locus of control*, proposed by Rotter, refers to one's beliefs about the causes of events and one's own attributions or responsibilities towards the consequences of events and actions. People with an internal locus of control (*internals*) believe that one's own behaviour has a direct influence on subsequent events. In contrast, *externals* attribute the outcomes of events or actions to fate or circumstances outside their own control.

*Self-efficacy*, proposed by Bandura, entails that an individual should believe that he/she can successfully perform the behaviour required for a specific task.

### **Employees with a high and low sense of coherence**

Coetzee (2006) provided a description of employees with a high sense of coherence:

- They will display an underlying confidence that things will work out, that the confusing will become comprehensible, and that they have the resources to cope.

- They will make sense of the nature and dimensions of a problem by asking the following questions:
  - “Does the problem involve only me or others as well?”
  - “Is it similar to problems that I have been confronted with previously?”
  - “Will it intensify or lose its force?”
- They will show a readiness and willingness to exploit the resources that they have at their potential disposal. The use of these resources means they are not likely to feel overwhelmed by the demands made on them, and that they will cope better.
- They cope more successfully with the adverse effects of the work context.
- Their well-being is less affected by the quality of social relations.
- They experience salutary outcomes from work demands and career rewards.
- They are more likely to experience job satisfaction.

Coetzee (2006) also described employees with a low sense of coherence:

- They experience things as inexplicable, as not understandable, as unpredictable and as disorder or chaos.
- They experience life as unfortunate events that happen to them, and feel unfairly victimised. They are likely to react helplessly and to display helplessness. They will feel that nothing in life matters much.
- They are more likely to blame someone or something else, and they are unsure of their own competence.

Susan Kobasa proposed *hardiness* as a global personality construct, which moderates stress-health relationships (Strümpfer, 1990). Hardiness consists of three components:

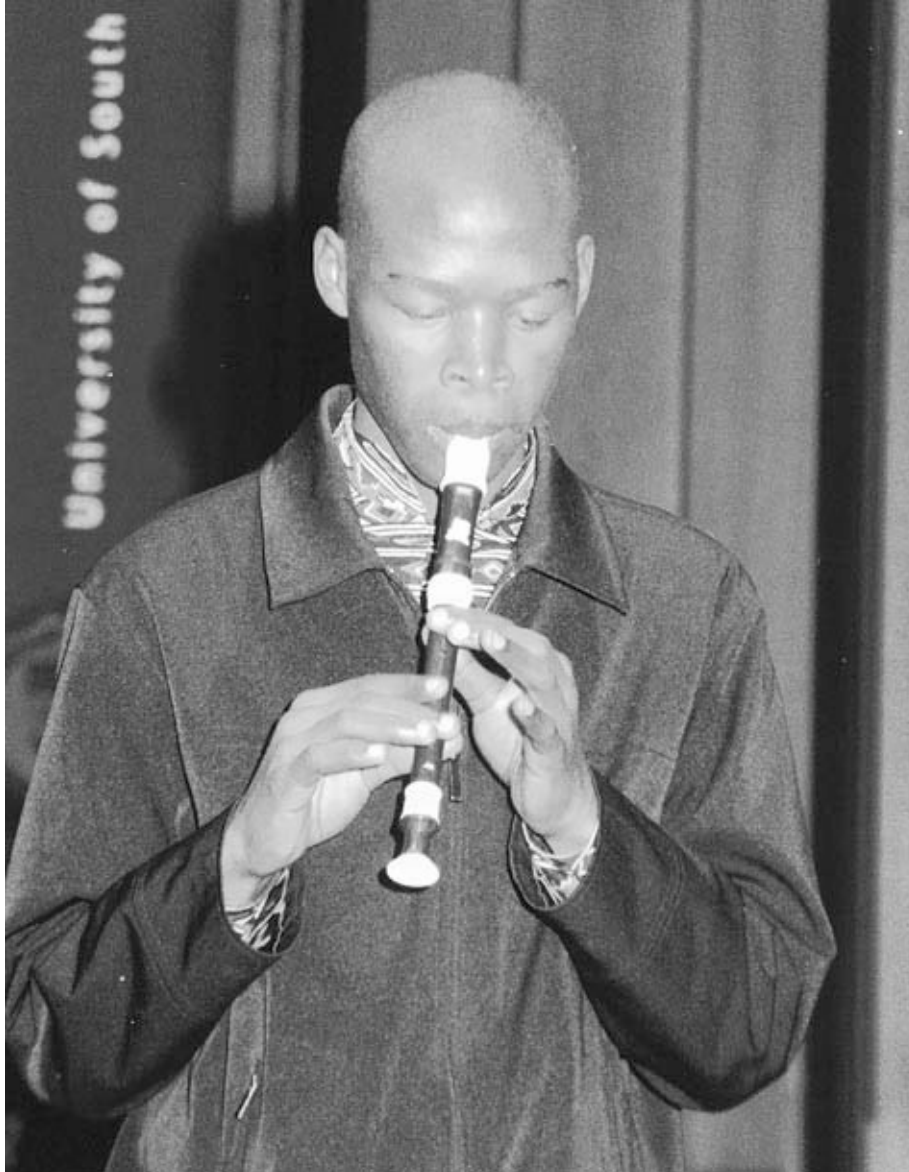
- an individual's commitment to or involvement in whatever he/she is doing
- an individual's control or influence over the events in his/her life
- an individual's perception of change as an opportunity for development, rather than as a threat.

*Potency*, coined by Zeev Ben-Sira, refers to an individual's enduring confidence

in his/her capacities resulting from his/her successful coping experiences in the past, as well as seeing the world as ordered, predictable and meaningful (Strümpfer, 1990; Coetzee and Cilliers, 2001).

*Learned resourcefulness*, introduced by Rosenbaum, entails an individual's learned behaviours and skills that are used to self-regulate or control his/her behaviour. Learned resourcefulness is a personality repertoire consisting of mainly three functions:

- *regressive self-control* (the regulation of internal responses – emotions and cognitions – which would have interfered with the successful completion of tasks)
- *reformative self-control* (the changing of current behaviour through planning skills, problem-solving strategies, and the delay of immediate gratification, in order to achieve a reward in the future)
- *experiential self-control* (the enjoyment of unknown and pleasurable activities to the fullest) (Coetzee and Cilliers, 2001).



**Figure 19.9** Engagement.

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### 19.5.5 Constructs associated with fortigenesis

Positive psychology also uses fortigenesis to study optimal functioning by emphasising engagement, meaningfulness, subjective well-being, positive emotions and proactive coping. Subjective well-being and positive emotions are discussed in section 19.3.

The construct engagement is the opposite of the work dysfunction termed “burnout”. *Engagement* is a positive, fulfilling, work-related, affective-cognitive

state that is persistent, pervasive and characterised by:

- *vigour* (high levels of energy, mental resilience, the willingness to invest effort in one's work and persistence in the face of difficulty)
- *dedication* (a sense of significance, enthusiasm, pride and challenge)
- *absorption* (being fully concentrated and deeply engrossed in one's work) (Strümpfer 2003:70).

*Meaningfulness* is experienced when situations and experiences are perceived as motivationally relevant, in the form of desired challenges that are worth engaging with and investing oneself in (Strümpfer, 2003:71). Research about meaning in the workplace has identified meaning-destroying and meaning-providing variables which are linked to the nature of one's goals and the importance of intrinsic and extrinsic values. *Meaning-destroying variables* such as extrinsic values, expectancies for financial success, appealing appearance and social recognition have been linked to physical symptoms of illness, depression and anxiety. *Meaning-providing variables* such as intrinsic values, expectancies for physical fitness, self-acceptance, affiliation with others and a community feeling have been linked to the experience of well-being (Strümpfer, 2003).

*Coping* involves activities undertaken to master, tolerate, reduce or minimise environmental or intrapsychic demands perceived to represent threats, existing harm or losses (Strümpfer, 2003:73). Coping can take many forms. *Anticipatory coping* involves preparation for a stressful event that will probably occur, such as writing an examination to complete a course. *Proactive coping* refers to the accumulation of resources and acquisition of skills to deal with future stressors and stressful events that one knows do generally occur.

## 19.6 IMPLICATIONS FOR ASSESSMENT AND DIAGNOSIS OF WELL-BEING

Positive psychology proposes that psychologists should focus on the cultivation of individuals' strengths and virtues through ongoing processes of education and habituation. Most people enjoy exercising their capabilities and this will probably lead to growth and change. Positive psychology holds that psychologists have to include human strengths and environmental resources when diagnosing, treating and researching human behaviour (Wright and Lopez, 2002). This position is contrary to the assertions used when diagnosis occurs according to traditional systems, such as the *Diagnostic and Statistical Manual (DSM)*, which is primarily based on illness symptoms, illness history and clinical

behaviours as observed by psychologists (Wright and Lopez, 2002). In order to form a holistic understanding of an individual's functioning, psychologists, in diagnosing, treating and researching human behaviour, should also use the positive aspects of human functioning.

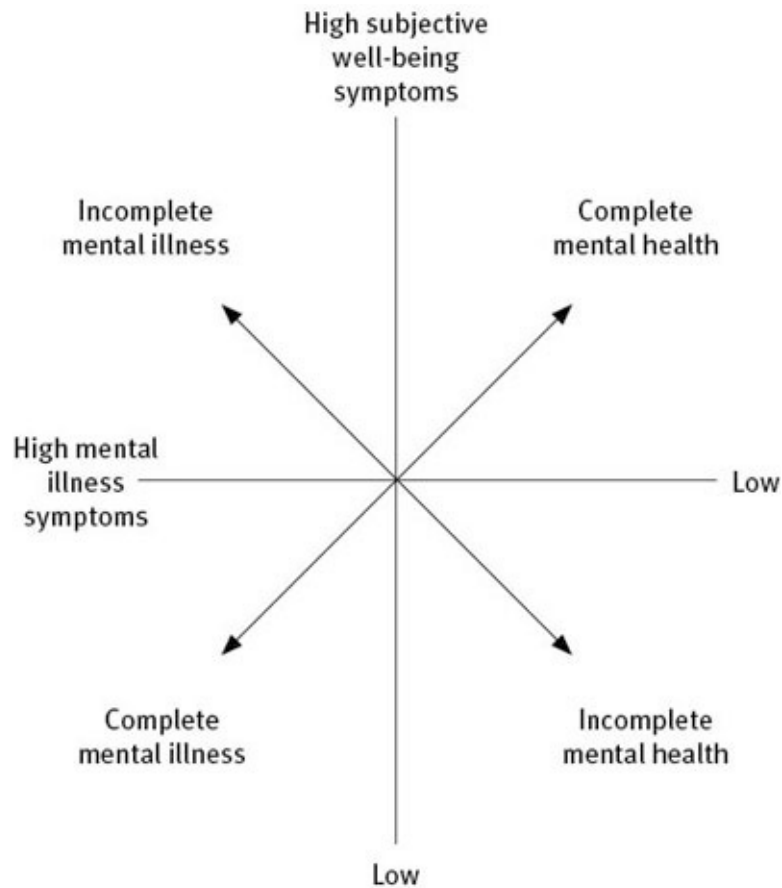
In reaction to diagnostic systems such as the *DSM*, theorists with a positive-psychological orientation have begun to develop diagnostic systems that can be used in the diagnosis of positive human functioning. It is envisaged that these systems will be verified by research and used in association with other information to diagnose and enhance optimal human functioning. The use of both types of system will hopefully provide a balanced view in the assessment and treatment of troubled individuals, and the promotion of health for many people.

### **19.6.1 The Values-In-Action Classification System**

Peterson and Seligman (2003) developed the Values-In-Action (VIA) Classification System using lessons from the *DSM*. The VIA Classification System is a multi-axial classification, the purpose of which is to think about, name and measure strengths in order to emphasise the domains of human excellence. The six virtues of wisdom, courage, humanity, justice, temperance and transcendence have been included in the VIA Classification System. In addition, 24 character strengths and less abstract personality traits are also associated with the 6 virtues of the VIA Classification System as distinguishable routes for achieving the virtues that have been identified. These 24 character strengths can be assessed with the Values-In-Action Inventory of Strengths (VIA-IS), a 240-item self-report questionnaire to determine an individual's signature strengths. *Signature strengths* are those personal traits associated with particular virtues defined in the VIA-IS on which an individual obtains particularly high scores (Seligman and Peterson, 2003; Carr, 2004).

### **19.6.2 Mental health diagnosed positively**

Corey Keyes and Joseph G. Grzywacz (2005) propose a shift in the focus on mental health from viewing health as the absence of illness to health as a complete state and more than the mere absence of illness or infirmity. In order to diagnose the mental health of individuals, Corey Keyes and Shane J. Lopez (2002) present a Complete State Model, which consists of mental health and mental illness (see Figure 19.10).



**Figure 19.10** The Complete State Model of mental health and mental illness.  
Source: Keyes and Lopez (2002).

Through this model, mental health is defined as a complete state consisting of:

- the absence of mental illness (or psychopathological disorders)
- the presence of a high-level of well-being.

According to this model:

- *complete mental health* is a syndrome that combines the symptoms of high levels of emotional, psychological and social well-being, as well as the absence of recent mental illness
- *mental illness* is a syndrome that combines the symptoms of low levels of emotional, psychological and social well-being, as well as the diagnosis of a recent mental illness (Keyes and Lopez, 2002).

Keyes and Lopez (2002:51) go on to cite Neimeyer and Raskin's question, which asks how I-O psychologists can conceptualise an employee's struggles in a way that is therapeutically useful and still communicate intelligibly with

colleagues and relevant stakeholders, for example, managers and other involved parties.

### 19.6.2.1 Diagnostic categories

The diagnosis of states of mental health was modelled after the DSM-III-Revised approach to diagnosing a major depressive episode (Keyes, 2005). Based on the Complete State Model, a person can be diagnosed as follows:

- *flourishing* (a condition in which a person has no psychological disorder and high levels of subjective well-being)
- *languishing* (a condition in which an individual has no mental illness and low levels of well-being)
- *struggling* (a condition in which a person has been diagnosed with a psychological disorder but has high levels of subjective well-being)
- *floundering* (a condition in which a person is floundering in different spheres of life, has been diagnosed with a psychological disorder, and has low levels of subjective well-being).

### **DSM and VIA: meaningful integration shaded by many misconceptions?**

At this stage it seems as if the two diagnostic systems (DSM and VIA) work from different vantage points and towards different goals, or perhaps a meaningful integration is shaded by many misconceptions on both sides. However, future research might bring about an integrative approach that is suited to the assessment of healthy and less-healthy people, and instrumental in developing human potential in all people, but which will also address perennial problems in well-being.

The above-mentioned VIA-diagnostic criteria and the validity of diagnoses require much further research, which should also determine additional criteria of mental health (for example, a duration criterion), explore other models of mental health, and investigate the validity of diagnoses against expert evaluations (Keyes, 2005).

However, when I-O psychologists and human resources practitioners use well-being approaches and not just a problem-oriented view, they have a strategy to provide employees with

opportunities to develop and enhance positive experiences and, in so doing, they develop and enhance human excellence.

## 19.7 IMPLICATIONS FOR HEALTH PROMOTION IN ORGANISATIONS

In organisations, employee well-being has direct and indirect effects. Although more research is required, it has been proposed that the causal relationship between employee well-being and positive outcomes of business is bidirectional. In other words, productivity enhances employees' feelings of well-being (competence, mastery and usefulness), whilst employee well-being will enhance productivity (Warr, 1996). In contrast, low levels of employee well-being and health can have a tremendous impact on the financial health and profitability of an organisation (Danna and Griffin, 1999). Such a negative outcome can result from direct and indirect financial costs arising from:

- the low levels of employee well-being and health
- maladaptive behaviour and physical and psychological disorders of employees.

The financial cost to an organisation includes:

- the costs associated with lost productivity, absenteeism and turnover
- the indirect cost of workplace accidents owing to loss of production and efficiency
- medical-aid costs
- the cost of lawsuits (Danna and Griffin, 1999).

Furthermore, thinking should shift from focusing merely on reducing illness and psychological disorders to increasing subjective well-being. This shift in thinking requires the development of policies about health-promotion programmes that reduce mental illness and enhance subjective and physical well-being (Keyes and Grzywacz, 2005). Whilst many health-promotion programmes are utilised in workplaces, positive psychology supports a shift in the underlying assumption facilitating the implementation of these programmes. The I-O psychologist should not just ask: "How can we keep people healthy and prevent them from engaging in non-healthy activities?" The I-O psychologist also needs to ask, and more vehemently: "How can we enhance and develop the employee's existing strengths?"

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## Personal exploration

Complete the following measurement scales to determine your subjective well-being, your satisfaction with life (partial), and your subjective happiness (partial).

1. Which face comes closest to expressing how you feel about your life as a whole?



Source: Andrews and Withey (1976), in Compton (2005)

2. a)

In most ways my life is ideal.

Strongly disagree    1   2   3   4   5   6   7   Strongly agree

- b) I am satisfied with my life.

Strongly disagree    1   2   3   4   5   6   7   Strongly agree

Source: Diener, Emmons, Larsden and Griffin (1985), in Compton (2005)

3. a)

Compared to most of my peers, I consider myself:

Less happy            1   2   3   4   5   6   7   More happy

- b) Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterisation describe you?

Not at all            1   2   3   4   5   6   7   A great deal

Source: Lyubormirsky and Lepper (1999), in Compton (2005)

What do your answers suggest about your subjective well-being? Based on this, how will you go about enhancing your subjective well-being?

### **19.7.1 Interventions for developing and enhancing employee and organisational well-being**

Seligman *et al.* (2005; 410) state that positive interventions can supplement traditional interventions that relieve suffering and may someday be the practical legacy of positive psychology. The framework (see [Figure 19.7](#)) proposed by Coetzee and Viviers (2007) emphasises positive psychology interventions on individual, group and organisational levels to facilitate employee and organisational well-being. There are several individual strategies that can be used to enhance employees' subjective well-being and positive emotions. Researchers have shown that diverse exercises such as expressing gratitude, savoring experiences, using strengths, increasing optimism, and practicing kindness all demonstrate the potential to boost an individual's level of wellness (Gable, Reis, Impett and Asher, 2004; Schueller, 2011, 2010; Seligman et al., 2005). In the personal development box a few exercises are provided in order for you to use to increase your well-being.

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## **Personal development**

Please do some of the following exercises used as interventions in positive psychology:

*Active-constructive responding exercise:* Respond to good news that someone shares with you with genuine happiness and displays of excitement, as well as active questioning about the event (an active-constructive response).

*Value of the exercise:* By doing this you enhance the influence of the positive event for yourself and the other person by encouraging retelling and re-experiencing. Thus, the exercise is strongly linked to relationship satisfaction and individual well-being (Gable et al., 2004; Schueller, 2011).

*Blessings exercise:* At the end of each day write down 3 things that went well on that day and why they went well.

*Value of the exercise:* Reflecting on good experiences and positive moments in a grateful nature can overcome the effects of daily stressful events and increases your awareness of good moments that might have gone unnoticed enhancing your experience of wellness (Schueller, 2011; Seligman et al., 2005).

*Gratitude visit exercise:* Write a gratitude letter to someone who you never thanked properly. Then go to this person and read the gratitude letter to him/her (Seligman, 2002).

*Value of the exercise:* This gratitude visit exercise promotes gratitude and increases individuals positive emotions and happiness (Schueller, 2011; Seligman et al., 2005).

*Life summary exercise:* Write a short description of how you would like your life relayed to your grandchildren. A few days after writing the summary, you should review the summary to reflect on what is missing in your life, and what changes might be necessary to ensure this summary could be achieved.

*Value of exercise:* In positive psychotherapy, this exercise work towards decreasing depressive symptoms and increase well-being

(Schueller, 2011).

*Savouring exercise:* Reflect each day for at least 2-3 minutes on 2 pleasurable experiences and to make the pleasure last as long as possible. This aims to increase savouring or an attempt to intensify or elongate the positive emotions of an experience through focused attention on the present moment (Bryant and Veroff, 2007).

*Value of the exercise:* This exercise is also used in positive psychotherapy (Schueller, 2011).

*Strengths exercise:* Identify and list your 5 highest strengths on a sheet of paper. Paste this list of your 5 highest strengths where you can see it every day. Each day, find a new way to use 1 of the 5 identified strengths.

*Value of exercise:* Use of signature strengths has led to boosts in well-being and decreases in depressive symptoms (Schueller, 2011; Seligman et al., 2005).

In order to develop and enhance the well-being of employees, interventions need to develop and enhance well-being constructs within the individual, as well as create an appropriate interpersonal, group and organisational environment. According to Compton (2005), by focusing on positive emotions, virtues and strengths I-O psychologists can assist people and enhance their quality of life. Interventions for the individual include positive therapy and counselling that focuses more on the individual's strengths, capacities for problem-solving and demonstrated competencies and constructs (Compton, 2005).

There are several training programmes available to develop constructs within individuals in many settings, such as the work context and educational settings. An assumption of all interventions on both individual and group levels is that by increasing the frequency of positive emotions, the experience of happiness will increase. Programmes, primarily based on cognitive-behavioural programmes, focus on increasing positive emotions and life satisfaction through *cognitive retraining*. This points out the irrational or impossible beliefs that reduce happiness, and it encourages beliefs that cultivate more lasting happiness (Compton, 2005). For example, a person may believe that, "In order for me to be happy, everyone who meets me must like me." Through cognitive retraining this

belief could be replaced by the belief, “I would like people who are close to me to like me.”

The training programme for learned optimism involves a process of disputing pessimistic thoughts and increasing hope and optimism by using the ABCDE Model. This model is also used in happiness training. C.R. Snyder, Diane McDermott, William Cook and Michael A. Rapoff designed a narrative approach to develop learned hopefulness in children by teaching them to include hopeful themes in the stories that they write. Programmes focusing on teaching learners about positive values and virtues can also be implemented in the work context. Do you remember the “Heartlines” series and advertisements screened by the South African Broadcasting Corporation, which aimed at teaching virtues and values to the South African public?

Positive emotions, such as happiness and optimism, can be developed and enhanced through relaxation strategies such as meditation, positive imagery, massage and muscle relaxation. Everyday pleasurable activities, such as laughter, talking to a friend, and listening to music also enhance positive emotions. Several researchers have found that participating in physical exercise will result in positive emotions.

Through training programmes, such as growth group experiences, employees’ self-actualisation can be developed, whilst skills training for groups can include problem-solving, conflict management, communication and assertive behaviour (Coetzee, 2006). Team-building enhances employee well-being by developing the social networks amongst employees. It also allows for companionship between employees, and encourages employees to see each other as resources in the work context (Compton, 2005).

The Fortigenesis Model also makes reference to activities such as psycho-educational programmes, the power of standing still, restorative places, flow activities, interpersonal flourishing and Balint groups that can be used to develop and enhance employees’ strengths. The *power of standing still* and *restorative places* refer to spending time on reflection and mindfulness so that employees can be aware of and use their strengths to deal with difficulties in the work context. The term *flow activities* refers to employees’ awareness of the activities they like and encourages the maintenance of high levels of involvement in these activities. *Interpersonal flourishing* and *Balint groups* indicate the need for positive relationships with others as a means of support for dealing with the many challenges in the work context (Strümpfer, 2003). Once again, it is important to notice how well-being is developed, maintained and enhanced

through interventions on an individual and group level. However, interventions on an organisational level are also very important (Coetzee and Viviers, 2007).

Employees experiencing high levels of well-being and positive emotions have a greater ability to deal with various stressors at work, have higher levels of job satisfaction, display positive interpersonal relationships in the work context and make greater contributions to organisational effectiveness. Job satisfaction and, eventually, the well-being of employees are maintained and enhanced through positive work environments. According to Compton (2005) the ten qualities of positive work environments are:

- opportunity for personal control
- opportunity for skill use
- reasonable externally generated goals
- variety
- environmental clarity
- availability of money
- physical security
- opportunity for interpersonal contact
- valued social position
- supportive supervision.

I-O psychologists should remain involved in developing and enhancing these aspects of organisations. All these aspects ensure that employees are engaged with the demands of the job and with others in the work context, which improves job satisfaction and overall organisational effectiveness.

## **19.8 SUMMARY AND CONCLUSION**

In this chapter, psychological well-being, including employee well-being, is discussed using a positive stance. Positive psychology, salutogenesis and fortigenesis, as well as related constructs, are introduced as approaches to obtaining knowledge on subjective well-being, positive emotions and optimal functioning. Well-being or the positive-psychology approach is based on long-standing ideas, yet many disciplines of psychology favoured a negative or problem-oriented approach to assessment and other interventions with people. The renewed emphasis on the positive aspects of human functioning and well-being is aimed at a more balanced approach.

The Values-In-Action Classification System and the Complete State Model, based on certain aspects of the DSM-III-Revised and new research, assist I-O

psychologists to diagnose human strengths. These systems, in reaction to the pathogenic paradigm followed in mental health, join the strength paradigm and positive psychology to emphasise the positive side of human functioning. This leads to interventions to ensure positive human functioning and the fostering of excellence in all spheres of life.

If the pathogenic and salutogenic/strength orientations can be used in a more balanced manner with regard to human functioning in the work context, effective performance at work can be enhanced further. I-O Psychology needs to shift from merely focusing on reducing negative behaviour at work and on psychological disorders to also actively increasing well-being. In other words the question that I-O psychologists should ask more compellingly is: “How can we enhance employees’ existing strengths in the work context?”

## **19.9 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Which of the following areas of inquiry would likely be of interest to a positive psychologist:
  - a) the ways in which genetic factors influence the development of depression and physical illness
  - b) the ways in which survivors of xenophobia made meaning of their experiences
  - c) the ways in which parenting style related to children’s attachment in later life
  - d) the ways in which brain lesions affect psychological disorders amongst employees
  - e) the ways in which learned behaviour affect interpersonal behaviours of employees.
2. Why is it important to study positive psychology:
  - a) to form a fuller understanding of people’s behaviour through positive and negative aspects of life
  - b) psychology has only been focusing on the negative aspects of human behavior in different contexts
  - c) the negative experiences in different contexts explain almost everything about people’s behaviour, the individual’s interest in activities that only bring pleasure
  - d) to enable psychologists to only be interested in the experiences and

behaviour of healthy individuals

e) to form a fuller understanding of the individual's interest in activities that only bring pain and distress.

3. Self-determination theory specifies three needs as the foundation for well-being. These are:

- a) autonomy, self-esteem, and nurturance
- b) independence, esteem, and belongingness
- c) autonomy, competence, and relatedness
- d) autonomy, self-esteem, and success
- e) independence, esteem, and relatedness.

4. A manager, seeking assistance concerning the work performance of a woman named Kimberley, presented the case to an I-O psychologist. The following symptoms were listed:

- Kimberley seems overly anxious when urgent work must be done.
- She is afraid to speak in front of a big group of people and breaks out in sweat when having to make a presentation.

Based on these symptoms the I-O psychologist made a diagnosis of a psychological disorder. The I-O psychologist asked the manager which strengths he could identify for Kimberly. The manager then stated that Kimberley kept her office neat and orderly, liked to interact with and do things for other employees, made good contributions to projects and was valued by her team members.

The above scenario illustrates that, despite presenting with a psychological disorder, Kimberley is also displaying \_\_\_\_\_ well-being in the work context.

- a) intrapersonal
- b) interpersonal
- c) intergroup
- d) organisational
- e) work-characteristic.

5. Consider the scenario presented in question 4 above. Kimberley has been diagnosed with a psychological disorder, but has high levels of subjective well-being. It can be said that she is:

- a) languishing
- b) flourishing
- c) floundering
- d) focusing

e) struggling.

### **Answers to multiple-choice questions**

1 = b; 2 = a; 3 = c; 4 = b; 5 = e

## Issues for discussion and practice

1. Provide a historical overview of the origins of positive psychology. In the historical overview, include a critically discussion about how positive psychology complement rather than oppose the pathogenic orientation in psychology.
2. Critically discuss the following statement: *Positive psychology is critical to our understanding of human behaviour, because it provides a unique approach to theory, research and practice in psychology!*
3. An older woman, who was trained as a community developer, dedicated her life to caring for those who were poverty-stricken in a South African township. In contrast, a young man who has just had his first successful music album released is interested in attending several parties in Johannesburg and in being noticed in the company of established celebrities.
  - a) Consider the lives of the older woman and this young man. Which of them would you identify as having experienced hedonic pleasure and which eudemonic happiness? Substantiate your decision.
  - b) Apply the assumptions of “the good life” in your decisions about the community developer and the musician, and substantiate your application of them.
4. Identify a person in your community or organisation whom you consider to be a role model for yourself. Then identify and explain the constructs of salutogenesis that your role model uses in his/her daily life.
- 5
  - a) Do you think that with regard to social, psychological and political issues the South African environment contains less positive influences for psychological well-being than other Southern African Development Community (SADC) countries? Substantiate your answer.
  - b) How would you utilise positive psychology and well-being concepts to improve psychological well-being in South Africa?

## CASE STUDY

### **Read Thumi's story and answer the following questions.**

Thumi Shanga moved to Gauteng 12 months ago from Durban where she was born and raised. She went to school and college, and started work as an administrative clerk for a self-employed psychologist. She married and has a 2-year-old son. When her husband was relocated to Gauteng, Thumi successfully applied for her current position. On accepting the clerical position in Gauteng, her current employer assured her of a fast-tracked career that would take her to a supervisory level within a year's time. Although she was quite nervous about the changing environment, Thumi realised that this type of change happened to many people and they cope quite well. Despite her nervousness, she actually felt that this was one of the challenges in life that would stimulate her intellectually and socially. She felt that she would manage the adjustment to life in Johannesburg just fine and assured her worrying mother that she was going to learn very meaningful lessons from life from this change.

Starting work at the big company, Thumi was however confronted with a wide variety of complex tasks. She started working after hours and spent less time at home. After her second week, she was called in by the supervisor and given a verbal warning as a result of the fact that she was not completing work to deadlines. Furthermore, there were at least four customer complaints already lodged against her for incompetence. Obviously this made Thumi very anxious and unhappy. She decided to set up a meeting with her supervisor, the departmental manager and the relevant HR officer in order to discuss her problem. In this meeting Thumi stressed that she knew that the work was not beyond her ability, and she displayed an enduring self-confidence despite the set-backs so far. She confirmed her commitment to do her work and said that she regards her situation as a challenge which she wants to turn around for the good. She asked for some help with regard to specific areas of her work she does not understand.

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1. Identify and discuss the different constructs used to describe well-being displayed by Thumi Shanga. Please provide a thorough theoretical discussion of these wellness constructs that you identified, and use examples from the scenario to illustrate. Important: Use the constructs in this chapter and other information (for example, personality theories) on psychological adjustment to justify your answer.
2. Identify and describe the different interventions that can be implemented by the HR officer to assist Thumi to improve her functioning at work.

## **CHAPTER 20**

# **Psychological disorders and work dysfunctions**

*Ziel Bergh*



## [Introduction](#)



## Defining psychological health and maladjustment



## Explanations for psychological adjustment and maladjustment



## Causal factors in psychological health

20.5

## Classification and description of psychological disorders

20.6

[Work dysfunctions and organisational health](#)



Promoting and managing well-being at work



## Summary and conclusion



## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- define psychological adjustment and maladjustment
- compare the meaning of salutogenic and pathogenic approaches
- reflect on psychological explanations for psychological adjustment
- explain culture in psychological adjustment or maladjustment
- examine possible causes of psychological disorders and work dysfunctions
- identify possible hassles and life change events as stressors
- explain diagnosis and classification of psychological disorders
- give classifications of psychological disorders and work dysfunctions
- compare the main characteristics of various types of psychological disorder
- reflect on the impact of symptoms of psychological disorders on work performance
- describe the characteristics of various types of work dysfunctions
- give an overview with regard to work-related health management and promotion.

## 20.1 INTRODUCTION

Employee and business performance is affected by the psychological health or adjustment and maladjustment of employees, and by organisational health. Employee and organisational health will either promote or impair personal and organisational functioning and the quality of work life at large.

The following scenarios are based on real-life events, and illustrate aspects of psychological disorders and work dysfunctions, or symptoms of these in individuals, groups and society.

These scenarios give an idea of psychological maladjustment in general as well as adjustment problems in the work context:

- A high incidence of alcoholism, drug abuse and related problems is reported, for example, babies born with pre-natal alcohol syndrome, accidents, work loss and interpersonal problems.

- The media reports increasing incidence of aggression and violence at schools and in domestic environments.
- Senior police executives are known to have resigned from their jobs because of fraud or not coping with the expectations and requirements of their jobs.
- The world is shocked by xenophobic violence in Africa, coupled to racism, poor living conditions and ill-conceived political decisions.
- South Africa is rated as a country with very high incidences divorce, crime and road rage.
- In business and government many incidences of fraud and abuse of power occur.
- Some of the negative work behaviours reported are aggression, bullying and conflict between individuals in work groups, racism and prejudice, sexual harassment, and disciplinary problems.

These examples although not all necessarily psychological disorders, illustrate physical, cognitive, behavioural, emotional, ethical or moral attributes and behaviour in people and groups, which may be considered to be maladjusted and may impair people's functioning in one or more life roles. Some of these examples also illustrate possible reasons for the problems and implies what some of the consequences may be for individuals, organisations and even countries.

Chapters 19 and 20 entail the domain of psychological adjustment or health which may be related to personality, but also other psychological processes. Chapter 19 covers the positive side of psychological well-being, which should be the ideal condition in work places. The reality, however, is that psychological adjustment problems exist in general and in people's work life, arguably more frequently than is often reported and must be addressed.

This chapter follows the more traditional or pathogenic approach of describing psychological health and psychological disorders and work dysfunctions. However, this is not done in order to be negative, but because this is necessary knowledge and relevant to life and work contexts. Many people might suffer from some form of psychological maladjustment, which may be treated as medical ailments, but have no clear physical or medical explanation. Work impairments or work dysfunctions are often influenced by psychological disorders or symptoms of these. In a recent Reuters survey in 24 countries by Steinman for the Workplace Dignity Institute, it is reported that up to 53% of employees (in RSA it is 45%) asserted that they work in psychologically unsafe and unsatisfactory work environments (*Beeld*, 25 March 2012). Therefore psychologists and management need to be informed about the nature and

manifestations of psychological dysfunctions in workplaces, in order to provide some help or at least provide a reference to other experts.

Given the meaning that work has for people and societies, psychological health is still a neglected topic in human-resources management, and should be more strongly emphasised as a necessary criterion for employee and organisational performance. In South Africa's health legislation and employee-health-promotion initiatives the emphasis is still more on physical health and safety. Yet psychological health in its various contexts is an important field of study and training for psychologists and other health professionals. Professional psychologists, both those working as private practitioners and those in human-resources positions, are involved in promoting psychological health of employees and the corporate health of organisations.

The *aim* of this chapter is to introduce the reader to the field of psychological health in general and in the work context in particular, with the emphasis on psychological disorders and employee and organisational health problems.

## 20.2 DEFINING PSYCHOLOGICAL HEALTH AND MALADJUSTMENT

Human health or *well-being* is viewed as being a multi-dimensional state of physical, intellectual, social, emotional, spiritual, moral or ethical and occupational well-being, ideas that are shared by the World Health Organisation (Ryff and Singer, 1998; Drenth and Zhong Ming, 2000; Quick and Tetrick, 2003). Views on psychological health and maladjustment often relate to personality and other psychological theories as indicated in Chapters 13 to 18 in this book.

*Psychological health and illness* can be viewed as the absence or presence of acute and chronic physical, mental and/or psychological disease and/or impairments (Deeg, Kardaun and Fozard, 1996). However, this might be in many cases too simple an explanation. This is because illness processes are not always clear, there are differences in cultural perceptions about and expressions of illness or health, faking symptoms of illness, and the fact that wellness often goes beyond the absence of illness symptoms (Kowalski and Westen, 2011). A more acceptable and integrated definition may be the following: "Psychologically healthy and adapted people have integrated functioning, show no signs of mental disorder and are relatively free of emotional conflicts; show autonomy and know their strengths and weaknesses; have aspirations and are creative and resilient with regard to challenges; have a satisfactory capacity for

work; can maintain good relationships; and are competent to cope satisfactorily with daily requirements and in various life roles.”

D.A. Azibo’s (1989:177) definition of *psychological health* is that it is “that psychological and behavioural functioning that is in accord with the basic nature of the original human nature and its attendant cosmology and survival thrust”. This definition incorporates much of African thought on mental health and emphasise the influence of culture. Indigenous African definitions of mental or psychological health have the same emphasis on a shared spiritual essence that creates an extended self-concept with people in the present, past and future, as well as the emphasis on cultural and ethnic maintenance. Health problems are often regarded and treated as a group, cultural or spiritual phenomenon in adherence to cultural and spiritual beliefs and to preserve relationships and cultures. Azibo (1996:53) proposes that mental health is reflected in “patterns of perception, logic, thought, speech, action, and emotional response, whether consciously or unconsciously determined that reflect personal and extended self-respect and personal and self-affirmation”. What this definition implies is not that different from that implied by Western perceptions, but it has a distinct emphasis on cultural influences.

With regard to *psychological maladjustment or psychopathology*, a mental or psychological disorder in general is related to patterns of “abnormal” or deviant behaviour, which is associated with emotional distress (such as anxiety or depression), impaired behaviour, or the inability to function (such as not being able to hold down a job, or having problems in distinguishing reality from fantasy) (Nevid et al., 2008:4). A mental disorder is defined by the American Psychiatric Association (APA) (1994:xxi–xxii) as follows:

“... a clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (a painful symptom) or disability (impairment in one or more areas of functioning) or with a significantly increased risk of suffering, death, pain, disability, or an important loss of freedom. In addition, this syndrome or pattern must not be merely an expectable and culturally sanctioned response to a particular event, for example the death of a loved one. Whatever the original cause, it must currently be considered a manifestation of a behavioural, psychological, or biological dysfunction in the individual. Neither deviant behaviour (e.g. political, religious, or sexual), nor conflicts that are primarily between the individual and society (e.g. crime), are mental disorders unless the deviance or conflict is

a symptom of a dysfunction in the individual, as described above.”

However, the question should be asked whether some societal problems, through socialisation, learning and/or circumstance, have not become so ingrained in peoples’ behaviour that they can or must be treated as forms of individual or group psychological maladjustment.

In the work context, Neff (1977) maintains that *work adjustment* is a process of development in which the individual progressively learns a productive role or acquires a positive work attitude that will eventually characterise the *work personality*, which is a semi-autonomous area of personality. Work psychopathology then implies some area of deficiency or defect in the development of the work personality. People who are unable to work are unable to tolerate or accept the demands of work as a social situation.

Lowman (1993:4) defines *work dysfunctions* as “psychological conditions in which there is a significant impairment in the capacity to work caused either by characteristics of the person or by an interaction between personal characteristics and working conditions”. Lowman’s definition therefore indicates that psychological disorders or symptoms of these (for example, anxiety and fear) can cause impairment of work performance or work dysfunctions. When investigating someone exhibiting impaired work behaviour, psychologists should assess early on whether this impairment is caused by a psychological disorder or not, with a view to managing such a problem.

Psychological maladjustment at work thus involves the employee’s thoughts, perceptions, feelings, attitudes, behaviours and interactions that might affect personal effectiveness and happiness, and impair behaviour. This description more or less includes aspects of subjective well-being that positive psychologists refer to as:

- a person’s emotional well-being (for example, happiness and life satisfaction)
- positive functioning, which includes psychological well-being (for example, self-acceptance and personal growth)
- social well-being (for example, interpersonal relationships and social support) (Keyes and Lopez, 2002).

Work maladjustment is often also related to work stress or coupled with an organisational phenomenon. If organisations are seen as mirror images or microcosms of their environments, and as composed of all the attributes of their employees and their relationships, it is possible to speak of healthy or unhealthy organisations. Organisations that are ineffective in achieving their business

objectives, or experience internal conflicts in their cultural philosophies, values, behaviours and management strategies, and in which many individual health and adjustment problems are reported, can be said to be unhealthy.

An important aspect too, is to assess psychological health in the *context* of what is deemed realistic and acceptable, and in people's social settings or cultural and related norms, which will characterise their psychological well-being or maladjustment in their various life roles. Considering a person to be maladjusted and defining someone as being maladjusted is an issue that requires a lot of sensitivity. Research cited in Kowalski and Westen (2011) has shown that once diagnosed as psychologically maladapted, people, including professionals, may label and discriminate against the diagnosed person. There are also opinions that psychological illness is a myth or that it is used to label people that do not conform to societal standards.

## 20.3 EXPLANATIONS FOR PSYCHOLOGICAL ADJUSTMENT AND MALADJUSTMENT

Explanations for psychological health and maladjustment derive from various psychological paradigms and related theories and concepts, such as personality, developmental theories, medical and psychiatric theories and also work psychology.

### 20.3.1 Do psychologists study and manage illness or wellness?

In the study of psychopathology or psychological disorders, the major emphasis is on illness, pathology or maladjustment, which is treated either by medical or psychiatric interventions or psychological therapies. Similarly in the study of work maladjustment the emphasis is on work-related emotional problems and *counter-productive* work behaviour, attitudes and perceptions, as well as dysfunctional group processes that impair work performance and productivity, and how to correct and manage such problems. More recently, however, a renewed emphasis by positive psychology is on the development of health or wellness and resiliency in people (see [Chapter 19](#)), which raises the issue of which paradigm to use when approaching the study of psychological health: a pathogenic (illness) paradigm or a salutogenic (wellness /health) perspective (Seligman and Csikszentimihalyi, 2000; Shreuder and Coetzee, 2011).

It seems best to take a balanced view and to use these approaches in a

supplementary way (which explains the inclusion of both approaches in this book). Whilst many sub-fields in psychology, for example abnormal psychology, have as their study field maladjusted aspects of human behaviour (such as psychological disorders), these sub-fields also emphasise criteria for positive mental health with a view to identifying psychological health and making healing interventions, such as therapy.

The energetic growth of Positive Psychology as an approach in psychology is illustrated by the inclusion of positive psychological concepts and practices in recent literature in general psychology, health psychology, psychopathology, personality and development, and in the applied fields of I-O Psychology (Gardner, 2002; Barrick and Ryan, 2003; Wright, 2003; Nelson and Cooper, 2007; Snyder and Lopez, 2007; Nevid et al., 2008; Weiten, 2008). The concepts of positive psychology are used to facilitate more self-control and resilience in healthy and less-healthy individuals, groups and organisations so that they can grow, face challenges and cope more effectively with challenges. With regard to fostering and managing positive psychological behaviour, themes such as psychological capital, eustress, thriving, positive core evaluations, communication and interpersonal competence, positive emotions and vigour, ethical leadership and self-engagement are emphasised (Luthans, 2002b, 2004; Nelson and Cooper, 2007).

### **20.3.2 Psychological and other theoretical explanations**

Many approaches were and are used to explain psychological health and maladjustment (Nevid et al., 2008). These range from animist explanations that are based on supernatural forces, sorcery, devil possession, ancestral spirits and other mystical phenomena, which scientific psychology does not accept (Ashton, 2007) to the current-day more scientific psychological explanations. Traces of the animist explanations are still used in some cultures, including South Africa (Louw and Edwards, 1997). A cultural emphasis is important as different cultures explain psychological maladjustment and the ways psychological illness is expressed in different ways (Alden and Paulus, 2000; Kanagwa, Cross and Markus, 2001; Van Dyk, 2001; Nevid et al., 2008; Kowalski and Westen, 2011).

Some of the more scientific assumptions and explanations with regard to psychological adjustment and maladjustment have been touched on in previous chapters, especially in Chapter 4 and Chapters 13 to 19. In accepted psychological perspectives, psychological health and maladjustment are explained scientifically in terms of the psychological dynamics (motivation) and

the development of personality and behaviour, which mostly also includes determinants or influencing factors. Broadly summarised, these explanations for psychological adjustment and maladjustment include both general and unique aspects with regard to genetic and other biological factors, evolutionary explanations, unconscious structures and processes, psychological and social influences, learned behaviour and environmental influences, cognitive constructions, certain personality traits, work-related experiences, systems interactions, as well as cultural and other socialisation influences.

This book's inclusion of the systems, stress and sociocultural approaches is aimed to supplement the theoretical explanations in other chapters, which help to develop an integrative perspective.

### **The Systems-Interactional Model: a summarised operational description**

The individual as a self-system brings a unique frame of reference (individual experiences and characteristics) to other systems like families and the work organisation. The personality of the individual consists of behaviour patterns or relationship styles formed by learning and experiences in all his/her hierarchical systems. This in turn determines the individual's behaviour in his/her relationship with the organisation and with fellow employees.

The organisation also has specific and characteristic inputs because of its culture and its influential hierarchical systems (environments). Its characteristics (for example its communication, management and decision-making structures) determine the type of contact with the individual, and also the kind of behaviour and processes that can be expected. Through a process of reciprocal, continuous and circular interaction and feedback determined by specific behaviour and communication styles, structures, rules and transactions, the individual and the organisation define certain types of relationship and a particular climate (for example, being formal or informal, or service- or production-oriented). It is important to recognise that culture, and especially organisational culture, has a definite influence on people's health: not only how they think and behave, but also how illness manifests and is treated and managed (Varma, 1986; Prince and Tcheng-Laroche, 1987; Ahia, 1991;

Lewis-Fernandez and Kleinman, 1994; Dejoy and Wilson, 1995; Carroll, 1997; Kowalski and Westen, 2011).

All the inputs lead to particular outputs (such as attitudes, feelings and behaviour) by the individual, groups and the organisation, which in turn finally result in particular consequences, which could include health (for the individual and the organisation). The consequences reveal the extent to which individual and organisational objectives, needs and expectations have been satisfied.

The interaction between individuals, and between the individual and the group or organisation, is constantly monitored by means of feedback or control systems, which also determine the extent to which the individual accepts or rejects the outputs and consequences. It is important to remember that there are some dominant influential factors in both the individual and the organisation, which stem from their respective behavioural and value systems. These dominant “coalitions” determine the extent to which individuals and organisations are selective in their interactions, observation and acceptance of each other and events, to gain the maximum benefit from events and situations. Also important are the influences from surrounding environments in which organisations exist and function. Often the boundaries, and interaction, between individual, organisation and environment are not clearly defined, because an individual can be a “member” of various systems. Work-context conflicts between family and work roles provide many problems. In many countries, including South Africa, employee and work roles can be determined and facilitated, but also strained, by union interventions and governmental controls.

It might be a problem if the boundaries and other characteristics of individual, organisational or environmental systems are so prescriptive or rigid that development inside them becomes strained or restricted, so that growth within and outside the system is either impossible or uncertain. Fortunately, organisations can never be absolutely closed, as they are social systems consisting of people, their attributes and interactions, which will ensure ongoing communication and growth.

### 20.3.3 A systems-interactional approach and other contextual perspectives

*General Systems Theory*, which is not a psychological theory, represents *holistic thinking* as a way to integrate other approaches, and to contextualise human behaviour by considering all possible interactions that influence individuals and groups, such as families, work teams and organisations (Katz and Kahn, 1978; Cummings, 1980; McCaughan and Palmer 1994; Kowalski and Westen, 2011). In a systemic emphasis an important principle is *context*, meaning that behaviour has to be interpreted in terms of its functions or meanings where, when and how it happens in a particular environment or situation (Moos, 2002).

The *Systems-Interactional Model* shown in [Figure 20.1](#) integrates ideas from various approaches, and illustrates the various and interactional aspects of psychological health in the work context (influences, causes, processes and consequences). (See also box below.) This model does not only illustrate a field of study, but also a field of human-resources and organisational development and management.

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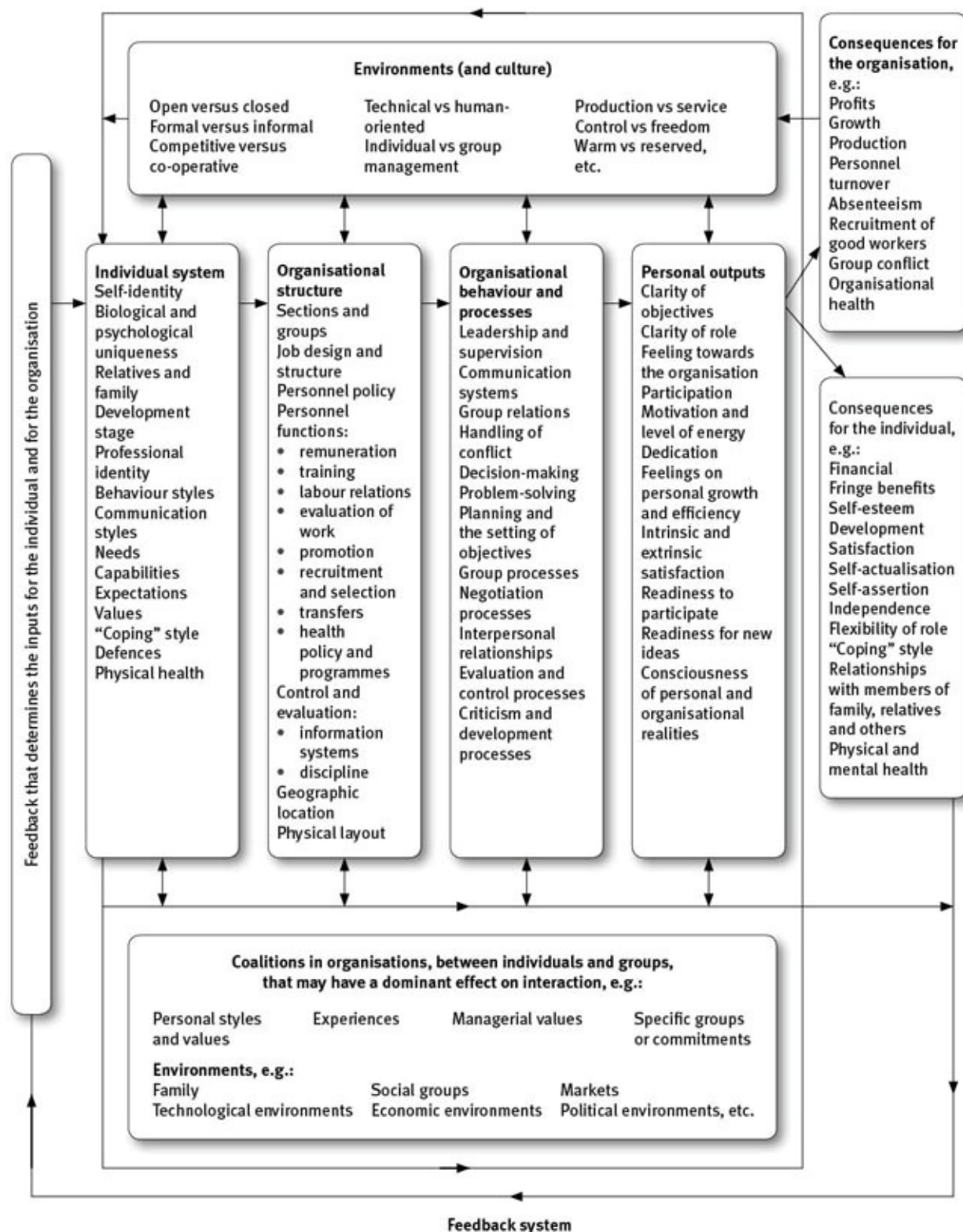
of relationship and a particular climate (for example, being formal or informal, or service-or production-oriented). It is important to recognise that culture, and especially organisational culture, has a definite influence on people's health: not only how they think and behave, but also how illness manifests and is treated and managed (Varma, 1986; Prince and Tcheng-Laroche, 1987; Ahia, 1991; Lewis-Fernandez and Kleinman, 1994; Dejoy and Wilson, 1995; Carroll, 1997; Kowalski and Westen, 2011).

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It might be a problem if the boundaries and other characteristics of individual, organisational or environmental systems are so prescriptive or rigid that development inside them becomes strained or restricted, so that growth within and outside the system is either

impossible or uncertain. Fortunately, organisations can never be absolutely closed, as they are social systems consisting of people, their attributes and interactions, which will ensure ongoing communication and growth.



**Figure 20.1** The Systems-Interactional Model of occupational well-being.  
Source: Adapted from Beer (in Cummings, 1980)

One premise is that an organisation, functioning as a unit, is formed to achieve objectives that cannot be achieved by individuals on their own. Individuals join organisations to achieve objectives and to satisfy needs in a work context that would be impossible or difficult to accomplish on their own.

The type of interaction between the individuals and the organisation finally contributes to the objectives for organisational and individual success, namely efficiency, effectiveness and “health”, the latter including individual physical and psychological health, and also organisational health.

Another premise is that individuals, as self-systems in all their domains of behaviour (biological, cognitive, social and psychological), can be best understood by examining their functioning in the context of the organisational and wider systems that surround them. One needs to bear in mind that the emphasis in the work context is on the individual employee and groups in a specific socio-technical context.

For the purposes of study, diagnosis and intervention, one must think systemically, which means that one has to be aware of what is happening in all aspects of the interaction between employees, the organisation and the environments, and also what the effects or outcomes of interventions could be (Keeney, 1979; Carroll, 1997). For example, technological aspects in organisations might be very important, but such change might be threatening to many people, and result in much alienation and anxiety (such as about job loss or becoming redundant). Similarly, downsizing of organisations, mergers, affirmative action and dismissals are often met with disapproval from those involved and other parties. A systemic understanding is crucial in order to make the most efficient intervention at the right place and time. A reported problem might be an idiosyncratic or isolated incident, but could also have wider implications if understood in its specific context. Often, a reported problem is only a “scapegoat”, or the “symptom-bearer”, for other problems, such as a dysfunctional family or political system (Keeney, 1979; Byang-Hall, 1980). A systems or contextual model also explains why culture-bound syndromes are increasingly included in classification systems, and why traditional healers are recognised alongside modern medicine and psychological treatment.

The so-called *person-environment-fit approaches* can be considered contextual, and explain employee psychological adjustment as the congruence between the employee and workplace characteristics (Sulsky and Smith, 2005). Rodney I. Lowman (1993), for example, explains work dysfunctions as

psychological problems owing to a misfit between the employee and his/her work environment, because work and business environments have specific attributes that are in conflict with many employee interests and values. R.V. Davis and L.H. Lofquist (1984) assert that if there is *correspondence* between employees' work personalities and work-personality styles on the one hand, and the attributes of the work environment on the other hand, work adjustment will occur. This implies that employees and the work environment both contribute to the quantity and quality of work activities, (that is, the speed, pace, pattern and endurance of work performance). This type of employee-employer interaction will ensure *satisfactoriness* in the work environment and satisfaction in employees, which will lead to tenure (employees staying in the work environment and the employer wanting to retain them).

This theory stresses the importance of employees having or acquiring the right competencies (knowledge, abilities, skills and other work-personality styles) for specific jobs and work environments.

#### **20.3.4 Stress models**

Stress approaches are associated with the positive aspects (eustress) and negative aspects (distress) of human health, and they study the physical, cognitive, emotional and behavioural effects of certain stressors or stimuli on people and how people cope with stress demands (Sulsky and Smith, 2005; Nevid et al., 2008). *Stress* refers to the physical and psychological reactions of people to the adjustment or coping demands of stressors (such as frustration, conflict and pressures) in and outside the person. Irrespective of whether stress takes the form of eustress or distress, it influences, or is perceived or appraised by people to influence the available internal and external adjustment or coping resources. If the individual does not adjust or cope successfully, a process of biological and psychological decompensation (collapse or deterioration in health) can occur. This means that in conditions of intense (acute) stress, or protracted (chronic) stress, the individual is not able to react in an integrated way to stressors, with resultant physical illnesses and psychological disorders. Stress can be *acute*, resulting from the sudden onset of events, such as a death in the family or the loss of a job, or it can be *chronic* (of long duration) such as when it is caused by a frustrating intimate relationship, an unsatisfactory work situation or daily hassles. *Stressors*, the causes or stimuli for stress reactions, can arise from a single biological, psychological, sociocultural or external factor, or combinations of these.

A well-known approach to studying and assessing chronic stress uses the so-called “*hassles-and-uplifts*” approach. A.D. Kanner, J.C. Coyne, C. Schaefer and R.S. Lazarus (1981) proposed that chronic stress may arise from daily hassles and uplifts. Out of 117 possible sources, they identified the 10 most frequently reported hassles and uplifts (which are shown in Table 20.1.). Kanner, Coyne, Schaefer and Lazarus (1981) consider daily stressors to be a better explanation for psychological and physical well-being than life events that only occur from time to time.

**Table 20.1** Most frequent hassles and uplifts in life

Most frequent hassles	Most frequent uplifts
Concerns about weight	1. Relating well with spouse or lover
Health of a family member	2. Relating well with friends
Rising price of common goods	3. Completing a task
Home maintenance	4. Feeling healthy
Too many things to do	5. Getting enough sleep
Misplacing or losing things	6. Eating out
Outside home maintenance	7. Meeting own responsibilities
Property bonds/investments/taxes	8. Visiting, phoning or writing to someone
Crime	9. Spending time with family
Physical appearance	10. Home (inside) pleasing one

Obviously, hassles and uplifts differ between people and situations. In this regard, questionnaires on hassles and uplifts can be developed for specific situations, such as work or university life, but one could compile one’s own list related to one’s personal or work situation.

Another influential approach in the assessment and study of the effects of stressors examines *life changes* or *events occurring in people’s lives*, as indicated in Table 20.2.

According to T.H. Holmes and R.H. Rahe (1967), life-event changes that are extremely intense, whether positive or negative, are stressors, which can cause acute or chronic stress reactions. Any change disturbs homeostasis, or balance,

in people's lives, thus creating uncertainty and demanding adjustive behaviours.

Holmes and his colleagues (Holmes and Rahe, 1967) developed the Social Readjustment Rating Scale (SRRS), an objective method for measuring the cumulative stress an individual has been exposed to over a period of time. This scale measures life stress in terms of "life-change units" (LCU) involving stressful events, and was adapted by M.A. Miller and R.H. Rahe (1997) (see Table 20.2). These changes from the original were based on 30 years of research and indicated changes of stress experiences for certain events, and a much higher stress index for most events, which could indicate possible previous research deficiencies, or that since 1967 the intensity of people's stress experiences have changed and increased. For people who had been exposed in recent months to stressful events that added up to an LCU-score of 300 or more, the investigators found the risk of developing a major illness within the next two years to be very high, approximating 80%. These findings, however, might not necessarily be correct, because people might also become ill for other reasons.

A related causal explanation is the so-called "*Diathesis-Stress Model*", used particularly in psychiatric and medical practice, which proposes that certain people might be predisposed (a tendency for) to maladjustment if certain biological or other related stressors are present (Carson, Butcher and Mineka, 1996; Halgin and Whitbourne, 1997).

The impact of stressors and types of stress reactions will be determined by the nature of the stressor, how stressors are appraised as positive or negative, people's stress tolerance abilities, their internal and external coping resources, and their adaptive behaviours. People can moderate the influence and consequences of stress.

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**Table 20.2**      The Social Readjustment Rating Scale

Event	Impact		Event	Impact	
	1967	1997		1967	1997
Death of spouse	100	119	Change in responsibilities at work	29	43
Divorce	73	98	Son or daughter leaving home	29	44
Marital separation	65	79	Trouble with in-laws	29	38
Jail term	63	75	Outstanding personal achievement	28	37

Death of close family member	63	72	Wife begins or stops work	26	46
Personal injury or illness	53	77	Begin or end school	26	38
Marriage	50	50	Change in living conditions	25	42
Fired at work	47	79	Revision of personal habits	24	27
Marital reconciliation	45	57	Trouble with boss	23	29
Retirement	45	54	Change in work hours or conditions	20	36
Change in health of family member	44	56	Change in residence	20	41
Pregnancy	40	66	Change in schools	20	35
Sex difficulties	39	45	Change in recreation	19	29
Gain of new family member	39	57	Change in church activities	19	22
Business readjustment	39	62	Change in social activities	18	27
Change in financial state	38	56	Small mortgage or loan	17	28
Death of close friend	37	70	Change in sleeping habits	16	26
Change to different line of work	36	51	Change in number of family get-togethers	15	26
Change in number of arguments with spouse	35	51	Change in eating habits	15	27
High mortgage	31	44	Vacation	13	25
Foreclosure of mortgage or loan	30	61	Christmas	12	30
			Minor violations of the law	11	22

Source: Adapted from Holmes and Rahe (1967) and Miller and Rahe (1997)

### 20.3.5 Sociocultural perspectives

Cultural or sociocultural perspectives seek the causes of psychological disorders in social and cultural stressors, the influences of various social agents such as parents and families, failures of society such as poor morality, bad socioeconomic conditions and oppressive sociopolitical systems, and in factors such as ethnicity, prejudice, discrimination and types of health policies and practices (Apfelbaum, 2000; Malik, 2000; Yates and Sclater, 2000; Nevid et al., 2008). Sociocultural influences, which emanate from environmental and cultural factors, relate to family dynamics and the immediate environment, for example

values and habits, socioeconomic factors, urbanisation, religion, ethnic groupings, marital state, and educational and social status. Psychological disorders also need to be interpreted in terms of the meaning of symptoms in the specific social context (see ethical reader box).

In psychology theory and practices (for example, diagnostic systems) attempts are increasingly made to integrate sound cultural explanations and manifestations in classifications of psychological disorders. Cultural explanations could, however, provide many inconsistencies. Nevertheless, movements for *indigenous psychologies* emphasise the need to indigenise existing and new psychological knowledge, including the understanding and treatment of psychological health in its cultural context (Gobodo, 1990; Littlewood, 1990; Robinson and Howard-Hamilton, 1994; Ryder, Alden and Paulhus, 2000; Kanagwa, Cross and Markus, 2001; Van Dyk, 2001). Though many psychological disorders or their symptoms manifest similarly in different cultures, in some cultures specific culture-bound disorders are described (German, 1987; Carson, Butcher and Mineka, 1996; Halgin and Whitbourne, 1997; Nevid et al., 2008).

### **ETHICAL READER: Is mental illness a myth or social creation?**

Psychologists need to heed the ideas of movements such as social constructionism, in which it is emphasised that knowledge and concepts of human behaviour are nothing less than social formations and representations (in Squire, 2000). Some social constructionists might even assert that mental illness is a myth, and a social creation of professionals and society to control people for some or other reason. Obviously, there is much evidence of the real existence of psychological disorders, many of which might have genetic and biological origins. But the critical attitude towards the way that health status is judged emphasises the need for psychology and psychologists to respect basic human rights, ensure valid knowledge and procedures, and use knowledge, practices and information fairly and ethically.

## **20.4 CAUSAL FACTORS IN PSYCHOLOGICAL**

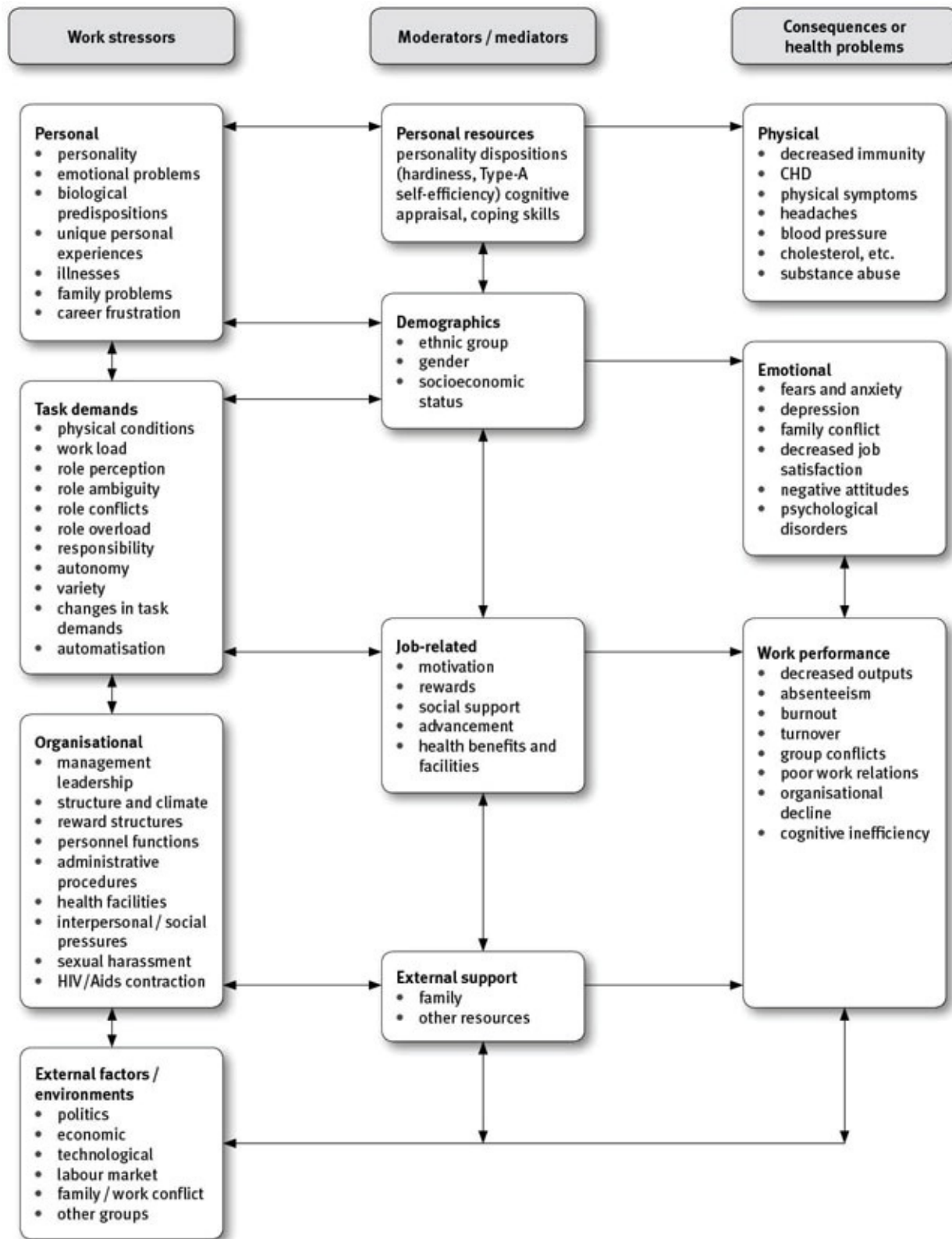
# HEALTH

In the above-mentioned approaches and previous section, many determinants or influencing factors of psychological adjustment and maladjustment were identified. These same determinants and influencing factors affect adjustment and maladjustment behaviours, depending on how people experience such factors.

However, the *causes or determinants of psychological disorders* (also referred to as *etiology*) can be subdivided into at least four groups of factors, a classification found in more or less all psychological topics in which causation is a topic of interest. These groups are biological factors, psychological factors, sociocultural factors and work-related factors, and often external factors is added (see [Chapters 4](#) and [13](#)). A person's genetic endowment and socialisation (learning in environments) creates a person's unique personal attributes, which determine how he/she will react, adapt and cope in favourable and less favourable circumstances. In this regard, the connection between personality, physical illness and psycho-physiological illnesses are well documented through theory and research (Larsen and Buss, 2007). Added to such personal influencing factors, external factors, often out of a person's control (for example, traumatic events and experiences), may have a profound influence on a person's physical and psychological health (Carson, Butcher and Mineka, 1996; Wilson, Nathan, O'Leary and Clark, 1996; Nevid et al., 2008).

It appears that *stress* can be used as an integrative model and concept for psychological health if it is assumed that all influencing factors on people and their environments are internal and external stressors of some sort, as is indicated in [Figure 20.1](#), and [Tables 20.1](#) and [20.2](#). Stress and work-stress models, such as [Figure 20.2](#), more or less involve all influencing factors on human behaviour that are usually discussed in the literature. In addition to factors unique to employees in terms of their biological and acquired attributes and unique life experiences or socialisation, other causal factors specific to individuals and to most work environments are depicted. *Work stress* (see [Figure 20.2](#)) can influence work outcomes in many ways and have many consequences for the individual, including physical diseases, emotional reactions, psycho-physiological symptoms, cognitive deficiencies and behavioural reactions, as well as the possibly being a contributing factor in psychological disorders (Schafer, 1987; Cooper and Payne, 1994; Auerbach and Gramling, 1998; Sulsky and Smith, 2007).

People's appraisal of stress and other coping resources will moderate the stressors, the consequences of stress, and how people cope with stress stimuli and experiences.



**Figure 20.2** The causes, process and consequences of work stress.

Although a single factor or stressor can have a dominant influence, psychological health can best be understood by considering the continual interaction between a complex number of factors, as indicated by a systems approach. For example, A. Kleinman (1988) believes that psychological adjustment can only be understood correctly if the interaction between psychological, biological and cultural influences (a bio-psycho-social approach) is considered. The interactive and circular influence of factors on an individual's behaviour and the context of a person's behaviour should always be taken into consideration.

## 20.5 CLASSIFICATION AND DESCRIPTION OF PSYCHOLOGICAL DISORDERS

Certain psychological disorders are more relevant in the work context, and this section concentrates on introducing these disorders. Owing to the seriousness of psychological disorders, people diagnosed with such disorders are often institutionalised or placed under treatment, and are usually not able to work, or, if they are, work behaviours will be seriously if not totally impaired. However, many employees may manifest some of these symptoms (for example, anxiety and depression), which may influence occupational behaviours. In relevant cases and for health-promoting purposes, it is important to firstly determine whether work impairments reflect psychological disorders or whether they are less serious and reflect rather work-related emotions and behaviour deviations.

If viewed separately, *psychological (or mental) disorders* refer to disordered or deviant personality functioning, and other types of emotional maladjustment, for which classifications of different types of conditions or syndromes exist, as stated in the *Diagnostic Statistical Manual of Mental Disorders (DSM-IV-TM)* (American Psychiatric Association, 1994, 2000; Nevid et al., 2008; Burke, 2009; Wade and Tavis, 2009). A *syndrome* is a distinct, recognisable group of characteristics and symptoms, which can be used to recognise types of disorders, for example types of anxiety and personality disorders or schizophrenia. To identify and diagnose psychological disorders, very specific criteria are applied in diagnostic systems such as the *Diagnostic Statistical Manual (DSM)*, which will be compared to assessment and other information relating to a person. An array of assessment information, such as psychological tests, interviews, and medical, family, illness and work history is usually used by psychiatrists and

qualified psychologists to decide to which psychological disorder an affected person belongs. Psychodiagnosis is done with a view to treatment, research and referral.

The DSM-diagnostic system is used according to operational criteria for specific disorders to determine a possible diagnosis and classification. The clinician has to decide how the person's behaviours relate to one or more of five axes as follows:

- Axis 1: any clinical disorder and other related clinical conditions (which are stressful and impair social and occupational functioning)
- Axis II: personality disorder and mental retardation – enduring problems which impair social and occupational functioning
- Axis III: possible general medical or physical problems which may influence psychological functioning
- Axis IV: psychosocial and environmental problems that may affect diagnosis, treatment and prognosis (healing) of psychological disorders
- Axis V: on a rating scale from 1 to 100, a global assessment of the person's general functioning in various life roles and in leisure (APA, 2000).

### **Classification of psychological disorders**

The major diagnostic categories used in classifying psychological disorders are:

- stress, psychological factors and health (adjustment reactions, psychological factors and physical disorders)
- anxiety disorders
- dissociative and somatoform disorders
- mood disorders
- personality and impulse-control disorders
- schizophrenia and other psychotic disorders
- substance -related disorders
- sexual and gender identity disorders
- eating disorders and sleep disorders
- cognitive disorders and disorders related to age
- disorders diagnosed in infancy, childhood and adolescence.

It is only axis IV, and to a lesser degree axes 1 and V, that address some aspects

of occupational behaviours as possible causal or symptomatic indicators. Work dysfunctions cannot necessarily be considered as psychological disorders, and are therefore not included in clinical or psychiatric diagnostic and classification systems.

In most countries, including South Africa, for psychological training, assessment or diagnostic and treatment practices, the DSM is utilised in association with the International Classification of Diseases system (ICD system), which is preferred by medical funds and practitioners for its more sophisticated coding system. Much literature is available to indicate the similarities and differences between the two systems, which are mostly related to the coding system, the detail or the sophistication in the classification of psychological disorders in the DSM, in contrast to the ICD system which more emphasise biological/medical aspects (Marutt, Schulte-Markwort and Rieddessa, 2003; Banzato, 2004; Burke, 2009).

For the purpose of this book, not all psychological disorders will be discussed and they will not be dealt with in detail.

### **20.5.1 Stress, psychological factors and health**

People may and will have many reactions to stressors such as daily hassles, changes owing to life events, frustration, conflicts in personality, pressures on lifestyle, and sociocultural and external influences. In general, it is agreed that negative stress has many physical, physiological, cognitive, emotional and behavioural effects. There is also general agreement on the mutual cause-and-effect relationship between body and mind, or physical, biological and psychological factors (Carson, Butcher and Mineka, 1996; Auerbach and Gramling, 1998; Sulsky and Smith, 2005).

An important way in which *stress* affects people's health is by attacking the body's *immune system* (Aldwin and Gilmer, 2004). Biological influences include physical stressors such as temperature extremes and food and sleep deprivation, and also relate to psychological stressors such as anger, negativity, certain habits or lifestyle behaviours, divorce and unemployment.

Too much stress decreases the ability of the endocrine, nervous and other immune systems to effectively combat negative influences such as bacteria, injuries, pollution and psychological stressors. In this way many physical illnesses (for example, stomach ulcers, anorexia nervosa, migraine and tension headaches, cancer, skin diseases, obesity, asthma, hypertension and coronary heart diseases) have been positively related to stress (Auerbach and Grambling,

1998; Cavanaugh and Blanchard-Fields, 2006). Most of these illnesses are also examples of the interaction between psychological factors and physical diseases (often also referred to as psycho-physiological disorders). Less-effective immune-system functioning and less-effective defences against stressors are often more prevalent in old age.

The *General Adaptation Syndrome* (GAS) proposed by Hans Selye (see the below) explains how an individual reacts physically and psychologically to acute and chronic stress, in the short term or even over longer periods of time. It describes how the human body reacts by means of the nervous system and endocrine functions when it experiences stress from internal or external influences (Carson, Butcher and Mineka, 1996; Nevid, Rathus and Greene, 2008). A similar and interesting model is the *Conservation of Resources Model* by S.E. Hobfoll (1989), who describes stress as a response to threat of loss, an actual loss or an inability to gain or regain resources. When threatened by stressors, people manage stress by minimising loss and maximising gain of resources. Resources include any personal attribute (such as self-esteem) or physical resources from the environment (such as friends and employment) that are valued by the person.

## **The General Adaptation Syndrome**

**Selye's General Adaptation Syndrome (GAS) entails three phases:**

- The first phase is an alarm-and-mobilisation phase. The individual prepares to counteract stress and its effects. The functions of the central and autonomous nervous system are especially important in this phase. At the psychological level the individual will begin to display emotional reactions, experience more stress, and be more sensitive. Adaptive behaviour might also follow, for example fight, flight or withdrawal. The psychological reactions might not be too serious, for example there may be anxiety or physical reactions such as increased tension and stomach cramps.
- The second phase is the resistance phase. It is characterised by alarm and mobilisation, but the rate of adaptive reactions increases as the endocrine system comes into operation. For instance, the cortex might facilitate the secretion of adrenaline, or hormones might be released into the blood to stimulate blood

circulation. At this stage the individual actually experiences the alleviation of stress at the psychological level through effective defensive behaviour or genuine problem-solving behaviour. However, the individual's adaptive behaviour could be less successful; there might be more serious physical and psychological problems and his/her adaptive behaviour might not progress if he/she clings to unsuccessful methods of solving problems.

- The third phase is the exhaustion and disintegration phase. In this phase the sustained stress exceeds the individual's capacity for physical and psychological adaptation. Serious physical and psychological symptoms or conditions might follow (for example, metabolic changes, physical diseases and psychosomatic conditions, such as cardiac or stomach diseases and paralysis). At the psychological level there might be symptoms that indicate the serious decompensation caused by stress. These symptoms include extreme anxiety, phobia, breaking with reality, delusions and hallucinations, and thought and speech disorders (in other words, symptoms associated with psychoses, which in neglected cases can even lead to death).

#### 20.5.1.1 Adjustment disorders

Adjustment disorders relate to stress reactions to adverse life-events, as depicted in [Table 20.2](#) by Holmes and Rahe (1967). Reactions such as depression, anxiety, behavioural or conduct disorders, emotional outbursts, loss of work capacity and withdrawal can follow acute (severely traumatic) stress or chronic (protracted) stress. Obviously, people's psychological resilience and other coping resources also determine how stressful life events are handled. Although these types of stress reactions are associated with intense emotions and, often, destructive behaviours, and may have progressive phases of reaction (such as shock, rage, denial, withdrawal and acceptance), recovery is usually complete as soon as the stressor has faded or the individual has learned to adapt. According to Carson, Butcher and Mineka (1996), *post-traumatic stress disorder* (PTSD), caused by catastrophic events and traumas, such as rape, being held hostage and military-combat experiences, is also an adjustment disorder, on the grounds that PTSD is related to specific acute life events, and is usually cured once the event

and related memories fade. The DSM actually classifies PTSD as an anxiety disorder, especially if the anxieties associated with the trauma remain as a chronic condition.

### 20.5.1.2 **Psychological factors and physical disorders**

*Psycho-physiological disorders* (previously conceptualised as psychosomatic disorders) refer to the manifestation of physical symptoms as a result of psychological stress and negative emotions. There is sufficient evidence to prove that negative stress and negative emotions are harmful to physical health, whilst positive emotions create an increased ability to counteract illness and to improve performance (Wright and Staw, 1999; Weiss and Kurek, 2003). Michael Scheier and Charles S. Carver (1998) found that an optimistic coping style, as opposed to pessimism, is positively related to good health and recovery from illness, and subsequent research also related optimism to various positive health outcomes (Nevid, Rathus and Greene, 2000, 2003). As indicated earlier, other factors might moderate the effects of the stress-illness-health relationship. Psycho-physiological types of disease are important causes of death and disability and the loss of productive work performance. Some of the well-known psycho-physiological diseases are discussed further as follows:

- *Stomach ulcers* are caused by excessive secretion of acids and digestive juices that damage the stomach or intestinal linings. Although diets and other organic conditions can cause stomach ulcers, they are ascribed particularly to negative emotions such as worry, anger and anxiety. In addition, physical symptoms are usually followed by further emotional reactions.
- *Headaches*, which can manifest in many illnesses, include migraine and muscle-tension headaches. *Migraine*, caused by deficient blood flow to the brain, might have correlates in personality dispositions, life habits, neurological causes and stress. A migraine has a varied duration (hours or days) and it influences physical, cognitive and emotional behaviours. Muscle-tension headaches are caused by muscle contractions and are characterised by intense or dull headaches.
- *Cardiovascular diseases*, of which coronary heart disease (CHD) is a major form, are most frequently related to negative stress conditions and are mostly caused by deficient blood flow, owing to the process of arteriosclerosis, which is the gradual thickening of the walls of blood vessels and which leads to many heart attacks (myocardial infarction) (Nevid, Rathus and Greene, 2008). Cardiovascular disease is one of the leading causes of death in many

countries, including South Africa. Some of the risk factors identified in cardiovascular disease are: age older than 40, being male, having a family history of CHD, a low socioeconomic status leading to unhealthy life habits, obesity, hypertension (high blood pressure), high levels of cholesterol, heavy and unhealthy drinking and eating habits, high levels of anxiety and emotions such as anger and hostility, little exercise and environmental stressors such as high-strain jobs. The psychological treatment of CHD relates to alleviating the person's stress that is due to the overemphasis on, or high incidence of, these factors. The *Type-A behaviour or personality pattern* describes people with a high risk of CHD because of their stressful lifestyles, characterised by impatience, strict time schedules, competitiveness, being highly driven, being hostile in nature and overinvolvement with work. However, not all achievers are Type-A people and necessarily prone to heart disease. For example, the Type-A person might rather be a hardy personality type with attributes of commitment, facing challenge and being in control (Kobasa, Maddi and Kahn (1982).

(HIV/Aids (*human immunodeficiency virus/acquired immunodeficiency syndrome*) is a deadly, incurable viral disease, primarily transmitted by unsafe sex, forced sexual acts and rape involving vaginal, anal or oral-genital contact. Infected mothers can transfer the virus on to babies during pregnancy and by breastfeeding. It can also be transferred through the use of contaminated blood in blood transfusions, by accidental transfer of blood (for example, to health workers assisting in operations and with injuries), and through needle-sharing by substance abusers. HIV/Aids decreases or destroys the human immune system. Victims easily contract diseases and are helpless to fight them, whilst serious psychological anxieties, negative emotions and depression accompany the illnesses for the sufferer, and also for family, friends and colleagues. It is a tragedy that one of the main reasons for HIV/Aids infliction might be the "maladaptive" perception and actions with regard to "safe sex", as well as abuse with regard to sexual behaviour amongst individuals and groups. HIV/Aids is becoming the primary killer disease in many countries, especially in Africa (Lindegger and Wood, 1995; Chipfakacha, 1997).

Other forms of physical diseases related to psychological factors are asthma, obesity (eating disorders) and particular sleep disorders, though eating disorders, obesity, and sleeping disorders are now classified as a separate group of disorders (APA, 2000).

### 20.5.2 Anxiety disorders

Anxiety disorders (previously referred to as neuroses) could be said to be less-serious psychological disorders when compared with psychoses. The main characteristics are consciously experiencing anxiety, panic and fear, and unsuccessful and misplaced attempts to control these emotions, which often only exacerbates it and leads to unresolved problems. In contrast to people with personality disorders, people with anxiety disorders do not see their problem as part of themselves (egodystonic) and therefore most willingly seek help.

*Anxiety* has many physical, emotional, behavioural and cognitive symptoms and can vary from acute feelings of panic to more chronic (continuous) anxiety, whilst the intensity of the anxiety can also vary. Secondary symptoms include tension, depression, anguish, insomnia, irritation, stomach ulcers and cardiovascular problems.

The main types of anxiety disorder are generalised anxiety disorders, obsessive-compulsive disorders, post-traumatic stress disorder, as well as panic and phobic disorders.



**Figure 20.3** Anxiety and panic.  
*The Scream* by Edvard Munch

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*Generalised anxiety disorders* (GAD) are chronic or reasonably protracted conditions characterised by repeated episodes of intense, undefined or free-floating anxiety. Sufferers are in a constant state of tension, worry and discomfort, have sensitive interpersonal relations, feel ineffective and depressed, and often manifest physical symptoms such as nervous movements, bodily pains, diarrhoea, nightmares, insomnia and cardiovascular and respiratory problems. In extreme cases this condition is associated with anxiety attacks, also referred to as

panic disorders, in which some of the above symptoms are dramatically manifested.

*Obsessive-compulsive disorders* (OCDs) are characterised by obsessive thoughts or compulsive actions and rituals. Such thoughts, ideas, feelings or actions are usually irrational, undesirable and unpleasant for individuals but they are unable to control them. Examples of obsessive ideas or recurrent thoughts are those about hygiene that result in a preoccupation with neatness and chronic hand-washing, guilt feelings, urges to kill and sexual fantasies. Compulsive actions or behaviours include rituals (such as prayers), hand-washing, the touching of objects and the avoidance of objects (such as stepladders). All these rituals are attempts to control anxiety.

*Post-traumatic stress disorder* (PTSD) occurs during, immediately after, or sometime after, an intense, traumatically acute (intense) or chronic (of long duration) stressor. A distinction is made in PTSD between acute reactions (beginning within six months of the stressor), chronic reactions (lasting longer than six months), and delayed reactions (beginning at least six months after the stressor). In general, PTSDs are characterised by repeated experiences of anxiety about the initial stressor, a lack of responsiveness to the environment (apathy), and a variety of symptoms such as fright reactions, irritation, fatigue, insomnia, intolerance (for example, of noise), nightmares, loss of concentration, memory impairment, depression, heightened aggression and withdrawal.

Examples of experiences that can or have evoked post-traumatic stress reactions are catastrophes such as collisions, floods, earthquakes, fires, explosions, armed robberies and rape. The following drew renewed attention to the intense negative effects of traumatic stressors: the First and Second World Wars, the dropping of atomic bombs on Hiroshima and Nagasaki, the mass deaths of Jews in Nazi concentration camps, the experiences of prisoners of war, conflict in Israel, the 9/11 attacks in New York, and natural disasters such as floods, hurricanes and tsunamis. Concepts such as “shell shock”, “operational fatigue”, “war neuroses”, “combat exhaustion” and, more recently, “burnout”, are used to refer to PTSDs. Treatment requires intense medical, psychiatric and psychological intervention. Recently the emphasis has been on early identification and treatment of potential post-traumatic reactions. Many of these endeavours aim to desensitise people to such intense fears and pain.

Other types of anxiety disorder are panic disorder and phobic disorder.

*Panic disorder* is characterised by repeated and unexpected panic attacks and anxiety. Such attacks are not necessarily related to a specific threatening event or

object, for example during times of stress, or may be related to traumatic events. Panic attacks can last some minutes, or even a few hours. They are accompanied by sensations of danger and demonstrated by observable physical symptoms such as heart pounding, increased respiration, trembling, choking sensations, chest pains, dizziness and nausea, fear of going crazy and dying, and difficulties in breathing. Panic attacks are also characterised by the feeling of not being in control. In this regard, panic disorder can be associated with or without Agoraphobia – the phobic fear for places and situations where escape would be difficult. Panic disorder or panic attacks can occur as part of other psychopathological conditions and it occurs more often in women than in men.

*Phobic disorder* differs from other anxiety disorders in that phobic fear is related to a particular object, idea, person or event, even if such objects do not pose any danger. The fear is intense and out of proportion to the actual stimulus value. Although phobias can be generalised, they are often linked to some or other object, for instance fear of heights (acrophobia), fear of enclosed spaces (claustrophobia), fear of pain (algophobia), fear of animals (zoophobia), fear of being left alone (monophobia), fear of fire (pyrophobia) or fear of blood (haematophobia) and agoraphobia. Social phobias involve a fear of being judged negatively by others.

### **20.5.3 Personality and impulse control disorders**

Personality disorders are sometimes referred to as character or social disorders. In contrast to anxiety and mood disorders (where anxiety, conflict and ineffective defences against anxiety are characteristic) and psychoses (where there is a total disintegration and almost primitive mode of adjustment), personality disorders are characterised by enduring, rigid and poorly acquired patterns of learned behaviour, unsatisfactory interpersonal relationships, and mostly ineffective occupational performance, often with few signs of anxiety and conflict about such inefficiencies. Personality disorders are often observable during childhood and adolescence, and continue into adulthood, especially in the workplace, where they can be acted out.

In contrast to anxiety and mood disorders, where afflicted persons are worried about their condition and seek help, people with personality disorders often experience their deviance as an integral part of themselves (egosyntonic), and will often accept help only if forced to do so by people affected by their self-defeating and often destructive behaviour patterns. It seems as if most categories of personality disorders occur predominantly in males (Weiten, 1995).

According to the DSM, personality disorders are comprised of three groups as follows:

- Personality disorders characterised by *odd or eccentric behaviour*:
  - The *paranoid personality* is very egotistical, manifests feelings of hypersensitivity, is very sensitive to criticism, and is suspicious and jealous. Emotions are superficial and poor interpersonal relationships will be evident. In contrast to paranoid schizophrenia and delusional psychosis, delusions and hallucinations are absent.
  - The *schizoid personality* is characterised by extreme introversion, an inability to form and maintain close relationships with other persons, and a restricted number of emotions and a low level of emotional response.
  - The *schizotypal personality* is not schizophrenic, but in low levels of emotion, detached attachment behaviour, ways of thinking, communication and perception shows behaviour that resembles the schizoid and schizophrenic behaviours. Added to this is their anxiety in relationships, superstition, magical thinking and acting according to rituals.
- Personality disorders characterised by *dramatic, emotional or erratic behaviour*:
  - The *narcissistic personality* describes individuals with excessive concern about their own importance and undue demands for attention and admiration. Although they try to appear very self-assured, they are actually naïve and insecure, and often unable to have binding relationships.
  - The *antisocial personality, sociopathy or psychopath* manifests a lack of judgement, transgresses rules and regulations, is often aggressive, manipulates others to his/her own advantage, shows few signs of responsibility, remorse or guilt and has poor interpersonal relationships. Though criminal behaviour is not only caused by antisocial personality types, such people may clash with the law, learn little from being punished and can be habitual criminals. The antisocial personality disorder might be prevalent throughout life, might show in childhood conduct disorders, and manifests more in men, but increasingly amongst women.
  - The *histrionic personality* shows overdramatic (hysteric) behaviours, seeks attention, is egocentric and flirtatious, and tends to be excessively emotional, emphasise physical appearance and exaggerate medical problems.
  - The *borderline personality* has mixed symptoms, including an unstable emotional life, impulsiveness and poor self-image with regard to various

aspects of self-identity, a strong need for affection and maintains disturbed relationships.

- Personality disorders characterised by *anxious and fearful behaviour*:
  - The *obsessive-compulsive personality* manifests excessive and sometimes irrational concern with neatness, detail, rules and regulations, and is preoccupied with own activities and cannot express emotions. There are no obsessions and compulsions as with obsessive-compulsive disorder (see anxiety disorders).
  - The *avoidant personality* is characterised by social anxiety, fear of rejection, social withdrawal, low self-esteem, fear of criticism and will not easily form binding social relationships.
  - The *dependent personality* displays behaviour indicating a lack of confidence, submission and dependence to other people, and inefficiency in being responsible, making decisions and taking initiatives.

It is possible that symptoms of personality disorders can manifest in many people who will be able to function well in life roles. It is possible, for example, that some researchers or engineers may be very introverted, or that some sales people may seem to be manipulative or assertive, but these attributes may contribute to their work success.. As personality disorders often manifest in work settings, they can be severely detrimental to interpersonal and group relationships and work processes. In addition, these styles of behaviour can lead to poor decision-making, poor attitudes to work, poor motivation, a slow rate of work, increased production losses because of dismissals, absenteeism and accidents. Neff (1977) identified five types of dysfunctional work-personality styles or reactions, which strongly resemble the DSM classification of personality disorders (see section 20.6).

*Impulse-control disorders, including the explosive personality disorder*, are characterised by problems with controlling temptations, impulses and needs, which then may result in harm to themselves or other people, for example in cases of pathological gambling, kleptomania, setting fires and violent rages using verbal and physical aggression. These disorders may also relate to psychological dependence.

#### **20.5.4 Substance-related disorders**

These disorders are classified as substance dependence, substance abuse, substance intoxication, substance withdrawal and substance-induced disorders

(APA, 2000; Nevid, Rathus and Green, 2008).

*Substance dependence* implies physiological dependence, after prolonged use of substances. The person's body changes physiologically and develops a tolerance for increased substance use (if not used, withdrawal symptoms might develop). Substance dependence also implies psychological dependence, a compulsive, uncontrollable and recurrent use of a drug that is due to dependence needs. Substance dependence will always be the result of substance abuse, and will deteriorate if it develops into compulsive behaviours to hide, obtain and increasingly use certain substances.

*Substance abuse* develops after on going and recurrent use of substances (such as alcohol, drugs, sedatives, medicines) which influence various life roles and may lead to legal, employment and relationship problems.

*Substance intoxication* happens after or during substance use and may impact on more or less all domains of human behaviour – consciousness, thinking, judgement, perception, and physical and psychosocial behaviour. Except if intoxication is enduring, symptoms may disappear, however, on going intoxication may cause brain damage and consequences such as delirium, coma, convulsions and vomiting (APA, 2000).

*Substance withdrawal* occurs substance use is decreased or terminated. Depending on the substance and the nature of the addiction, symptoms may disappear in time, however, will be preceded by symptoms such as confusion, convulsions and other impairments of roles and behaviour.

*Substance-induced (psychotic) disorders* relates to the use of psychoactive drugs, medicine, stimulants and alcohol that cause various levels of intoxication, disorientation and other consequences. Many drugs and chemicals are psychoactive, (e.g. alcohol, nicotine from smoking, heroin, morphine, cocaine, caffeine, LSD and marijuana), that is, they cause or induce disturbances similar to psychotic symptoms in psychological or emotional, cognitive, social and perceptual functioning. With regard to the latter, hallucinations (sensory perceptions without stimuli) and delusions (false beliefs) may also occur.



**Figure 20.4** Substance dependence and abuse.

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*Substance-induced disorders* refer to types of disorders or symptoms, for example anxiety, hallucinations, amnesia and depression, which can be caused by the use or abuse of psychoactive substances.

The effects of psychoactive substances are often observed in various levels of intoxication, drunkenness or being “on a high”. This is characterised by impaired movements and judgement, slurred speech, concentration problems and confusion, and in some cases might lead to death or suicide.

The consequences of substance addictions are seen in a great variety of physical ailments, decreased sensory and motor abilities, poor emotional control, poor social judgement and poor interpersonal relationships, and decreases in motivation, intellectual ability and work performance. The effects of alcohol and drugs in the work situation might include:

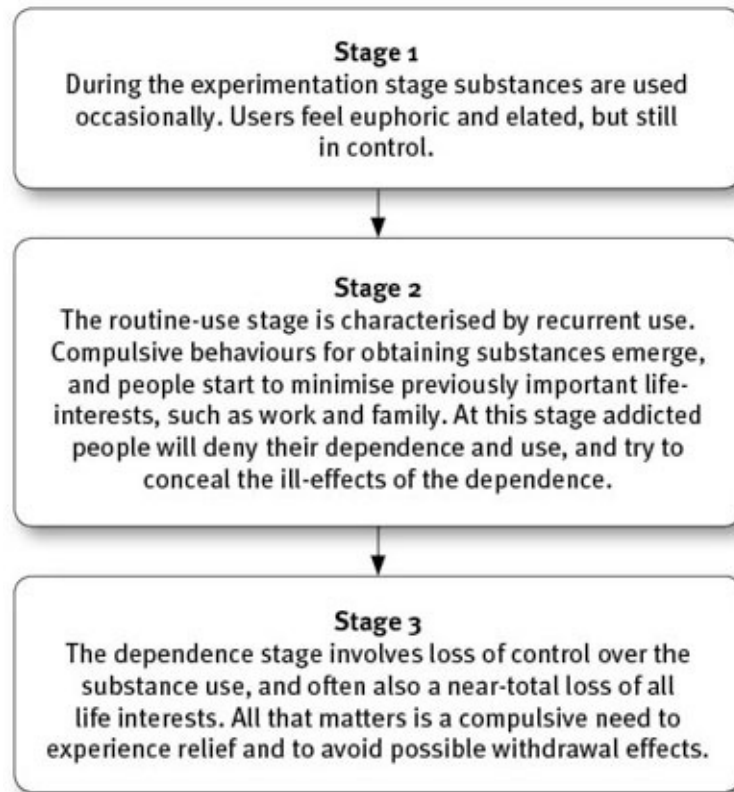
- unemployment
- absenteeism
- illness
- slow reaction times and coordination
- uncontrollability
- moodiness
- inaccuracy

- accidents
- inability to train the person
- lack of progress in the job
- dependence
- insecurity
- indecision
- aggression
- rigid styles of work.

All of the above might result in a loss of production and resources for both the employer and the employee. The problems of these people at work are aggravated by the fact that they frequently also experience problems outside work, for instance clashes with the law, and financial and marital problems. In cases such as chronic *alcoholism*, serious disorders, even psychotic conditions and brain damage, might develop, and these can eventually lead to death. Even the withdrawal symptoms during the absence of substances can be life-threatening. In milder forms the symptoms include nausea, vomiting, poor appetite, sleep disorders and general disorientation.

A big societal blunder is the failure to recognise that alcohol and nicotine are deadlier drugs than many classified drugs, yet alcohol use and tobacco smoking are socially acceptable, even if it is heavily taxed. Tobacco sales are in countries' vested interests and form a legitimate part of national income. Alcohol and tobacco are legalised drugs, sold and used in every sphere of life amongst young and old, even in hospitals and other health-care institutions.

There are many biological, social and psychological reasons why people might develop substance dependency. Whatever the underlying reasons, substance dependence usually has a sequence of stages (Carson, Butcher and Mineka, 1996). Rodger Weiss and Steven Mirin (in Nevid, Rathus and Greene, 2000) suggest the stages of alcohol dependence as shown in Figure 20.5.



**Figure 20.5** Weiss and Mirin's suggested stages of substance dependence.

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Various forms of *psychoses* associated with substance abuse and now classified as cognitive or brain disorders include pathological intoxication, delirium tremens, acute hallucinatory condition and Korsakoff's syndrome (Nevid et al., 2008).

### 20.5.5 Mood disorders

*Mood disorders*, also called affective psychosis, are characterised mainly by disorders of emotions and moods, which disturb physical, social, cognitive and perceptual functioning. The moods and emotions of sufferers fluctuate between extreme excitement (manic states) and the deepest depression. Unlike in the case of schizophrenia, extreme distortion of cognitive processes does not occur. Mood disorders are rather distinguished by a lack of concentration and negative thinking, although hallucinations (perceptions without any related stimuli) sometimes occur. Affective psychosis can vary from the unipolar form, that is experiencing either depression or excitement (manic states) to the bipolar form, in which alternating emotional extremes of manic states and depression during

the same period are experienced (Kowalski and Westen, 2011).

Depressive disorders might be a reaction to particular external events, such as various forms of trauma. *Postpartum depression* refers to depression of mothers after the birth of children. *Endogenous depressive disorders* cannot be coupled to external events, and might be related to biologically and genetically based causes.

Mood disorders can be characterised into four types: major depressive disorder, dysthymic depressive disorder, bipolar affective disorder and cyclothymic depressive disorder. Major depressive disorder and dysthymic disorder are both unipolar. Bipolar affective disorder and cyclothymic disorder are both bipolar.

*Major depressive disorder* is characterised by persistent and recurrent episodes of sadness and depression, without any occurrence or history of manic or elated mood states. People might lose interest in all or most activities and pleasures that were enjoyed previously. In addition to very negative emotions, such people will become socially withdrawn, unmotivated, slow in thinking and ineffective in decision-making. They experience a slowing down of motor behaviours, develop a very negative self-image, and feel self-blame and guilt. Physical energy is low, and sleeping and eating problems, accompanied by weight loss, occur. Major depression might go hand in hand with other problems such as anxiety and substance abuse. Major depressive episodes may last for months or years, may recur, but can be resolved sooner with treatment.

*Dysthymic depressive disorder* is a mild but persistent form of depression and might last for longer periods of time.

*Bipolar affective disorder or manic-depressive psychosis* is characterised by alternating manic episodes (excitement and activity) and depression. These diverse emotions often fluctuate, or a person might be either depressive or manic for long periods, sometimes interspersed with “normal” periods. In general, manic-depressive disorder is of shorter duration than major depressive disorder and might also be resolved more abruptly, but some people experience recurrent episodes. The depressive episode might manifest all the characteristics of the major depressive disorder. The manic episodes might be characterised by heightened, even uncontrollable, feelings of energy, optimism and euphoria, to the point where intense demands are made on other people in social interactions and sufferers might even become physically destructive. Such people might also experience delusions and hallucinations, and show poor judgement in social interactions, decisions and daily activities.

*Cyclothymic depressive disorder* is characterised by a chronic or continuous mood disturbance with numerous fluctuations between manic and depressive episodes.

*Suicide* is not a psychological disorder in itself, but is associated with psychological disorders, especially mood disorders. It may also result from intense feelings before, during and after certain traumatic events, for example divorce and work loss. Suicidal behaviour results in people killing themselves or having unsuccessful attempts at suicide.



**Figure 20.6** Mood changes.

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### 20.5.6 Dissociative and somatic disorders

In these disorders mostly no causes or logical medical and psychological explanations for the conditions can be provided, which make some experts refer to it as diseases of the unconscious ( Nevid et al., 2008; Burke, 2009).

*Dissociative disorders* will manifest when the afflicted person experiences dissociation or disruption of memory, conscious life or identity, which results in identity loss or diffusion as a whole person. Examples of these are:

- *dissociative identity disorder* (assumption of two or more personalities)
- *dissociative amnesia* (memory loss of important information)
- *dissociative fugue* (travel to new locations, uncontrolled memory loss of information and identity)
- *depersonalisation disorder* (derealisation, detachment from own identity and body).

“*Soma*” means “body”, and *somatic disorders* refer to patterns of behaviour in which the individual complains of vague physical problems, such as difficulty in breathing, or paralysis in a body part, without there being any proof or explanation of an actual organic cause and in context of a person presenting with a long and complex medical history. This is in contrast to psycho-physiological disorders, in which real physical diseases such as asthma and ulcers may have been caused by psychological factors. Examples of illness-endorsing behaviours insomatic disorders are hypochondriasis, malingering, factitious disorder, body dysmorphic disorder, pain disorder and somatisation disorder, in which symptoms or illness are misinterpreted, faked, fabricated or cannot be explained. In conversion disorder, often considered to be a dissociative disorder, people may be impaired with regard to physical functioning (for example, not being able to write or talk) which is not faked, but there is no logical organic cause or explanation. Conversion disorder and all the other somatic disorders are rather related to psychological causes (for example, coping with anxiety) or tendencies to obtain *secondary gain* from faking illness, such as avoiding duties or being pitied.

### 20.5.7 Schizophrenia and other psychotic disorders

Schizophrenia, paranoia and affective or mood psychoses are often referred to as *functional psychoses*, to distinguish them from conditions with organic causes. Psychosis is the gravest degree of psychological disorder and comprises a severe degree of *psychological disorganisation*, including thought, attention, perceptual, emotional, motor and behavioural impairments (Nevid et al., 2008; Kowalski and Westen, 2011).

*Schizophrenia* refers to a psychotic condition that can develop in various stages and that has various causes. In general, it is characterised by the following

primary behaviours and symptoms:

- poor everyday functioning in comparison with previous levels of functioning
- disorders of language and communication
- disorders of thinking (delusions)
- disorders of perception (hallucinations)
- emotional disequilibrium and inappropriate emotions
- identity disorientation
- disordered and poor motivation
- unrealistic relationships with others and the world
- disorders of motor behaviour
- disorder of attention.

Schizophrenia is classified into four types.

- *Paranoid schizophrenia* is characterised by absurd and illogical delusions as well as delusions of grandeur or persecution. Owing to disordered intellectual processes and poor judgement, patients' behaviour can become dangerous to themselves and others.
- *Catatonic schizophrenia* has as its main characteristic a motor-behaviour disorder that may involve extreme withdrawal and stupor (periods of total inactivity), or extreme forms of excitement and activity during which the person can also be dangerous.
- *Hebephrenic schizophrenia or disorganised schizophrenia* manifests severe disintegration of the personality, for example, total emotional blunting or inappropriate emotions, infantile and sometimes vulgar and bizarre reactions, as well as incoherent speech and thinking.
- *Simple schizophrenia*, which often manifests at a young age (roughly adolescence), is characterised by diminishing interest in life, decreased motivation, emotional blunting and social withdrawal. Symptoms such as moodiness, irritation, hypochondria and personal untidiness are also encountered. Delusions and hallucinations are not common. One rather finds a pattern of inappropriate and inadequate behaviour. If such people function outside hospitals and institutions, this mostly happens under the protection of family members. Antisocial and sexual offences also occur.

With regard to the progression of schizophrenia, *process schizophrenia* refers to schizophrenic conditions that develop over a long period, whereas *reactive schizophrenia* might have a sudden onset (for example, owing to a death in the family, financial losses or pregnancy).

Type I schizophrenia refers to so-called “positive symptoms”, for example, sudden onset, only slight dissociation, delusions and hallucinations, and good reaction to medication and treatment. In contrast, Type II schizophrenia refers to negative symptoms such as a long period of development, social withdrawal, emotional bluntness, intellectual deterioration, and poor response to treatment (Wilson, Nathan, O’Leary and Clark, 1996; Halgin and Whitbourne, 1997).

Related to schizophrenia are delusional disorder, brief psychotic disorder, schizophreniform disorder and schizo-affective disorder (Nevid et al., 2008).

The *delusional disorder* is similar to paranoid schizophrenia in some ways, but is characterised by a protracted, complex, logical and well-arranged delusional system, particularly of grandeur and persecution. The sufferer, who appears to think and react emotionally in appropriate ways, firmly believes in particular matters and might even convince others of these beliefs and so acquire followers.

As indicated, in cases of schizophrenia and delusional disorder, delusions and hallucinations may also occur (see the box below).

### **Delusion or hallucination?**

A delusion is an idea or belief that is in no way related to truth or reality, for example, a paranoid patient believing that he is a particular famous king (the delusion of grandeur) or that people want to harm or persecute him (the delusion of persecution).

A hallucination is an inaccurate observation without the existence of a corresponding stimulus. For example, the person hears voices and noises, and sees and smells things that do not exist.

## **20.5.8 Cognitive disorders and disorders related to age**

*Cognitive disorders* differ from anxiety disorders and psychoses in that the symptoms predominantly involve a marked change in prior functioning, especially with regard to orientation, thinking and memory, and the causes are biological in nature.

Cognitive disorders are the result of some or other impairment of brain functioning, such as injuries, intoxication and congenital brain dysfunctions and the influence of age deterioration. The type of psychological or behavioural disorder is determined particularly by the nature and locality of the brain lesions.

The main cognitive disorders are:

- delirium, which mostly relates to a temporary and fluctuating states of mental confusion and consciousness
- dementia, which entails a change in personality, loss of emotional control and the progressive loss of cognitive functions such as memory, reasoning and thinking, which result in a person being unable to do even simple and routine tasks. Well-known forms of dementia are Alzheimer's disease, as well as Parkinson's and Huntington's diseases
- mnesic disorders involve loss of memory without other cognitive impairments being present, and an inability to learn new material or to recall information from before the memory loss.

In some cases the early onset of decreasing cognitive competencies owing to age might be a problem for employees in later stages of their careers. However, this may represent normal deterioration with age and not necessarily relate to cognitive and age-related disorders. Disorders and problems related to age are anxiety, depression, drugs, sleep problems, dementia (for example, Alzheimer's disease) with deteriorating loss of memory, intellectual and social functioning and other symptoms), aphasia (problems with talking and understanding language) and various problems with regard to vascular dementia (strokes or brain damage resulting from blood-vessel blockage and short supply of oxygen).

### **20.5.9 Eating and sleeping disorders**

Eating and sleeping disorders are related to either excessive or too little of the behaviours and habits associated with eating, weight control and sleeping. *Eating disorders*, for example bulimia nervosa, anorexia nervosa and binge eating manifest mostly in young people, especially women. Eating disorders involve an over-preoccupation with and related anxieties about weight control and maladaptive ways of eating and other methods of keeping weight down. *Obesity* (or over-weight) is viewed as more of a chronic disease and related to factors such as genetic disposition, fat cells and metabolic rates, lifestyle and psychological factors. *Sleeping disorders* involve dyssomnias, with maladaptive patterns of the amount, timing and quality of sleep, whilst parasomnias are related to abnormal physiological reactions during sleep, for example nightmare disorders, sleep terror disorder and sleepwalking disorder.

### **20.5.10 Sexual and gender identity disorders**

*Gender identity disorder (GID)* involves a person's psychological sense of being female or male. GID (also referred to as transsexualism) relates to experiencing conflict with regard to expressing their biological sex and one's current gender identity. GID may be manifested in cross-gender interests like cross-dressing, and play, without sexual arousal being the motive. Gender identity confusion may exist when a person with GID feels that he or she is in the wrong body and is forced to act in traditional gender roles. Occasional gay or lesbian sexual preferences may be acted out, and GID may, in some cases, result in reassignment surgery.

*Sexual dysfunctions* involve aspects relating to sexual interest or desire, and with responses such as arousal, orgasm and sexual pain responses, which can become disorders in their own right.

More serious sexual disorders relate to *paraphilia* and involve deriving sexual pleasure from non-human objects, pain, humiliation, children or other non-consenting people. Examples are exhibitionism, fetishism, paedophilia, sexual sadism and sexual masochism.

In workplaces, GID may cause discomfort for persons with gender identity issues in the form of negative communication and discrimination. Gender stress and abuse in the form of sexual harassment is also an important issue and many companies have strict policies on it, whilst legal action is often taken because of it. *Sexual harassment* means people are subjected to unwelcome sexual talk and remarks, sexual proposals, gestures, touching and demands for sexual favours, often as a condition for doing business, achieving employment, receiving promotion and being retained in a position. Sexual harassment occurs not only in formal workplaces, but also between professional people and clients, and in places of recreation and sports training.

### **20.5.11 Disorders diagnosed in infancy, childhood and adolescence**

The diverse disorders of childhood and adolescence are determined by the stage of development and socioeconomic circumstances. In Chapter 4 it is indicated that fixations in development, developmental tasks not acquired, and conflicts not resolved during childhood may influence later adult and work behaviours. Childhood disorders may relate to such developmental problems, however disorders of childhood and adolescence are more serious psychological problems and illnesses (Nevid et al., 2008; Kowalski and Westen, 2011). These difficulties involve behavioural disorders in children associated with emotional and

behavioural problems, but may also have an organic basis. Well-known disorders of childhood and adolescence are mental retardation, learning disorders, attention-deficit and disruptive conduct disorders, anxiety and mood disorders, pervasive developmental disorder, communication disorder and elimination disorder (problems controlling urination). For employers, the unsuccessful resolution of childhood problems might manifest in problematic occupational behaviours in adults, for example personality and behavioural problems, negative work attitudes and commitment, as well as deficient cognitive, learning and social skills (see [Chapter 4](#)).

### 20.5.12 Culture-bound syndromes

It is increasingly recognised that culture is one of the most important determinants in the formation and expression of behaviour, and for this reason culture-bound syndromes are also considered in psychiatric classifications. *Culture-bound syndromes* (CBSs) are not an official category in the DSM, but are integrated in the description of psychological disorders and classification systems if applicable.

Though many psychological disorders manifest similarly in different cultures, many variations also occur, as described in specific culture-bound disorders with specific cultural names (Simons and Hughes, 1985; American Psychiatric Association, 1994; Halgin and Whitbourne, 1997; Louw and Edwards, 1997:702; Kaplan, Sadock and Sadock, 2001; Nevid, Rathus and Greene, 2008). CBSs occur in many variations within and across cultures as aberrant behaviour, troubling experiences, illnesses or afflictions, and might or might not have some correspondence with diagnostic classifications in systems such as the DSM (see the box below).

#### **ETHICAL READER: Talking to the dead – normal?**

Some phenomena, such as communicating with the dead or with spirits, are in some cultures considered to be “normal”, whilst in contemporary psychiatry this might be seen as psychotic, delusional or as the manifestation of hallucinations. The same differences between cultural perceptions might exist in cases where illness is explained according to hexing, witchcraft, voodoo and behaviours such as cannibalism (windigo/whitigo amongst North American Indians).

Some CBSs are used by healers and therapists in particular cultures, for example the traditional healers (*sangomas*) in South Africa are increasingly recognised in training, in treatment systems and by medical aid funds. Table 20.3 contains examples of CBSs, with DSM equivalents in some instances.

**Table 20.3** Examples of culture-bound syndromes

Culture-bound syndromes	DSM-equivalent
<b>South Africa</b> (Zulu and Xhosa): intloko engxolayo	anxiety
ukuphuthelwa	major depression
isthuthwane	epilepsy
phambana	psychotic disorder
amafufunyana	possessed by spirits (not in DSM)
<b>Rest of Africa:</b> zar (Ethiopia, Egypt, Sudan)	possessed by spirits, confusion, dissociation (not in DSM)
brain fog (West Africa)	problems of thinking, remembering and concentrating, mostly by students (resembling anxiety, depression and somatoform disorders in DSM)
boufée delirante (West Africa)	outbursts of aggressive, excited, confused behaviour (brief psychotic disorder in DSM)
<b>Other areas of the world:</b> koro (Malaysia), taijin kyufusho (in Japan), also in China, Thailand, etc.	anxiety/fear of retracting genitalia or being offensive to people (not in DSM, possibly related to social phobia)
shenjing shaijo (China)	major depressive disorder (some differences from DSM)
rootwork, evil eye, witchcraft (Caribbean, Latin America)	not recognised in DSM
amok (Malaysia), mal de pelea (Puerto Rico) and cafard (Polynesia)	change in identity leading to violent, aggressive behaviours (not in DSM)
grisi siknis (Miskito Indians) or piblotog (arctic hysteria) in Greenland	aimless running, excitement, anxiety, anger, dissociative episodes

## 20.6 WORK DYSFUNCTIONS AND ORGANISATIONAL HEALTH

With regard to the impairment of work performance, Lowman (1993) introduced a *psychopathology of work*, in which he indicated the interaction between psychological or emotional disturbance and work dysfunctions, the latter being an impairment or experience of non-coping in work performance owing to emotional factors in the individual or the interaction between the person and the work environment. Some work dysfunctions in Lowman's classification resemble psychological disorders in some ways according to the DSM classification. However, the DSM classification does not really provide for psychological work dysfunctions. In some of its axes (such as axes I, IV and V) occupational aspects are only vaguely indicated as contributing factors or may relate to the symptoms.

Lowman also emphasised the necessity for psychologists to determine and correctly assess the relationship between psychopathology and work performance, in order to make accurate "diagnoses" and for health-promoting purposes.

P. Clarkson (1990) described a model to assess whether the individual employee or the total organisation is dysfunctional or growing. It is, for example, unproductive to use career counselling or performance feedback for employees with severe emotional problems related to depression, schizophrenia, paranoia, personality disorders and severe panic and anxiety, if these emotional and behavioural problems are not addressed first.

R.E. Campbell and J.V. Cellini (1981) explain possible psychological problems in career development in the various stages of a career and during work performance in organisations, and there are some similarities to Lowman's classification.

Work dysfunctions can be discussed according to a broad spectrum of problems, but it is useful to emphasise the classifications of R.L. Lowman (1993), L. Sperry (1996) and R.E. Campbell and J.V. Cellini (1981).

### 20.6.1 Disturbances in the capacity to work

These dysfunctions refer to employees' work motivation, attitudes and willingness to be involved in any work. The type of work orientation people have can be traced back to the socialisation and reinforcement of work and productive roles, that is, the work ethics, values and attitudes people have

acquired in their environments. The capacity to work can also refer to people's career maturity, that is whether they have acquired the necessary knowledge, skills, abilities and other attributes to fulfil work responsibilities and the way that these behaviours have been instilled in them. The capacity to work, however, might also be influenced by the characteristics of jobs and the demands of work environments.

### 20.6.2 Patterns of undercommitment

Patterns of *undercommitment* are recognised by underinvolvement in the job, in comparison to what could be expected from the employee (Lowman, 1993). Some of the causes of work underinvolvement are psychological conflicts in people's developmental experiences in the home, at school and, even, at work, which leave people afraid of rejection and reluctant to perform. According to Lowman (1993), these conflicts might be misdirected anger at authority, self-esteem problems, and fear or reluctance to compete.

Although divergent criteria make it difficult to define *underachievement*, it can be regarded as any behaviour by an individual that does not satisfy job requirements and expected standards in terms of skills and actual potential to perform. Steinmetz (1969) identified underachievers in terms of resistance to change, moodiness, disorganisation, feelings of being indispensable (contentedness), isolation, an inability to communicate, poor sense of responsibility, intolerance, an apologetic attitude, a highly strung nature, unimaginativeness and defensive behaviours.

*Temporary production impediments* and procrastination also refer to an inability to perform to standards. In procrastination, employees often postpone the initiation or timely completion of tasks.

Uninvolved employees might also be *misfits* in terms of being under- or overqualified and occupational and organisational characteristics, which could lead to boredom, dissatisfaction and underachievement.

Undercommitment is often also recognised by *fear of success and fear of failure*, conditions which could also be interactive (see the box below).

#### **Fear of success and fear of failure**

Fear of success (FOS) relates to an avoidance of and anxiety about being successful or a tendency to diminish achievements. This may manifest differently in terms of personality profiles, culture, age,

gender and occupational groups.

Fear of failure (FOF), or hostile press, in contrast, refers to people feeling threatened and afraid of being rejected if they fail to achieve goals. Such fears might lead to unhealthy schedules of work and efforts to impress others instead of working effectively.

Both fear of success and failure may relate to enduring anxiety in people, or to previous experiences with either success or failure that were difficult to cope with.

*Absenteeism* or withdrawal behaviours could also be manifestations of undercommitment, especially if this type of behaviour points to anti-organisational behaviour such as dishonesty, faking, laziness and disloyalty.

Absence from work could be a main indicator of an unhealthy organisational climate and organisational stress, and it involves great costs, especially with regard to the loss of productivity. Illness, especially respiratory problems, stomach disorders, gynaecological problems (menstruation, menopause or spontaneous abortions), and stress conditions (such as headaches, insomnia, fatigue, heart problems and endocrinal disorders) are responsible for most absences.

Follman (1978) referred to the psychological determinants of absence by describing the characteristics of people with an extensive record of absences. These characteristics are shown in Figure 20.7.



**Figure 20.7** Follman's characteristics of people with an extensive record of absences.

In present-day language the term “presenteeism” is used to indicate “psychological absence” or employees who are physically present at work, but are not sufficiently motivated to be optimally productive, and just attend work to enjoy the benefits and advantages.

*Personnel turnover* refers to employees leaving or withdrawing from employers for various reasons to take up employment at another employer or to

become self-employed. Emotional conditions such as anxiety, depression, neuroses, personality problems, alcohol and drug addiction, physical diseases and age can contribute to personnel turnover. At work, according to J.B. Miner and J.E. Brewer (1990), personnel turnover relates to general job dissatisfaction caused by negative attitudes towards management, poor working conditions, remuneration, the feeling of being treated unfairly, and work-group attitudes.

### 20.6.3 Patterns of overcommitment

Compared to undercommitment, *overcommitment* seems to be an intense overinvolvement and very strong identification with work, which in many cases results in physical and health problems. It is *not self-engagement*, which refers to a passionate positive productive orientation (Britt et al., 2007). A problem with overcommitment is that such behaviours are often rewarded in organisations, for example paying over-time or bonuses, which might even reinforce the existing stressful work patterns, resulting in health problems that people do not attend to until it is too late.

The reasons for overcommitment include:

- anxieties as a result of low self-esteem
- strong abilities and creative powers
- aspirations that are too high
- obsessive-compulsive personality characteristics
- efforts to compensate for failures or childhood trauma
- avoidance of intimate relationships or other social and non-work roles (Lowman, 1993).

*Workaholism*, an obsessive-compulsive addiction to work roles, is the description applied to employees who are always working, without necessarily achieving. For example, both R.L. Kahn (1981) and W.E. Oates (1971) associated workaholism with work addiction, a compulsion or irrepressible need to work continually. Kahn, however, distinguished between workaholism and *work addiction* in the sense that the work addict enjoys work, whilst the workaholic is totally unable to manage work time effectively.

E.M. Gherman (1981) described workaholism as a stress reaction to the pressure of time, and as a defence mechanism that is employed in an attempt to associate work overload with success, when it is in fact a withdrawal reaction to, for example, unpleasant domestic problems or an inability to relax. Gherman portrayed the workaholic's actions as aimless toil and labour, as the work is

never really mastered or completed.

M.M. Machlowitz (1978) differed from viewpoints that overemphasise the time factor. According to her, the nature of the workaholic's actions is such that time, and more specifically uninterrupted time, is hard to determine. The workaholic should rather be recognised by his/her relationship with work, namely by the fact that he/she works more than is in any way necessary. Machlowitz (1978) outlined the following characteristics of workaholics:

- They are intense, energetic, competitive and drive themselves. The motivation for this is not necessarily to receive financial gain – it can be to obtain knowledge or purely to be competitive.
- They seriously doubt their own abilities, often in spite of an attitude of apparent self-confidence and arrogance, and hard work can be an attempt to compensate for inabilities.
- They prefer work to relaxation, hate being away from work, find weekends and holidays depressing and fear the day of retirement. Workaholics will use any place to work.
- They use their time efficiently, sleep no more than six hours, often combine meals with work, try to save time (for example, by not waiting for elevators) and use note books and computers to organise their work and time.
- They draw no clear distinction between their work and recreation activities. If they do have hobbies or take part in activities such as jogging, they do them with the same intensity as they do their work.

The so-called “Type A”, “Type C”, “Type D”, and “hardy personality types” represent different ways in which people react in the work situation, perform tasks and cope with stress (Sulsky and Smith, 2005; Flett, 2007).

The *Type-A personality* is associated with a high risk factor for coronary diseases and other stress-related problems, and the following behaviour patterns (Friedman and Rosenman, 1974; Eysenck, 1991a; Lowman, 1993):

- *intense aspirational behaviour and conscientiousness* (This style of behaviour is characterised by traits such as high ambition, strict performance criteria, willingness to work hard, suppression of tension, working long hours, displaying very responsible behaviour, linking production to self-esteem, and competing even during recreation.)
- *an irrepressible tendency towards urgency* (This is characterised by virtually impossible time limits for the completion of tasks, impatience, restlessness, a feeling and sensation of constantly working under pressure, doing everything quickly (for example, eating, walking and talking fast), quick emotional

reactions, attempting to do several things at once, and even attempting to project occurrences.)

- *a lack of caring for other people in interpersonal relationships*  
(Characteristics of this style of behaviour include hostility, sometimes aggression and anger, egotism, difficulty in following someone else and accepting others' points of view, and often displaying frustrated reactions towards others with less insight, should they receive negative feedback on their interactions.)

The Type-A personality continually wants to be in control. Sometimes, however, in the midst of unrealistic aspirations, he/she simply does not command the physical, emotional, cognitive and social adjustment mechanisms, with a resultant loss of control. This may lead to, amongst other things, total helplessness and stress reactions, particularly in the form of coronary heart diseases. Roseman (1982) pointed out, however, that the behavioural problems of the Type-A person should never be likened to those of the person with anxiety (Friedman and Rosenman, 1974).

The opposite of Type A is sometimes referred to as the *Type-B personality*, which indicates a more calm and relaxed orientation with lesser emphasis on performance and more on personal relationships.

The *Type-C personality* refers to people who are emotionally contained and may be prone to cancer and faster disease progression.

The *Type-D personality* refers to distressed personality profiles with behaviour patterns characterised by negative affectivity and social inhibition. This personality type is associated with a high risk for cardiovascular diseases.

The *hardy personality*, in comparison to the A, C and D types (which reflect vulnerability), refers to an individual who shows resilience and inner resources (self-control, commitment and challenge) that will promote health.

*Burnout*, as initially defined by H.J. Freudenberger (1974) and confirmed by later research, refers to work overload and patterns of overcommitment that influence the work behaviour and the physical and mental health of workers (Büssing, 2000; Densten, 2001; Schreuder and Coetzee, 2011) (see box below).

## **Burnout**

Burnout was found particularly in the case of people-oriented groups such as medical practitioners, nurses, psychologists and attorneys

(Evans and Fischer, 1993; Büssing, 2000; Levert, Lucas and Ortlepp, 2000; Densten, 2001; So-Kum Tang, Wing-Tung, Schwarzer and Schmitz, 2001; Schaefer, 2003).

C. Maslach's definition (Muldary, 1983:1) of this phenomenon shows that a combination of symptoms, behaviour and attitudes can be involved:

The loss of concern for the people with whom one is working includes physical exhaustion and is characterised by an emotional exhaustion, depersonalisation (mental distance) and reduced personal and professional accomplishments, in which the professional no longer has any positive feelings, sympathy, or respect for clients or patients.

Most descriptions of burnout indicate physical, psychological (emotional) and social exhaustion and depersonalisation, which influence performance, relationships, physical well-being and health (Muldary, 1983; Maslach and Jackson, 1986; Odendaal and Van Wyk, 1988).

Table 20.4 illustrates the wide range of physical, psychological and behavioural problems that can be associated with burnout. Shreuder and Coetzee (2011) cite research and discuss job and occupational burnout in some detail, and relate it to many stress factors in the person and work environment, most of which are included in [Figure 20.2](#).

**Table 20.4** Indications of burnout Source: Adapted from Muldary (1983:6)

Physical	Psychological	Behavioural
Fatigue Sleep disturbances: difficulty in sleeping and getting up Stomach ailments Migraine headaches Frequent colds, flu Lingering colds Backaches Nausea Muscle tension Shortness of breath Frequent injuries	Feelings: <ul style="list-style-type: none"> <li>• Anger</li> <li>• Boredom</li> <li>• Frustration</li> <li>• Depression, anxiety</li> <li>• Apathy</li> <li>• Guilt</li> <li>• Suspicion</li> <li>• Helplessness</li> <li>• Pessimism</li> <li>• Irritability</li> </ul>	Dehumanisation of clients Victimisation of clients Critical, blaming behaviour Defensiveness Impersonal behaviour Poor communication Derogatory perceptions Physical distancing Withdrawal, isolation Postponing behaviours Sticking to rigid rules Clock-watching

Weight problems Weakness Change of eating habits	<ul style="list-style-type: none"> <li>• Resentment</li> <li>• Hopelessness</li> <li>• Attitudes:</li> <li>• Cynicism</li> <li>• Indifference</li> <li>• Self-doubt</li> <li>• Loss of empathy</li> <li>• Poor concentration</li> <li>• Discouragement</li> <li>• Moodiness</li> <li>• Low self-esteem</li> </ul>	Absenteeism Making mistakes Unnecessary risks Substance use Marital and family conflict Conflict with co-workers Workaholism and obsessiveness Humour as a buffer from emotions Decreased job efficiency Suicide Overcommitment or undercommitment
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#### 20.6.4 Work-related anxiety, fears and depression

Anxiety, fears and depression might be related to personality traits, or possibly symptoms of more serious emotional problems. The feelings and emotions involved in these conditions might relate to generalised feelings of anxiety and depression, such as feelings of not being able to do things, or as performance anxiety, for example a manager being afraid to write annual reports or to address groups. Anxieties and depression, whether viewed as personality traits or as a state of mind, can impair work performance, at varying times and to different degrees. The fact that anxiety is characterised by physiological symptoms, worry and strong emotions influence the physical, cognitive and interpersonal performance areas in work. In many studies depression has been related to problems in work experiences, more so in women than men, and more in younger than older workers (Heim, 1991; Firth and Hardy, 1992; Warr, 1992).

Although much research is still needed on work-specific anxiety and depression, because many factors in the employee and work might modify the manifestation and consequences, it is clear that jobs and their attributes, in interaction with some individuals, provoke anxiety (Lowman, 1993; Broadbent, in Argyle, 1995). Changes in personal life situations, such as divorce, and also in work situations, for example mergers and changes in labour composition, can cause many “adjustment dysfunctions” in employees, with accompanying fears, anxieties and physiological illnesses.

Fears of specific situations will impair work seriously, as in phobias, where employees, for example, are fearful of being with other people, of working in high, narrow or deep locations, or of contamination.

#### 20.6.5 Personality and behaviour dysfunctions at work

Personality is increasingly associated with psychological and physical health

behaviours, in addition to its association with personality disorders (Friedman and Booth-Kewley, 1987; Friedman, 1990; Lowman, 1993; Flett, 2007; Nevid, Rathus and Greene, 2008). In models such as the Constitutional-Risk-Factor Model and the Illness-Behaviour Model, and in the stress generation and the disease-prone-personality approach, it seems as if particular underlying personality factors might be related to or predispose particular illnesses (Friedman and Booth-Kewley, 1987; Friedman and DiMatteo, 1989; Eysenck, 1991a; Smith and Gallo, 2001; Weiten and Lloyd, 2003; Flett, 2007). In this regard too, a great deal of research supports the relationship between personality types, cardiovascular diseases and other diseases, and also that negative emotions are linked to stress and other diseases.

Work can be influenced by attributes of all *personality disorders*, such as narcissism, rigidity, paranoia, avoidance, interpersonal difficulties, obsessive-compulsiveness, antisocial behaviours, self-centeredness, passiveness and aggression. Many dismissals and disciplinary actions at work are related to personality clashes. Examples are insubordination, tardiness, difficult interpersonal behaviours, workplace aggression and bullying, rebelliousness, disobedience of rules, sabotaging behaviour, chronic lateness, unacceptable acts (such as sexual harassment) towards co-workers, dishonest behaviours (such as theft and fraud), substance abuse, gambling, and the inability to accept and work under authority.

Neff (1977) identified five types of *behavioural styles* or reactions in the work situation that may prevent correct attitudes to work from developing, and which are the consequences of the ineffective development of a work personality and a productive role:

- poor motivation and a negative concept of work and of work roles
- a usual response of fear and anxiety at work
- a usual response of open hostility and aggression at work
- behaviour in the work situation that is mainly dependent and immature
- reactions at work that are socially naïve
- the reserved (apathetic) type, who shows indifference, emotional unresponsiveness, non-involvement and a lack of vitality
- the self-deprecatory type, characterised by much self-criticism and a lack of belief in his/her own capabilities.

M. Wheeler (1994) and W.T. Martin (1989) typified difficult behaviours in *problem employees* along lines that coincided with aspects of personality malfunction. They mentioned the following types of behaviour:

- passive-aggressive behaviour (silent judges, avoiders, information-keepers)
- hostile-aggressive behaviour (explosive, insulting attackers, users of hidden sarcasm)
- procrastination (untruthful people, idlers, perfectionists)
- negative-complaining behaviour (whiners, idea-destroyers, guilt-givers)
- arrogant behaviours (credit-stealers, know-alls, show-offs).

With regard to the effects of personality and behaviour problems, T.A. Judge and J.E. Bono (2000) indicate that the influence of personality on job satisfaction will be moderated by the nature of job characteristics and management.

### **20.6.6 Work and non-work conflicts**

The influence of *non-work life roles* (such as marriage, parenting, family roles, religion, leisure and societal responsibilities) can have spillover effects at work, whilst work roles also influence non-work roles. Family life and work define people's identities (their self-concept) the most and should be supportive of each other. Families are responsible for providing family members with a legacy of progression and life qualities (careers, work, housing, finances, education and culture), whilst one of the main ego-values for adults in work is to provide sufficiently for dependants through some form of work (Schreuder and Coetzee, 2011). These supportive roles are traditionally defined in a way that generally associates males with the working and provision function, and females with providing the caring function (they are "homemakers" and raise children). But these traditional roles are changing and are sometimes reversed which in itself may have potential for conflict.

It seems evident that the accumulation of more roles in the life of working couples will bring more opportunities, but also more stress. *Interrole conflict* causes the responsibilities of work and family to be incompatible, whilst role overload between the work and home might cause couples to feel overburdened, which will adversely affect the family. If the work-family interaction or the family context is negative and disruptive for an individual or group, it can, by itself, be viewed as a psychological health problem (Greenhaus and Parasurman, 1989; Lowman, 1993). Research (Eckenrode and Gore, 1990; Loscocco and Rochelle, 1991; Cooper and Payne, 1994; Frone and Russell, 1997) shows that non-work roles can have positive and negative influences in work satisfaction and other work experiences. Working couples often experience higher levels of work satisfaction than single working parents. Such outcomes are obviously

determined by the types of relationship at home and work, as well as the work climate experienced (for example, possible role conflicts, work overload and role ambiguity).

Other factors that influence the stress between work and family are:

- the family members' attitudes towards their own and others' jobs
- division of work and social roles at home
- children and child-raising practices
- other responsibilities.

Greenhaus and Beutel (1985) described three main *types of work-family conflicts*:

- conflicts related to time constraints
- conflicts caused by strain (for example, anxiety, irritability and stress, which negatively impact on other roles)
- conflict related to one or more of the family members' behaviour, which might not be what the other family members want or expect.

More people are also working from home, which may create more involved interactions and require ongoing adaptive reactions amongst family members.

Greenhaus and Parasurman (1989), and Thompson and Bunderson (2001), concluded that the influence of stress on family and work roles amongst career couples is very much determined by task characteristics in the workplace, by work and time schedules, and by the importance of the work for every person. Work overload, for example, might contribute to the mother's perception and guilt feelings of having to fulfil various life-roles. Work role stressors might have spillover effects at home in reactions such as frustration, anger, irritability, anxiety, fatigue, sexual disinterest, complaints of illness, excessive use of substances, and an increase in other stress-related diseases. In contrast, if roles at home are distributed more equally between parents and couples, and spouses support each other in recognising the importance of their jobs, multiple roles can facilitate job and general life satisfaction.

### **20.6.7 Career-development problems**

In many cultures people have to face extremely high expectations as far as their careers are concerned and their ability to provide. Any inability to develop careers (for example, failure to be promoted, and uncertainty in making choices) is regarded as a problem and as a weakness that needs to be rectified.

*Career maturity* refers to the level of people's vocational development,

vocational attitudes and decision-making skills at different stages of life. Career maturity is a function of people's developmental history, age, sex, behaviour styles and socioeconomic factors. Their inability to make choices or to perform developmental tasks at specific points in their career development might lead to stress and emotional problems.

*Vocational uncertainty* has many causes, including adjustment problems, indecision, incongruence between one's personal attributes and the requirements of the job, behavioural traits (such as dependence and choice-anxiety), a lack of information, and intrapersonal and interpersonal conflicts. These factors might determine:

- people's career concepts
- their attitudes to work or their work ethic
- their attitudes to learning
- their attitudes to employers
- the positive or negative view held about their roles.

All of these factors will determine peoples' attitudes and expectations on entering jobs, adapting to them, and developing in them.

People's job satisfaction and adjustment are also determined by the emphasis they and employers put on career development, and what happens to the employees in terms of work-role fulfilment, task performance, job changes, promotion and status, and by events such as the organisation's life cycle, retirement, unemployment and economic recessions (Isabella, 1988). The phenomenon of *career plateauing* might cause emotional problems, because an employee might realise that for some personal or other reasons he/she does not get promotion in a job or in a company (Rotondo and Perrewé, 2000; Schreuder and Coetzee, 2006).

Apart from choosing an occupation, entering a career and later retiring, the so-called "midlife crisis", at the age of approximately 40 years, is regarded as the most important period of adjustment for some people. This mid-career crisis is brought about particularly by people's uncertainty about future career development, fear of ageing, and questioning of their self-esteem and the purpose of life (Schreuder and Coetzee, 2011). Manifestations of this stage include the changing of jobs, substance abuse, poor interpersonal relations, anxiety, depression, hypochondria, marital problems, the adoption of a new and sometimes strange lifestyle, problems with physical health and appearance, and a decrease in sexual energy. In women this phase is likely to coincide with menopause and the resultant physical and emotional problems (Mercer, 1989).

Some refer to this period in the lives of men as “the male menopause”. Much dispute still exists about the validity of the mid-career crisis phenomenon.

The approach of retirement and retirement itself also brings stress as a result of uncertainty, fears of not being cared for, boredom and feelings of worthlessness.

Campbell and Cellini’s (1981) *taxonomy for adult career problems* might overlap in some instances with some of the other work dysfunctions. However, in its description of four main areas of possible problems, it is more specifically directed at problems experienced during the various career transitions, and on entering organisations. This taxonomy (see Table 20.5) is based on many career-development theories and research on adult problems during career development. It is an attempt to identify career-development tasks and subtasks, and possible problems during the four stages of career development. Table 20.5 is only a summary of the original, which contains a number of specific aspects under each of the sub-facets (Campbell and Cellini, 1981:175–190; Lowman, 1993).

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**Table 20.5** Career and work-performance problems

<b>1. Problems in making career decisions</b>
1.1. Problems in getting started in a job
1.2. Problems in gathering information
1.3. Problems in generating, evaluating and selecting alternatives
1.4. Problems in the formulation of plans to implement decisions
<b>2. Problems in implementing career plans</b>
2.1. Problems with personal attributes of the individual
2.2. Problems with circumstances external to the individual
<b>3. Problems in organisation/institutional performance</b>
3.1. Deficiencies in skills, abilities or knowledge
3.2. Problems with personal factors
3.3. Problems with conditions of the organisational environment
<b>4. Problems in adjusting in and to the organisation</b>
4.1. Problems in initial entry into the job

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Source: Campbell and Cellini (1981:175–190)

### 20.6.8 Organisational wellness

*Organisational health* can be explained from different perspectives, all of which are interrelated (Lowman, 1993; Nelson and Cooper, 2007). F. Luthans *et al.* (2007) use the same criteria to assess employee and organisational health, namely, leading a life of purpose, good relationships and effective communication with other people, and positive self-regard and mastery. G.M. Spreitzer and K.M. Sutcliffe (2007) adds to this by describing the thriving organisation as a workplace where the collective organisation or corporation is continuously energised to learn and grow in a way that also allows employees to learn and develop too, as opposed to stagnating or being overwhelmed. A. Shirom (2007) describes vigour as a positive emotional state of enjoyment that will energise employees and organisations, and which will lead to good job performance, organisational effectiveness, and good physical and mental health. Schreuder and Coetzee (2011) also discuss employee and organisational well-being from a positive psychological stance and indicate how various strength concepts such as sense of coherence, self-efficacy, optimism, and coping relate to career and work performance.

Organisations often experience problems because of the demands of their interaction with internal sub-systems and external environmental systems. The complex structures and processes in an organisation are frequently the reason why it cannot adjust rapidly enough to change. In other words,

Lowman (1993) refers to problems that are due to dysfunctional organisational dynamics (such as culture, team work and personnel turnover), dysfunctional processes in the organisation (such as conflicts between mission and strategies, and unhealthy working conditions), and macro-organisational and external problems (such as unemployment and change).

With regard to these aspects, E.H. Schein (in Cox, 1991:1) defined *organisational culture* as the pattern of basic assumptions that a given group has established, discovered or developed in learning to cope with its problems of external adaptation and internal integration. If such cultural values are shown to have worked well enough to be considered valid, it will be taught to new

members as the correct way to perceive, think and feel in relation to those problems. The assumption here is that all functional and structural processes in an organisation according to which employees function have their foundation in basic organisational values.

An organisation's collective "personality" and individual behaviour patterns can be formed and maintained through the selection and promotion of certain types of personalities ("organisational men and women"). Phenomena such as "groupthink" and "dominant coalitions" that can influence decision-making in organisations can also be explained in terms of these phenomena. In this respect too, Hampden-Turner (in Carroll, 1997) explains corporate culture as a "hologram", in that all parts of an organisation are represented in each smaller segment. This implies that behavioural and relationship patterns are repeated, especially from the top down, in organisations. It is, for example, possible that the same negative attitudes and behaviours observed in management and between personnel and management are repeated when personnel negotiate with clients or other parties.

Another approach assesses organisational health according to the effectiveness of an organisation, the extent to which criteria for profitability or success are satisfied, or the successful attainment of business, service and societal responsibilities and research goals (Lowman, 1993).

Many authors explain specific maladjusted organisational behaviour (Kets de Vries and Miller, 1984; Ashforth and Lee, 1990; Dejoy and Wilson, 1995; Carroll, 1997). Kets de Vries and Miller's theory (1984) on *neurotic styles* and organisational pathology relates to the influence of corporate values. These authors see a similarity between *organisational pathology* and individual pathology as defined in clinical psychology and psychopathology, and as explained by psychoanalytical and psychiatric literature. According to these authors, top managers have specific fantasies and neurotic tendencies that can lead to organisational disorientation. Because top management, especially in centralised organisations, directly determines and influences organisational culture, climate, structure and processes, these negative tendencies have negative effects, although such orientations can also have positive effects. Specific types of manager will, for example, be appointed which may lead to undesirable uniformity and conformity. Individual employees' behaviour can also be detrimentally influenced.

These authors identify five "neurotic styles" that manifest themselves in five organisational types, that is, the paranoid, depressive, compulsive, schizoid and

histrionic types. In each of these types the management style determines the types of behaviour of people in the organisation towards others in the organisation, and towards people outside the organisation, the controls, and the decision-making and other business activities.

A systemic study of organisations (see [Figure 20.1](#)) that can integrate many approaches provides a useful framework for understanding and classifying organisational health and pathology. However, in the analysis of organisational health a few systemic principles need to be considered:

- Organisational pathology is determined largely by the context in which the organisation functions, as well as organisational paradigms such as corporate culture and the nature of employees.
- There is a systemic or circular correlation between workers' and groups' pathology (parts) and those of the organisation (Gestalt). Therefore, excessive control and rigid structures in organisations that, according to Kets de Vries (Gardner, 1987:301), suffer from "bureau-pathology", compel employees to attain goals in secretive and "unacceptable" ways, meaning that deviant ways become the norm. This pattern might ultimately influence the corporate culture and goals, and damage the image of the organisation in the outside world.
- In organisations with negative feedback patterns in which maladjustment may remain the norm, secretiveness and isolation from others and external systems can become a characteristic of the organisation, with consequent degeneration and the ultimate destruction of such a business.
- In terms of Gestalt laws and group dynamics, corporate culture or organisational personality (and therefore also organisational pathology) can be dominant without this necessarily being reflected in the individual's situation.
- In history, *groupthink* is associated with erroneous actions and decisions (for example, events in Nazi Germany and events leading to the Japanese attack on Pearl Harbour during the Second World War). In South Africa the processes of political democratisation could have started much earlier if decision-makers during the apartheid dispensation had listened to opposing voices. In the new political dispensation many problems now provide evidence that the initial beliefs in a true democracy or "we-ness" were too idealistic. The same applies to initial promises and plans about the institution of programmes in economic, educational, legal and land restructuring which have already had many failures because other decision-makers are not

involved.

### **Organisational and individual problems experienced in an organisation in conflict**

According to J. Krantz (1985), E.M. Gherman (1981) and C.F. Herman (1963), organisations that are in conflict or experiencing burnout may experience certain crises in a typical sequence:

- an increase in withdrawal behaviour (dissatisfaction, low production, absence and personnel turnover)
- an increase in and an intensification of conflict situations (looking for scapegoats, becoming negative)
- fewer communication channels (more isolation)
- an increase in authority structures, so that only a few people take part in decision-making
- greater stress for authority figures as authority becomes more centralised
- authority figures evading responsibilities as the stress increases (becoming dependent with little initiative)
- a decline in standards because of the stress effects on authority figures
- the further reduction of communication channels
- increasing conflict in management and other units in the organisation
- more people withdrawing from tasks and activities, and increasing job dissatisfaction because of the increasing conflict
- fewer communication channels for the collection and distribution of information as the conflict and problems increase
- the further increase of conflicts and withdrawal behaviour as organisational standards become even lower
- further withdrawal and less available information owing to the reduction of specific communications.

These sequential crises illustrate that organisational and individual problems could be interrelated, and that diagnosis and intervention need to take both into account.

## 20.7 PROMOTING AND MANAGING WELL-BEING AT WORK

Organisational effectiveness and employees' physical and psychological well-being should be equally important and are interrelated. Even amid efforts to ensure profitability and maintain the existence of organisations, two of the most important (and expensive) priorities of companies should be the promotion of employees' health and the combating of the destructive consequences of occupational diseases and psychological maladjustment. These are necessary priorities even if only because of the enormous incidence and direct and indirect costs of health issues for companies, society and individuals. The box below indicates possible tasks that I-O psychologists and workplace counsellors may fulfil in health promotion. Broadly speaking, these tasks of the I-O psychologist can be described as diagnostic, preventative and remedial, and as having a research function. All these actions should be directed at well-adjusted employees and their optimal growth too, but diagnosing and managing the problem employee at work and outside work is a necessary function and should not be neglected.

### **The tasks of I-O psychologists and workplace counsellors**

D'Alonzo and Belinson (Noland, 1973) and Carroll (1997) define the tasks of industrial psychological health services and the workplace counsellor as:

- diagnosing and treating the symptoms of workers with emotional conflicts in both serious and less-serious cases
- researching the factors that cause or support emotional maladjustment and monitoring the effectiveness of interventions
- training medical and human-resources workers to manage workers with emotional problems, and in how to act towards rehabilitated workers, and to conduct general health programmes for workers consulting with medical services on problem workers
- advising departments on the selection, placement and rehabilitation of workers with emotional problems or workers who have received treatment
- consulting with management and advising it on matters such as

- the policy on occupational health, and methods to cope with individuals or groups with emotional or behavioural problems
- facilitating organisational change regarding culture and attitudes towards health promotion
- mediating between employees, employers and external sources related to health matters.

Table 20.6 gives some indication of what could be done for *health promotion* in workplaces if all systems and processes in organisations are also directed at creating and maintaining a culture of wellness for all employees and the organisation as a whole. The ideal should be that psychological health criteria are included in standard human resources development and organisational functions (for example, selection models, skills training, interpersonal communication and skills, assertiveness and self-efficacy, stress and time management, coping skills, creativity, problem-solving, and change management).

**Table 20.6** Checklist of necessary conditions in organisations for wellness at work

Tick “yes” or “no” to indicate how you experience the presence of these aspects of health promotion in your work, or ask someone to complete the checklist on his/her work situation.

Characteristics	Yes	No
<b>Policy/management</b>		
1. Organisational values/culture emphasise occupational health.		
2. Management views human resources as valuable and important.		
3. Definite policies and facilities for occupational health exist.		
4. The maintenance of health behaviours and practices is encouraged.		
<b>Environmental</b>		
1. Health and safety regulations are fully observed.		
2. Workplace hazards are monitored.		
3. Employees follow good environmental and ergonomic practices.		
4. The working environment is as pleasant as the work processes allow.		
<b>Physical</b>		
1. Health-screening programmes are available.		

2. The organisation runs health-education programmes.		
3. There are facilities for exercise.		
4. Healthy eating and other health attitudes and habits are encouraged.		
<b>Psychological</b>		
1. Employees can discuss their problems in confidence at work.		
2. Communication is open and frequent, and managers practise active listening.		
3. Morale is high.		
4. Psychological health is as important as physical health and safety.		
<b>Social</b>		
1. There is mutual respect between employees and management.		
2. The organisation has flexible working hours and benefit systems.		
3. Employees look forward to coming to work.		
4. The culture allows for interaction between work roles and non-work roles.		
<b>Development</b>		
1. Employees know what to do and why they do tasks.		
2. Management has a policy of development and empowerment.		

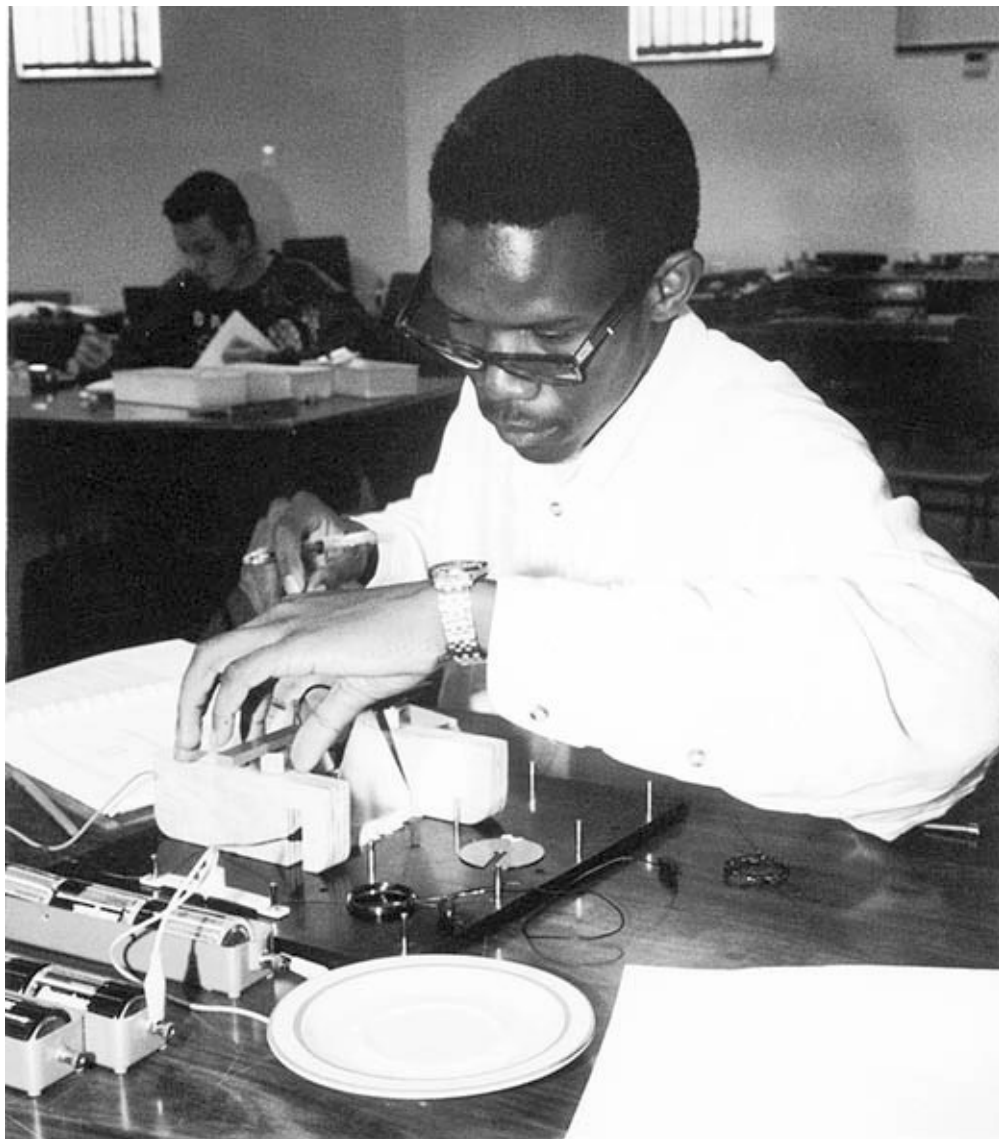
To what extent do you think employers and employees have responsibilities and roles with regard to these health-management factors?

In much of the literature on work adjustment (Lowman, 1993; Dejoy and Wilson, 1995; Warr, 1987, 1996), the emphasis is on the interactive roles of management and the worker in coping with, fighting and managing stress problems. The role of management and corporate responsibility in workplace counselling is also emphasised (Lowman, 1993; Carroll, 1997; Bowerman and Collins, 1999). Although it might often be “lip service”, most organisations acknowledge human resources are their most valuable asset, and have some initiative for health promotion in place.

To promote thriving employees, work adjustment, and the best fit in the work environment, a work environment also needs to provide for particular work requirements and reward systems. If employees and work environments can achieve an on going process of adapting to each other, important ingredients for work adjustment will be present, for example correspondence, satisfaction and

job tenure. R.V. Davis and L.H. Lofquist's approach is similar to the *Job-Characteristics Model* (Hackman and Oldham, 1976; Nelson and Cooper, 2007). (See [Chapter 8](#).)

With regard to occupational choice, J.L. Holland's theory also advocates the *congruent fit* between employees and their chosen work environments (Holland, 1996). In regard to the fit concept, Paul M. Muchinsky (1990) also found that the more congruent the fit between employees and the organisation, the higher job satisfaction and productivity will be, and the lower the stress levels. This results in greater involvement in the job, increased self-esteem and greater commitment. Symptoms such as burnout, stress, role conflict and role ambivalence might be indicative of an incongruent fit in the workplace.



**Figure 20.8** Involvement facilitates well-being.

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With regard to improving *work design* and working conditions, various health-promoting approaches can be followed, such as the following (Karasek, 1979; Hackman and Oldham, 1980; Snyder and Lopez, 2002; Bakker, Demerouti, De Boer and Schaeffeli, 2003; Nelson and Cooper, 2007):

- The mentioned *Job-Characteristics Model* (JCM) suggests that positive performance and well-being outcomes will result if the employee experiences aspects such as meaningfulness, responsibility and feedback in a job that has particular core characteristics (for example, skill variety, task identity, task significance and autonomy in work processes).
- The *Demands-Control Model* proposes that work and jobs must be designed in a way to minimise high job demands, which cause high strain on the employee and over which he/she has little control. These will in turn cause isolation, exhaustion, depression and low job and life satisfaction.
- The *Demands-and-Resources Model* proposes that impediments in work are minimised, demands or requirements are made appropriate, and employees have internal and external resources available to provide optimal work, which will also promote positive experiences and well-being.
- The *Risk-Management Model* goes beyond physical health and safety and emphasises the minimisation of psychosocial risk factors in the job and workplace (for example, role conflicts).
- The *Preventive-Health-Management Model* emphasises some form of prevention to minimise the effects of work stress, but also to control phenomena such as sexual harassment, workplace violence, suicide, organisational downsizing and restructuring.

Health-promotion initiatives at work can be in many formats, for example integrated or holistic programmes such as *employee-assistance programmes* (EAPs) (Dejoy and Wilson, 1995; Carroll, 1997). Comprehensive programmes promote health at three levels:

- organisational health promotion (getting management involvement and support)
- environmental health promotion (the physical hygiene factors in workplaces, such as health messages, healthy working conditions and good workplace design)
- individual and group health promotion in aspects such as healthy working and

life attitudes, lifestyles and behaviours, and the assistance of employees in various ways to cope with work stress and other problems (for example, during downsizing) (Hiesterman, 2000; Plaggemars, 2000; Worster, 2000).

*In-house programmes* in organisations may also provide certain facilities and services only, for example medical funds, health-and-safety training, and activities related to HIV/Aids. Organisations may, however, also utilise external service providers.

*Health-promotion activities* that are directed at individual, group and organisational levels may also involve surrounding communities because of the work-non-work interactions, and the fact that surrounding communities are important providers of opportunities, labour and feedback to employees and organisations.

*Specific health-promoting programmes* and activities may be aimed at only creating awareness, or they may be meant to motivate, maintain or change employees' health-related behaviours, to do skills training and, at the organisational level, to try to establish a culture of employee wellness that will also facilitate organisational performance (Dejoy and Wilson, 1995).

D.J. Drum (1987) describes *seven levels of client needs* – from little need to very dysfunctional problems – which should be assessed and addressed in programmes. These need levels will determine whether interventions are preventative, developmental or psychotherapeutic in nature. At the individual level, many interventions can be levelled at individual behaviour change (Bandura, 1986; Bennett and Murphy, 1996). These include various forms of therapeutic and psychiatric treatment for employees with more serious psychological problems, and stress-management techniques to cope with ongoing stress or to deal with the consequences of stress (Sperry, 1996; Auerbach and Gramling, 1998; Coetzee and Cilliers, 2001; Nevid et al., 2008). Currently there is much emphasis on a more positive approach to promoting employee and organisational well-being, so that not only are problems addressed, but optimal functioning is also developed in all employees and the organisation (Turner, Barling and Zacharatos, 2002; Nelson and Cooper, 2007; Schreude and Coetzee, 2011).

The facilitation of *coping behaviours* needs to be aimed at improving positive health behaviours and attitudes in employees. Initiatives for the promotion of occupational health need to be related to *self-control behaviours*, which are best illustrated in the concept of *salutogenesis* or healthiness (Strümpfer, 1995; Coetzee and Cilliers, 2001; Strümpfer and Mlonzi, 2001; Snyder and Lopez,

2002; Turner, Barling and Zacharatos, 2002; Nelson and Cooper, 2007). The development of *psychological capital* can involve developing employees with regard to their sense of coherence, internal locus of control, personal hardiness, learned resourcefulness, stamina, potency, self-efficacy and sense of self-actualisation. Most of these concepts imply increasing self-control, resilience and intrinsic resources for staying healthy, being able to face challenges, performing exercise control and being committed to and engaged in tasks and jobs (see [Chapter 19](#)).

In South Africa *change, crisis and trauma management* at work are important health-promotion interventions (for example, after aggressive crime events, and during retrenchments and work loss). Individual employees can also be helped by group-level strategies, in which health is facilitated by various aspects of social support from colleagues, work groups, support groups, mentors and other forms of social interaction (Sperry, 1996; Bowerman and Collins, 1999; Bliese and Castro, 2000).

In many organisations, integrated health-promotion interventions are offered under *employee-assistance programmes* (EAPs) or other health-promotion programmes. In general, these programmes offer a broad range of services and refer to job-based interventions provided in work organisations for identifying problem employees, informing and motivating them, changing attitudes and behaviours, resolving problems, and providing or giving access to counselling and treatment for troubled employees (Dejoy and Wilson, 1995; Hiestermann, 2000; Plaggemars, 2000; Worster, 2000).

### **ETHICAL READER: Using approaches that are congruent with the context of the troubled employee**

The approach utilised needs to be congruent with the context of the troubled employee. Cultural aspects are important, because culture is embedded in the worldviews and experiences of helpers and clients. Culture is also closely associated with troubled people's personality and behaviour, how they experience work, how their problems manifest, and how they experience psychological and other health problems and related interventions. In this regard so-called "multicultural counselling strategies" (or other interventions) emphasise all applicable and relevant knowledge, competencies, methods and ethics. Integrated approaches also consider the

troubled person, family, group or organisation in its social context (Ivey, Ivey and Simek-Morgan, 1997).

## 20.8 SUMMARY AND CONCLUSION

“Psychological health and well-being” refer to the physical and psychological or subjective well-being of employees. “Psychological disorders” refer to diagnosable conditions, manifesting behaviours and symptoms that impair and disintegrate human functioning in one or more domains and roles of functioning. “Work dysfunctions” refer to the impairment of work performance or non-coping that is due to individual attributes of the employee or as a result of the interaction between the employee and the work environment. This interaction between the employee, organisation, environment and other influencing factors can best be explained by a systems approach, the fit between employee and organisation, and whether employees are adjusted in terms of the physical, cognitive, emotional and social behaviours required in the work situation.

Psychological theories explain psychological health according to psychological processes and underlying dynamics in personality and behaviour, in which culture must always be considered. Causal factors or stressors in psychological disorders and work maladjustment are related to the employee’s biological make-up, personality, specific job and organisational factors, and external influences. Work dysfunctions can manifest owing to symptoms of psychological disorders. The latter can range from stress-related disorders to more serious psychopathology such as personality disorders, schizophrenia and mood, or relate to negative attitudes to work, under-and over commitment, work-related emotions, personality and behaviour or conduct dysfunctions, career-development problems, organisational health problems, and conflicts between work and other areas of a person’s life.

The psychologist has an important task in occupational health promotion. He/she can be involved in single interventions, but can also be involved in integrated initiatives, such as EAPs. In health-promotion activities, interventions are aimed at individual, group and organisational levels, and aim to achieve various objectives or outcomes. Health-promotion activities should not only be aimed at healing problem employees, but also at facilitating growth, health behaviours, resilience and a sense of personal control in all employees.

It can be argued that most employees want to work and are fairly satisfied with their work. However, emotionally troubled employees are a reality. Even if

it seems that in general, healthy employees will be happy and productive, it is the continuous task of employers, psychologists and health workers to assist in designing environments for optimal employee and workplace interface, and provide health-promotion efforts that will not only provide for basic needs and cure impaired employees, but also facilitate optimal growth and health. This will have to be achieved in a context of ever-changing work environments, employee compositions, and working processes, as well as changing perceptions, attitudes and values about work.

In this light it is sad that organisational and work design, employment relations and organisational communication are sometimes also detrimental to health and possibly not much better than in previous times. In South Africa labour disputes and conflicts, and the influence of labour unions, often lead to occupational hardships for many, and numerous organisations are characterised by symptoms of conflict in employee relations.

Although the government and various institutions and employers in South Africa are involved in the field of employee well-being, the emphasis in labour and health laws, as well as in practice, is still primarily on physical health and safety aspects of occupational health. Although some attempts are made at the psychological care of employees, employees are often neglected or simply referred elsewhere, or they are expected to take personal responsibility for seeking outside help. Maybe there is still too little systematic and integrated policy and action with regard to psychological safe workplaces and psychological adjustment in the work context.

## **20.9 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Which definition best describes a mental disorder?
  - a) the occurrence of impaired social and work behaviour in people
  - b) impaired behaviour due to the interaction between people and their work
  - c) a manifestation of behavioural/emotional /biological dysfunction in a person
  - d) the presentation of many illness symptoms and complaints by people
  - e) disorganised behaviour as determined by specific cultures.
2. An important reason why stress influences peoples' health and

- adjustment is that stress ...
- a) impacts on various aspects of the immune system
  - b) relates to reactions on environmental stimuli
  - c) causes anxiety and psycho-physiological disorders
  - d) is directly linked to substance-abuse disorders
  - e) causes people to experience dissociative and eating disorders.
3. A general denominator between overcommitment and undercommitment to work is:
- a) the feelings of depression and fear whilst working
  - b) the impairment of work behaviour with regard to thinking patterns
  - c) personality and adjustment problems in both instances
  - d) the difference in how a work ethic and attitude has been internalised
  - e) the manifestation in behaviour of fear of success and failure.
4. The behaviour of an employee who mostly experience vague feelings of fear, tension, worry and panic which impair his/her work performance may indicate the presence of ...
- a) an anxiety based disorder.
  - b) a generalised anxiety disorder.
  - c) a psycho-physiological disorder.
  - d) fear of failure process
  - e) a mood and impulse control disorder.
5. One of your employees is not popular in his work team because of his competitiveness and aspirations and intense emphasis on completing tasks accurately and on time. This employee's behaviour may be classified as ...
- a) an obsessive compulsive disorder
  - b) narcissistic personality disorder
  - c) a work addiction or workaholic
  - d) a process of being burnout
  - e) overcommitment in the Type A profile.

## **Answers to multiple-choice questions**

1 = c; 2 =a; 3 = d; 4 = a; 5 = e

## **Issues for discussion and practice**

1. Critically evaluate the advantages of having a systemic understanding with regard to psychological health, also in work context.

2. Explain the various types of psychological disorders that can influence work performance.
3. With examples list possible work dysfunctions and indicate possible causing factors
4. Analyse your organisation or another organisation, and describe its policy and strategies for the management and promotion of employee and organisational health.
5. Give reasons why culture should play an important role in diagnosing and describing psychological problems, and when managing occupational health.

## CASE STUDY

Yvonne is a 30-year-old widowed woman, who lives with her three young children in a security complex. She only started working after her husband's tragic death in a shooting incident at home. After obtaining a college marketing diploma, she never worked because she really dreaded the idea of having to meet other peoples' expectations and possible criticism. As long as she can remember she was a very tense person and worried about everything in life, sometimes up to a level where her fears and feeling are very intense, which once before made her consult a physician for a possible heart attack. The doctor diagnosed a panic attack and since then she started to use relaxation medicine. She decided not to work because of her lingering fears and panic reactions when things were not perfect. Fortunately, her husband's good income allowed her to do so. She also had her first child a year after their marriage and since then, she had never worked and stayed at home with the children.

After her husband's unexpected death, she is forced to work as a receptionist in a medical practice to make ends meet. She now again finds working and being amongst other people very stressful and she continuously fears negative feedback and criticism. Added to this she now realises that her husband's death influenced her profoundly and she often experience recurrent thoughts and dreams about the shooting accident whilst her husband and friends were cleaning their fire arms. It worries Yvonne that her colleagues describe her as an unhappy person who worries a lot about things and who cannot relax

and enjoy life. They think Yvonne's many illnesses and visits to health experts are the result of her being too tense about everything. Yvonne, on the other hand, thinks that she is merely very precise about herself and what she does, trying to avoid making mistakes. She knows this could be the reason why she does not want to be promoted – she does not know what people might expect of her and she does not want to be seen as a failure.

In general Yvonne rather stays at home with the children and does not easily accept invitations to parties or social meetings at work. Though she would like to have better relationships, she realises that most of her interpersonal relations are very sensitive in nature, and people tend to avoid her. She must work and is afraid of losing her job, and also worried about her health and her relationships. This is why she is now telling her story to a psychotherapist, again.

- 
1. What type of psychological problems or work dysfunctions, or symptoms of these, do you think Yvonne is experiencing?
  2. What possible causes for her problem(s) can you identify?
  3. What are the consequences of her symptoms, for Yvonne?
  4. Use at least two theoretical approaches in this book to explain Yvonne's experiences.

## PART SIX

# Psychological methodologies

The chapters in this part explore how psychological knowledge, research and other methods are used to understand and handle human problems, and to facilitate the optimal functioning of people in their environments. Important tasks for I-O psychologists include identifying and assessing individual differences that could effect work performance, and establishing the relationship between personality factors and work performance. The predictive value of personality and other psychological factors for work performance allows employees to be selected and developed so that they fit as well as possible into occupational settings.

Psychology and I-O Psychology are foremost sciences in its development and application of methods to explain and predict human behaviour, personality and other psychological phenomena. This is accomplished by various types of research approaches and methods through which theoretical and applied knowledge is scientifically systematised by means of the collection, analysis, comparison, classification and description of captured data and findings.

Also emphasised in this section is the importance of valuing and respecting human rights and dignity, and using psychological knowledge and methods fairly and ethically to ensure every person has equal opportunities with regard to his/her potential. To this end, psychology should utilise legislation, ethical codes and other guidelines to guard its own practices and to consider the best interests of colleagues, customers and society.

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## **Chapter 21** [Assessment of personality and individual differences](#)

## **Chapter 22** [Research and other methods in psychology](#)

## **CHAPTER 21**

# **Assessment of personality and individual differences**

*Ziel Bergh*

## 21.1

## [Introduction](#)

**21.2**

## Importance and applications of psychological assessment

## 21.3

## Defining personality and individual differences

**21.4**

## Origins and determinants of individual differences

**21.5**

## Types of individual-differences factors

**21.6**

[The context of psychological assessment](#)

**21.7**

## Approaches to and types of personality and psychological assessment

**21.8**

## Requirements for efficient psychological assessment

**21.9**

## Summary and conclusion

**21.10**

## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- understand the concepts of personality and individual differences
- identify and describe different types of individual-differences factors
- distinguish between different approaches in psychological assessment
- reflect on the predictive value of various personality-assessment measures
- discuss the assessment of cognitive personality factors
- describe the assessment of personality traits by self-report measures
- discuss psychological assessment related to well-being and career counselling
- indicate how observational techniques can be used in the work context
- explain important requirements in psychological assessment
- reflect on the value of individual differences knowledge for assessment in human resources practices.

### 21.1 INTRODUCTION

Regardless of how wealthy or motivated people are, all people cannot, for example, play soccer like Lucas Radebe, act like Charlize Theron, or be politicians like Nelson Mandela and F.W. de Klerk, or do selfless work amongst the poorest of the poor like the late Mother Theresa.

Human life is characterised by uniqueness and variety in each person, group, culture and country. This is illustrated by differences and similarities in physical, psychological, social, spiritual, moral and other types of attributes and behaviour. The following are a few examples of this:

- Some people do not look, talk and move alike, whilst others do.
- People do not act and speak similarly and in similar circumstances, for example when excited or under stress.
- People achieve and perform differently in many areas, such as learning,

acting, sport, jobs, relationships and health.

- Some people are different with regard to ethnicity, gender, beliefs, attitudes and values.
- Some people are spontaneous, social and friendly; others more reserved, withdrawn and serious.
- Young and old people, and males and females, seem to be dissimilar with regard to many things.
- Many characteristics in people seem to stay the same across time and in many situations.

Some of these examples illustrate the nature and manifestation of personality or individual differences. They also emphasise an important assumption that people are recognisable in different situations and across time because they show more or less enduring and consistent personality attributes and behaviour. Part of this consistency is also the unique attributes and behaviour that distinguish individuals and groups from each other. It is interesting to note that differences in the historical and personal profiles of psychological theorists and researchers may also explain the reasons for the diversity, differences and, even dissimilarity or controversy of their psychological theories and practices.

Psychologists' ability to successfully identify and measure individual-differences factors, and their relationships with other variables such as work behaviours, empowers employers to find and develop talent amongst employees, and employ people with the right competencies for jobs. Psychological disciplines, such as I-O Psychology and its sub-fields, study and assess commonalities and uniqueness in human attributes and behaviour aimed at developing and influencing human behaviour in various contexts.

The *aim* in this chapter then, is to establish an understanding of what individual differences are, and how they are measured in work contexts by using various personality-related assessment techniques. This aim is quite broad, but cannot include all aspects of assessment in psychology and I-O Psychology.

## **21.2 IMPORTANCE AND APPLICATIONS OF PSYCHOLOGICAL ASSESSMENT**

Psychology's early interest in measuring individual differences amongst people is one of the contributing factors in psychology's beginning. It still influences psychology as an applied science, and the establishment of many practice areas that utilise psychological assessment, and specifically personality assessment

(Goodstein and Lanyon, 1999; Gregory, 2007). The study of individual differences (differential psychology) or the various types of personality factors, are still a major emphasis in psychology, as is psychological assessment (psychometrics). *Differential psychology studies* concentrate on attributes in people, which are important in understanding and predicting people's behaviour in particular situations (Eysenck, 2004; Landy and Conte, 2004; Ashton, 2007; Maltby and Macaskill, 2007; Furnham, 2008).

*The discipline of psychometrics* entails the development of psychological measuring instruments (such as psychological tests) to measure cognitive ability, personality and other attributes, and the statistical analysis of assessment results to determine the value of such concepts, as well as that of assessment instruments.

Psychologists' ability to successfully identify and measure individual-differences factors give employees and employers the best chance of being successful in work enterprises. The opposite scenario, a misfit between people and their work environments, often leads to much stress, poor adjustment to work, impaired performance and costs to employees and employers. In workplaces, *diversity management* involves the realisation that employees are different in many ways and should be treated accordingly. In most countries, including South Africa, constitutional and labour laws, codes of conduct and ethical codes primarily addresses fairness towards the factors of individual-differences. They emphasise human rights and dignity and prohibit discrimination and unfairness towards individuals and groups, as well as conducting psychological assessment.

Psychologists and other professionals in *people management* should have knowledge about the structure, variety, meaning and factors that influence individual differences, how individual differences originate. I-O psychologists have an ongoing task to assess and research the work-relatedness of personality and other individual-differences factors, and how specific personality attributes relate to specific work tasks and situations which will be of value when placing employees in jobs and tasks on an ongoing basis.

In recent years there has been a dramatic growth in research on and acceptance of the role of personality factors or individual differences in understanding employees' performance and organisational behaviour. It has been accepted for some time that cognitive or intellectual personality factors, and also biographical personality factors, correlate positively with and influence various aspects of working behaviour. However, since the 1980s improved

research and assessment has indicated that the psychological and social aspects of personality differences influence work performance more significantly than was accepted previously (Guion and Gottier, 1965; Barrick and Ryan, 2003; Ashton, 2007). These findings suggest that, whilst ongoing research into the effectiveness of psychological assessment is necessary, it will always be better to use psychological assessment purposefully than to depend on our own subjective judgements which may be influenced by prejudices about human behaviour and psychological assessment.

Knowing the consistency of personal attributes and behaviour in people, situations and across time, allows psychologists to design and use certain measuring instruments for many people and applications. It also allows them to use these instruments with specific groups and in specific situations in order to predict human behaviour, determine its relatedness to other variables, and measure and compare individuals, groups and cultures.

I-O psychologists use psychological assessment measures to assess personality across all domains of personality functioning and with regard to common and unique attributes in personality in many applications, such as:

- the choice of study or career direction
- job selection, promotion or placement
- the selection of work groups and teams
- assessment of organisations
- the determination of managerial, leadership, and entrepreneurial attributes
- the establishment of consumer or buyers' behaviour
- psycho-diagnosis of psychological disorders and work dysfunctions
- the application of therapy or counselling
- assessment in research to establish the work-relatedness of personality constructs.

Except for the well-known applications of psychological assessment in clinical, educational, counselling and I-O Psychological practice areas, there are many special application areas, such as in neuropsychology, geriatric psychology (the study of ageing), legal-medical and forensic psychology, assessing children with learning disabilities, and the assessing cultural and linguistic minorities (Gregory 2007; Foxcroft and Roodt, 2009).

## **21.3 DEFINING PERSONALITY AND INDIVIDUAL DIFFERENCES**

Personality and individual differences are often referred to as more or less the same “phenomenon”, or in a supplementary way. One concept is really specifying or qualifying the other (Maltby and Macaskill, 2007; Furnham, 2008).

*Personality* (see [Chapter 13](#)) refers primarily to the more or less enduring and consistent patterns of physical, psychological, social, cognitive, moral and other attributes and behaviour that characterise people and their actions, thinking and feeling across time and situations. Personality and its attributes are definable in people through the expression of observable or overt behaviours, but covert or unconscious factors may also influence personality expressions.

*Individual differences* refer to all genetic attributes and acquired psychological, social, cognitive, moral, physical and other personality-related attributes that might indicate differences and similarities between people, or indicate the diversity amongst people. More specifically, individual differences are observed in personality traits, intellectual abilities, motives or needs, emotional traits, values, attitudes, interests, physical and physiological attributes, health behaviours and personal historical factors or biographical/demographical characteristics. In a sense then, all individual differences can be said to define personality, which explains why collectively these factors determine an enduring, consistent personality profile by which a person behaves and is known by others in various life roles, for example in work performance (Furnham, 1992, 1997; Murphy, 1996; Barrick and Ryan, 2003; Maltby and Macaskill, 2007).

In our discussion of personality in various chapters other personality-related concepts, such as temperament, character and self-concept, have been mentioned, and are used to either denote specific aspects of personality or personality as a unitary concept, but are also used to study individual differences. In contemporary psychology these and other personality dispositions or internal states are also used to denote certain character strengths or virtues on which people may differ (See [Chapter 19](#)). (Harter, 1998; Leary and Tangney, 2003; Peterson and Peterson, 2003; Ashton, 2007; Maltby and Macaskill, 2007).



**Figure 21.1** People: In many aspects similar, some are similar, some are very unique.

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## 21.4 ORIGINS AND DETERMINANTS OF INDIVIDUAL DIFFERENCES

The development of personality and individual differences involves an ongoing controversy regarding whether genetic factors (nature) or environmental learning (nurture) is the dominant determinant in human attributes and behaviour. One view is based on scientific data about manifested genetic and acquired differences between cultural and race groups as indicated on actual test scores in twin and adoption studies and heritability estimates (estimates of the ratio in human traits that is caused by genetic factors). An opposing viewpoint is based on strong sociopolitical issues and argues that differences in test scores, especially with regard to cognitive abilities, are not inherited, but caused by socio-economic disadvantage and cultural stereotyping, as well as cultural bias in cognitive testing procedures (Gregory, 2004; Hook et al., 2004; Rushton and Jensen, 2005; Sternberg, Grigorenko and Kidd, 2005; Weiten, 2008). With regard to both these arguments on inheritance or environmental influences, research on adoption, environmental deprivation versus enrichment, and natural

generation changes over time sufficiently indicates that inherited intelligence can be improved or influenced.

It seems that heredity and the environment contribute interactively and reciprocally to personality and individual differences. Inheritance creates potential, whilst environmental factors may have a strong influence on how personality and specific attributes and behaviour develop, either positively or negatively. Noticeable psychological differences between people will be determined by how people are differently influenced in families, amongst peers and friends and as a result of broader environmental agents away from home.





**Figure 21.2** Environments create opportunities and differences.

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Some of the most remarkable differences in physical and other attributes between individuals and groups are with regard to their physical and genetic make-up and related biological factors, and the consequences that may result from these factors. Similarly, noticeable differences will exist between individuals and groups with regard to psychological attributes related to unconscious or non-conscious processes, traits and types, behaviours and social learning, interpersonal behaviours, cognitions, self-experiences and other measurement issues such as biographical or historical influences (Furnham, 1992; Barrick and Ryan, 2003; Maltby and Macaskill, 2007).

## **21.5 TYPES OF INDIVIDUAL-DIFFERENCES FACTORS**

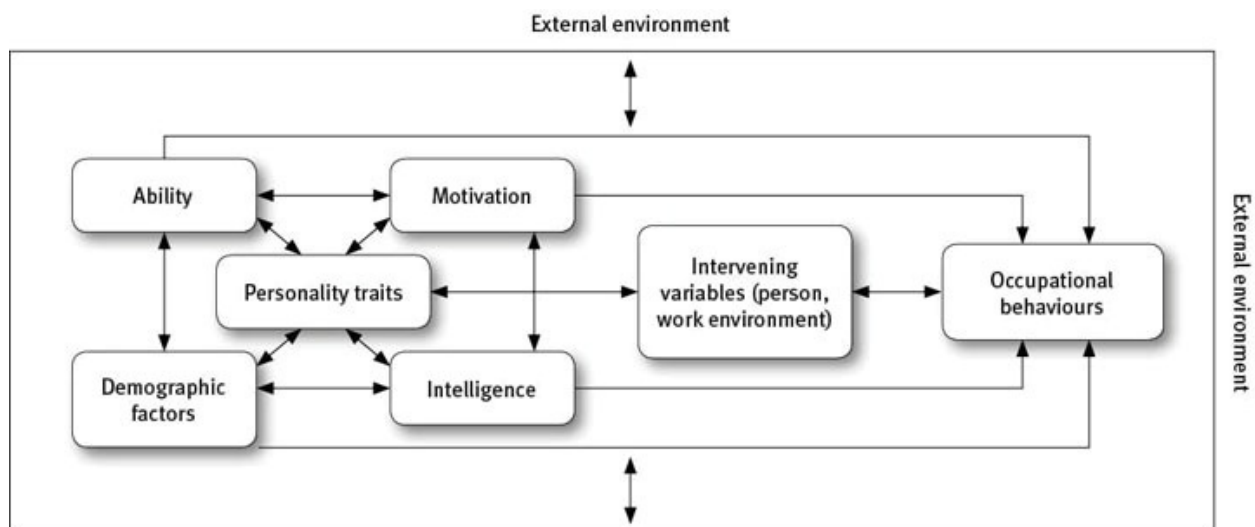
From personality theory, research and assessment over many years, a number of *individual differences factors*, according to which people can either differ or show similarities, have been identified and described as measurement concepts and applied in psychological assessment techniques.

All these variables also relate to the various domains in personality (physical, cognitive, emotional, social, moral, spiritual and so on) and also to one or more

of the interdependent dimensions of structure, motivation, development and psychological adjustment (see [Chapter 13](#)). Personal and historical demographic or biographical attributes (biodata) of people, such as previous experiences, age, gender, sexual orientation, education level and health can in themselves be important differentiating factors, and are important (as moderator variables) in explaining findings or assessment results about other personality variables or their types of relatedness to other variables. For example, an assessment of conscientiousness and work performance in a mixed gender group might not yield any significant relationship. However, when the group is divided into two gender groups, one group's anxiety measures, say the female group's, might yield a significant relationship with work performance.

In I-O Psychology, in most cases in research, most personality factors are utilised as *predictor or independent variables* to assess their relationship with *dependent or criterion variables*, which most often are some measure of work performance. In some instances, though, personality factors and personal variables such as biodata might act as *moderating or intervening factors* which might influence the relationship between personality and work performance.

Figure 21.3 illustrates most of the individual-differences factors, with personality a central source of influence. Similar models are used in personnel selection to predict work behaviours.



**Figure 21.3** A model of individual-differences factors used to predict occupational behaviour.  
Source: Adapted from Furnham (1997:45)

## **Assessing personality as an integrative concept**

If personality is seen as an integrative concept, the non-cognitive domain and the cognitive domain, as well as other factors will be used to specify specific measurement concepts (Furnham, 1992; Eysenck, 2004; Landy and Conte, 2004; Gregory, 2007):

- Non-cognitive personality factors and behaviour include all states of awareness, conscious or overt and directly observable physical, psychological and social behaviours, traits, emotions or affective states, values, beliefs, attitudes and motives, as well as unconscious or covert and less observable behaviours, as in underlying motives, emotions, attitudes, traits, values and, even, thinking and perceptual processes.
- Cognitions or ability personality factors consist of thought processes, including intelligence, memory, reasoning, problem-solving, analysis and learning, as well as cognitive styles.
- Biological and related factors include, for example, genetically determined differences, health status, and physiological and neurological attributes.
- Other personal factors and circumstances include, especially, biographical factors (including demographics). Examples of these are age, gender, cultural and ethnic features, educational level, work and other experiences, rural or urban origin – all of which differentiate people, and qualify or influence other individual-differences factors and work behaviours.
- Combinations of personality factors are also utilised, as in psychomotor functions (physical, neurological, perceptual and psychological aspects) and cognitive styles such as emotional intelligence (intelligence, emotions and social skills).

## **21.6 THE CONTEXT OF PSYCHOLOGICAL ASSESSMENT**

Psychological assessment must always be considered within the context of the many thinking frameworks or paradigms that influence its theory, research and practices, as well as the influences of the social, political and economic

environments in which it is developed and practiced. The development of psychology in South Africa, and aspects related to psychological assessment, are described by D.A. Louw and D.J.A. Edwards (1997), C.D. Foxcroft and G. Roodt (2005, 2009), K.F. Mauer (2000) and L. Nicholas (2003).

Modern psychological testing originated in Francis Galton's (1822–1911) work on sensory and motor testing. R.S. Woodworth's Personal Data Sheet, constructed in 1920, seems to have been the first personality test to identify men who were unsuitable for service because of their personality type (Walsh and Betz, 1985; Gregory, 2004).

Many institutions are involved in best practices with regard to psychological assessment (Foxcroft and Roodt, 2009). Of special interest in South Africa are various interest groups with regard to psychological assessment, for example, assessment centres, forensic psychology and private practice, in which psychological assessment is a prominent issue. The Psychological Assessment Initiative (PAI) of SIOPSA is tasked with seeing to the best practices with regard to psychological testing in South Africa, as illustrated in its publication *Code of practice for psychological assessment in the workplace* and a booklet published by the Society for Industrial and Organizational Psychology (SIOPSA), *Guidelines for the validation and use of assessment procedures for the workplace*. In South Africa the Professional Board for Psychology has an important regulating role with regard to psychological training and practice. This Board executes its statutory control by applying regulations based on various institutions as indicated in the ethical reader box. With regard to psychological assessment the Board utilises its Psychometrics Committee on aspects such as test classification, legal requirements and ethical codes.

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### **ETHICAL READER: Psychological assessment in South Africa: sensitive cross-cultural and political issues and government legislation**

Psychology is an important application area of human rights and related issues, such as cultural and ethical codes, government legislation and other procedures, which often place psychological assessment in a sociopolitical context. Generally speaking, around the world, including in South Africa, human rights are specified in national constitutions and other legislation and are thought of as prescribing certain basic human rights, and humane and just

treatment for all people, despite the many differences between people. Psychology across the world, and also in South Africa, has many examples of human-rights abuses with regard to the generation and use of psychological knowledge and practices, especially in psychological assessment and related procedures and decisions. Government legislation, ethical and business codes, as well as activities and procedures by interested parties, are aimed at protecting psychologists, their clients and the broader public from abuse and misuse of psychological practices, and are meant to give people a voice to demand accountability for psychological actions.

Important developments in South Africa have seen the introduction of more governmental legislation, and other bodies and processes, to promote human rights and regulate fair, unbiased and ethical use of psychological assessment and other procedures in workplaces.

Examples of these legislation, bodies and processes are:

- the South African Constitution
- the Labour Relations Act, No. 66 of 1995
- the Employment Equity Act, No. 55 of 1998
- the Health Professions Act, No. 56 of 1974
- the Psychological Assessment Initiative (PAI) in association with the Psychological Society of South Africa (PsySSA)
- the Psychometrics Committee of the Health Professions Council of South Africa (HPCSA).

Various other bodies, like Universities and Test Publication and consultation companies contribute to the development of assessment instruments and to ensure best assessment practices. Presentations at the annual conference of SIOPSA also emphasise applications and research with regard to psychological assessment in the work context.

Many South African authors and researchers are also continuously busy to reflect on issues with regard to psychological assessment, for example cultural perceptions with regard to selection techniques, test bias, prejudice and ethical codes (B. Bedell, R. Van Eeden and F. Van Staden (1999), A. De Jongh and D. Visser (2000), C. D. Foxcroft (1997), N.C.W. Claassen (1997), K. Owen and J.J. Taljaard (1996), G.J. Smit (1996), G.K. Huysamen (1996), C.D. Foxcroft and G.

Roodt (2009), and Hook et al., (2004))

## 21.7 APPROACHES TO AND TYPES OF PERSONALITY AND PSYCHOLOGICAL ASSESSMENT

Approaches and strategies for the scientific assessment of personality in the work context derive from the study of personality according to the various theories and research on personality and applications. Based on the psychometric or measurement tradition and the more objective personality theories (such as trait approaches, behaviourism and cognitive psychology), a strong emphasis in psychological assessment is on an *objective or quantitative paradigm*. In this approach structured techniques according to specific procedures are used, whilst numerical indices (for example, norms) reflect the strengths of assessed variables in people and the relationship or correlation between variables (for example, scores on ability and personality tests). In contrast, the *clinical approach* is based on theories such as psychoanalysis and humanism, in which underlying psychological processes are measured using more unstructured and subjective techniques in which interpretation rests with the psychologist's knowledge and experience. Other more subjective approaches are also emphasised (for example, narrative or discourse analysis and concepts from other theoretical approaches). These are more qualitative and subjective, and reflect the assessor's consideration of the individual's experiences or meaning with regard to social reality.

Often personality measures are also referred to as being either of an idiographic or a nomothetic nature. *Idiographic assessment* utilises techniques to assess unique aspects in individuals, for example interpreting unique personality traits, interpreting underlying dynamics by using themes in discourse analysis, projective techniques, psychobiographies, and some objective tests (the latter referring to tests such as physiological measurements, which neither the testee nor assessor can fake). *Nomothetic types of assessment* are aimed at assessing and comparing common behaviours in people and groups to establish general laws, for example motivations, abilities and other traits and emotions, through personality questionnaires and psychometric tests (such as ability tests).

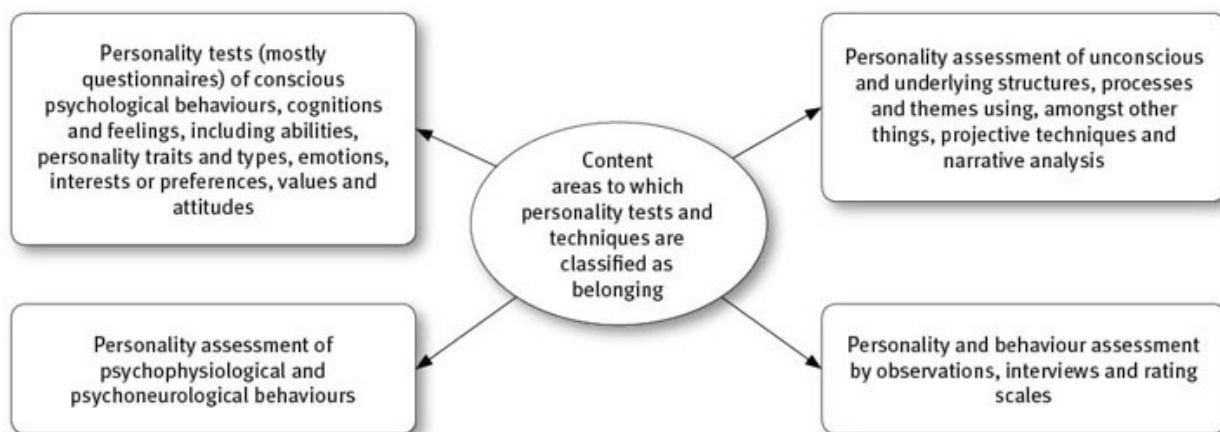
In respect of assessment phenomena, in both South Africa and worldwide, there is also a need to utilise assessment for research and other applications that indicate differences and similarities in cultures (the “emic” approach) and across

cultures (the “etic” approach) (Cloninger, 1996; Church, 2000; Van de Vijver, 2002; Foxcroft, 2004; Meiring, 2008; Foxcroft and Roodt, 2009). This is another way to determine the validity and application value of personality concepts and techniques.

With regard to *types of psychological assessment techniques*, many types of classification can be made, which is also determined by either a narrow definition of personality as personality traits as measured by personality tests, or a broader view that includes personality measures from the biological, cognitive, psychological, social, moral and even spiritual domains (the approach supported in this book).

With regard to the various approaches on psychological assessment and the content areas in Figure 21.4, the following classification is often used in books on types of psychological assessment techniques:

- objective (standardised and quantitative methods)
- subjective (personal judgements and projective techniques)
- self-reporting (questionnaires, inventories and interviews)
- observational (observations, experiments, simulations and interviews).



**Figure 21.4** Content areas to which personality tests and techniques are classified as belonging.

In the broader scope of psychological assessment for various applications, a classification according to the concepts being measured is mostly used. This includes measures of cognitive functioning, emotionality (affect, and adjustment), personality assessment, assessment of concepts mostly used in career counselling (aptitudes, interests and values), neuropsychological

assessment and also assessment through interviews and biographical information (Gregory, 2004; Foxcroft and Roodt, 2009; Morris and Maisto, 2010).

The many types of psychological tests can also be classified in terms of how they are administered and completed (for example, verbal and non-verbal tests, practical performance tests, and tests for group or individual administration). These days IT-supported assessment, for example, computer-assisted psychological assessment and Internet assessment, is increasingly used, and there is ongoing discourse and regulations about best practices in this regard.

In the work context, other types of assessments that are mostly not classified as psychological assessment are also utilised. Examples are situational and job-analysis techniques or competency profiling, which are used to determine the requirements for jobs on which psychological assessment for selection and promotion are based. Another example is job-performance appraisal as part of performance management, which is used to determine how successful a job incumbent is after having been selected.

### **21.7.1 Assessing cognitive personality traits and processes**

Cognitive or intellectual personality abilities are the many *mental operations* people use to perform the mental requirements in tasks, for example studying or acting in a job. Examples are intelligence, memory, reasoning, learning and learning potential, problem-solving and creativity. Ability tests, also referred to as assessment of *maximum performance*, usually include psychometric testing of intelligence, aptitudes, achievement, creativity, cognitive development and psychomotor functions (such as hand-eye coordination). This is done through the use of various intelligence tests, verbal and non-verbal ability tests (questionnaire-type tests), as well as practical or performance tests. The classifications of cognitive traits and processes are based on various structural, process and information-processing approaches (see [Chapter 7](#)), including Spearman's g-and s-factors, Thurstone's seven primary or group factors of ability, Piaget's theory of cognitive development, and Sternberg's theory of cognitive or information processing (Sternberg, 1996; Gregory, 2007; Furnham, 2008). Some cognitive personality concepts derive from social-cognitive, learning and cognitive theories. Examples are the locus of control, emotional intelligence and self-efficacy, which are not forms of intelligence, but types of traits or dispositions that indicate cognitive control and expression influenced by personality and emotions.

People differ in terms of their cognitive and other abilities, as measured by cognitive or ability tests, and verified by different levels of achievement at academic and other tasks. However, the term “cognitive ability” (and “g”-factor or “IQ”) refers to a person’s capacity to acquire knowledge or learn reason and solve problems and be able to cope with the general cognitive requirements of life and work.

Gardner (1993) described various types of intelligence or *multiple intelligences*:

- logical-mathematical
- body-kinesthetic
- linguistic
- musical
- spatial
- interpersonal
- intrapersonal (Goleman (1995) referred to these last two as “emotional intelligence” ).

Collectivist societies might emphasise intelligence as a social or interpersonal phenomenon, whilst individualistic cultures might rate intelligence more strongly as a thinking and problem-solving ability, but often also include social competence (Eysenck, 2004). Such cultural differences must also be considered when ability tests are developed and scores interpreted.

#### **21.7.1.1 Intelligence measurement**

*Intelligence tests*, or tests of mental alertness, include individual and group intelligence tests designed to assess general intelligence (the g-factor), and also for more specific and in-depth analyses for diagnostic purposes in clinical and psychiatric use. One of the most useful individual tests for assessing adult intelligence is the Wechsler Adult Intelligence Scale, a revised edition of which has been adapted for South African use, though this test is not often used in the work context. Owing to cultural differences in the work context, practitioners often prefer to use culture-free and non-verbal (performance) tests of mental alertness, such as Cattell’s Culture Fair Intelligence Test (CFIT), and the Raven Progressive Matrices (RPM) (Gregory, 2004).

#### **21.7.1.2 Aptitudes**

*Aptitude testing* is mostly directed at assessing an individual’s natural potential

and acquired learning, which might enable him/her to develop particular proficiencies and skills for particular intellectual tasks. Most aptitude measurements, by various aptitude test batteries or tests, are based on the following general and group abilities, as classified by Spearman and Thurstone in particular:

- intelligence – the general mental ability (g-factor) to understand, learn, reason and adapt
- reasoning – the ability to think logically and find rules for solutions on given information
- memory – the ability to reproduce meaningful information such as words, symbols and numbers obtained or retained from previous learning and experiences
- numerical ability – the ability to reason quickly and accurately by way of addition
- subtraction, multiplication and division
- spatial ability – the ability to perceive form and space, visualising forms and distance in two and three dimensions
- verbal (language) comprehension – the ability to understand and reason about problems containing language, such as words and verbal analogies
- word fluency – the ability to be fluent in words and language
- perceptual speed – the ability to perceive detail and differences quickly and accurately.

Of these, verbal, spatial, reasoning and numerical abilities have been found to be the best predictors of work performance (Hunter, 1986; Furnham, 1992).

Other group ability factors, but also more specific ability factors (s-factors) are also measured. Some of these factors are sensory, perceptual, psychomotor and physical abilities. Computer and mechanical skills, and artistic, musical and other specific creative abilities are also assessed through aptitude testing. Many jobs require some measure of, for example, physical strength, mechanical insight, and sensory and motor skills for the understanding and performance of practical tasks.

### **21.7.1.3 Achievement or performance**

*Achievement tests* are meant to assess the amount of knowledge or learning, or to diagnose the nature of such knowledge and learning, after a period of experience, development or training. Performance appraisals and examinations,

although not psychological tests, are forms of achievement testing.

#### **21.7.1.4 Cognitive styles**

So-called “cognitive styles” lie somewhere between intelligence and personality (Fontana, 2000). A *cognitive style* is how people think, based on certain attitudes, perceptions and personality orientations. A cognitive style might have implications for ways of learning, emotional expression, problem-solving, management and leadership styles, conflict management and stress management, or coping styles. Jung’s four cognitive styles are often used in assessments by either Jung Personality Scales or the Myers-Briggs Type Indicator (MBTI). According to Jung, people’s perceptions of things are influenced by sensation or intuition, whilst their judgements are influenced by thinking or feeling. Jung asserted that people’s ways of thinking (their cognitive style), in their jobs or in leadership and management, is determined by combinations of perception and judgement, that is either sensation/thinking, intuition/thinking, sensation/feeling or intuition/feeling (Du Toit, 1983; Briggs and Myers, 1993).

Other cognitive styles measured are cognitive complexity and cognitive simplicity, as coined by Kelly (Schultz and Schultz, 1996), denoting the amount, intricacy and variety of information people use to differentiate between people or other aspects. This concept was derived from research on personality by using Kelly’s REP Test (Cervone and Pervin, 2008). In another application, Niemeyer (1992) used this concept to indicate how people who have a complex cognitive style use more information (constructs) on careers and also integrate such constructs better in order to make informed and better career choices.

Some other polarities used to describe cognitive styles are:

- field-dependence versus independence (amount of external information necessary to understand and self-manage a situation)
- optimism versus pessimism
- scanning versus focusing
- reflexivity versus impulsivity
- reactivity versus proactivity.

A more recent specific application of person-intellect interaction is the measurement of emotional intelligence. The concept of emotional intelligence (EI), which is discussed in Chapters 7 and 8, has connotations in many theoretical perspectives, though not many personality approaches allocate emotion or affect a prominent role in personality functioning. However,

emotions are firmly embedded in personality and motivation (Salovey and Mayer, 1990; Goleman, 1995; Brackett and Mayer, 2003). *Emotional intelligence* indicates how people perceive, understand, control and manage their own emotions to facilitate their own and other peoples' emotions, and in the process enhance intellectual growth, performance and relationships (Maltby and Macaskill, 2007). Reuven's Bar-On measure for emotional intelligence, the Emotional Quotient Inventory (EQ-i), is arguably the most-used measure of emotional intelligence.

### 21.7.1.5 Creativity

*Creativity* is a complex phenomenon based on intelligence (not necessarily high intelligence), conscious and unconscious mind states, personality factors, and training and experience in specific fields (see Table 21.1). Techniques for the assessment of creativity are based on the generation of new or original ideas that are also realistic and useful. Creativity is associated with divergent thinking that is getting as many ideas, alternatives and applications as possible before coming to a conclusion.

**Table 21.1** Some creative attributes on which people differ

Creative cognitive attributes	Creative personality attributes/preferences
<ul style="list-style-type: none"> <li>• innovative ideas</li> <li>• fairly high intelligence</li> <li>• divergent and lateral thinking</li> <li>• high achievement orientation</li> <li>• original, progressive thinking ("out of the box")</li> <li>• ability to apply innovative ideas</li> </ul>	<ul style="list-style-type: none"> <li>• more autonomous</li> <li>• highly self-sufficient</li> <li>• highly self-assertive</li> <li>• very resourceful</li> <li>• might be more introverted</li> <li>• can have more feminine interests</li> <li>• some level of impulsivity</li> <li>• open to experiences (some irrationality)</li> <li>• might prefer unstructured /unrestricted situations</li> <li>• single-mindedness (engaged, involved in activities)</li> <li>• can handle ambivalence or uncertainty</li> </ul>

Robert Sternberg and Todd Lubart (1992) postulated the "big five" factors for creativity:

- expertise or relevant knowledge
- imaginative thinking, referring to the ability to be innovative and see things in new ways

- “venturesomeness”, which will allow a person to take risks and tolerate ambivalence
- intrinsic motivation, whereby a person shows focused interest, works hard and is persistent, even with failure
- a supporting, creative environment (for example, family, colleagues and workplaces that encourage creativity).

#### **21.7.1.6 Neuropsychological assessment**

In clinical (psychological-medical) and forensic (legal-psychological) assessments, *neuropsychological tests* are performed in cases of psychological disorders and brain-disabled people, primarily to assess the relationship between brain functions and personality. For some years now, I-O psychologists, in conjunction with clinical psychologists and medical and legal experts, have contributed to the assessment of the occupational implications of brain damage and related psychological trauma caused by industrial and traffic accidents, and have appeared as expert witnesses in legal proceedings (Gregory, 2007).

#### **21.7.1.7 Cognitive learning potential**

A special, and more recent, application of cognitive assessment is the assessment of *cognitive and learning potential* which relate to the dynamic approach on intelligence, that is, that intellectual abilities can develop and change with learning opportunities. Learning potential assessment aims to develop learners, applicants and employees to a higher level of cognitive functioning (for example, as required by an academic grade, job or managerial position). Examples of this are the Learning Potential Computerised Adaptive Test (LPCAT), developed in South Africa by M. De Beer (2002), and the APIL-B test developed by T.K. Taylor (Lopes, Roodt and Mauer, 2001).

#### **21.7.1.8 Competencies**

All ability measurements and non-cognitive personality measurements relate to the competencies necessary for successful job performance. *Competencies* are usually conceptualised as combinations or collections of specific knowledge, skills, abilities and personality attributes, which are required for a specific job or groups of jobs (Harris, 1998; Landy and Conte, 2004). However, the concept of competency in itself has no explanatory value or meaning; only the individual-differences factors collectively make up a competency. Examples of these individual-differences factors are the type of knowledge (for example,

mechanical), ability (for example, manual dexterity), skill (for example, driving) and personal attributes (for example, being responsible or patient). Even experience is considered an ability factor if the amount, time and type of experience are carefully assessed and collectively constitute the competency sought (for example, in the job done by a delivery truck-driver).

### 21.7.2 Personality assessment by questionnaires

Personality, and similarly, personality traits, refer to characteristic inherited and acquired *internal dispositions* and overt behaviours, which more or less indicate a person's consistent personality profile in behaviour, thinking and feeling, across time and situations. This definition also explains why *personality assessment* is also referred to as assessment of *typical performance*. All areas of personality – its structure, development, motivation and adjustment – can also be described and measured in terms of trait concepts.

*Questionnaires or self-report inventories* usually comprise various statements or questions, prepared in advance and often in multi-choice format, which subjects need to answer in particular ways. They might answer “yes” or “no”, “agree” or “disagree”, or they may rate statements on weighted scales, for example on three-, four- or six-point scales. Related to personality assessment are measures for emotions, values, interests and attitudes.

The rationale for a personality questionnaire is that individuals know themselves and are best able to judge and report on themselves. The responses on items are combined to furnish a score for a particular attribute or a number of attributes. An example of one of the items on a questionnaire for the assessment of emotional stability, which respondents must answer by selecting one out of three alternatives, is as follows: “During the day at work, I find myself worrying, which makes it difficult to concentrate on my tasks.” A number of similar items may represent the factor of emotional stability. Scores are interpreted in accordance with various norms and guidelines based on the test's theoretical rationale.

As with many other techniques, questionnaires can be administered individually or in groups. Many questionnaires can be scored by hand or by computer. Computer-generated reports and profiles are valuable aids in the interpretation of scores, but must always be integrated by an expert with other information of a person. A problem in personality questionnaires, more than in other personality measures, is *response sets* or socially desirable responses, which all relate to “faking good” or “faking bad”. This means that respondents

tend to answer in a specific manner that might not be totally valid or honest, but according to their own preferences or the way they think others would like them to answer. Table 21.2 illustrates the types of concepts measured by items in a personality questionnaire.

**Table 21.2** Trait descriptions according to the Occupational Personality Questionnaire

Relationships with people	Thinking styles	Feelings and emotions
<i>Persuasive</i> : how much people enjoy selling, negotiating and winning others over to their point of view	<i>Data rational</i> : how much people enjoy working with numbers and facts, and how much they enjoy analysing statistical information and making decisions based on facts and figures	<i>Relaxed</i> : how easy a person finds it to relax and to what extent he /she is calm and untroubled
<i>Controlling</i> : how much people like taking charge of others, managing, directing and telling people what to do	<i>Evaluative</i> : how critically people evaluate information, look for potential limitations, and focus upon errors	<i>Worrying</i> : the extent to which a person feels nervous before important occasions and worries about things going wrong
<i>Outspoken</i> : how freely people express their opinions, disagree with and criticise others	<i>Behavioural</i> : how much people try to understand motives and behaviour, and how much they enjoy analysing people	<i>Tough-minded</i> : the extent to which a person can ignore insults and to which he/she is insensitive to personal criticism
<i>Independent-minded</i> : how prepared people are to follow their own approach and disregard majority decisions	<i>Conventional</i> : how much people prefer well-established methods and favour a more conventional approach	<i>Optimistic</i> : the extent to which a person expects things to turn out well, looks to the positive aspects of a situation and has an optimistic view of the future
<i>Outgoing</i> : how lively and animated people are in groups, how talkative they are, and how much they enjoy attention	<i>Conceptual</i> : how interested people are in theories and how much they enjoy discussing abstract concepts	<i>Trusting</i> : the extent to which a person trusts people, sees others as reliable and honest, and believes what others say
<i>Affiliative</i> : how much people need the company of others, and how inclined they are to want close ties and friendships	<i>Innovative</i> : how much people feel that they generate new ideas and original solutions to problems and enjoy being creative	<i>Emotionally controlled</i> : the extent to which a person can conceal feelings from others and rarely display emotions
<i>Socially confident</i> : how comfortable people feel in the company of others, particularly strangers, and how at ease they feel in formal situations	<i>Variety-seeking</i> : how much a person enjoys variety, tries out new things, likes changes to regular routine, and can become bored by repetitive work	<i>Vigorous</i> : how much a person thrives on activity, likes to be busy and enjoys having a lot to do
<i>Modest</i> : the extent to which a person is reserved about personal achievements and inclined not to talk about him-/herself	<i>Adaptable</i> : how much a person changes his <i>her</i> behaviour to suit a situation, and adapts his/her approach to different people	<i>Competitive</i> : a person's need to win, how much he/she enjoys competitive activities and dislikes losing
	<i>Forward-thinking</i> : whether a person takes a long-term view, sets goals for the future, and is more likely to take a strategic perspective	
	<i>Detail conscious</i> : how much a person	

<i>Democratic</i> : how consultative people are, and how much they favour participation in discussions and decision-making	focuses on detail, likes to be methodical, organised and systematic, and becomes occupied with detail	<i>Achieving</i> : the extent to which a person is ambitious and career-centred, and likes to work to demanding goals and targets
----- <i>Caring</i> : how prepared people are to listen to others' problems, and how sympathetic and considerate people are towards others, as well as how helpful and supportive they are	<i>Conscientious</i> : how much a person focuses on getting things finished and persists until the job is done	----- <i>Decisive</i> : the extent to which a person makes fast decisions, reaches conclusions quickly, and is less cautious
	<i>Rule following</i> : how much a person follows rules and regulations, prefers clear guidelines, and finds it difficult to break rules	
<i>Social desirability</i> : The normative version of the Occupational Personality Questionnaire has a scale that measures if a person has been concerned with making a good impression in completing the questionnaire. <i>Consistency</i> : The ipsative version of the Occupational Personality Questionnaire has a scale that measures how consistently a person responds to questions in terms of the extent to which he/she systematically chooses certain traits as being more or less like him-/herself across the items that are presented.		

Source: Adapted from SHL (2006:9–11)

### 21.7.2.1 Personality traits

Differences in *personality traits* are most commonly assessed by self-report personality inventories or questionnaires (as in Table 21.2), usually based on particular trait theories or trait taxonomies, for example the 3-, 5- and 16-Factor Models (see [Chapter 16](#)) or specific aspects of these, for example measures on anxiety or self-esteem. Personality questionnaires can be constructed according to various approaches, for example some are based on a personality theory only, some use factor analysis (where items are grouped together) or a criterion (where items in the questionnaire must differentiate between the criterion and control groups) (Gregory, 2004; Furnham, 2008).

#### Measuring personality traits

Questionnaires based on Eysenck's Two-Factor Theory, such as the Eysenck Personality Questionnaire (EPQ), are used to measure personality in terms of three bipolar dimensions: psychoticism, extraversion and neuroticism. Although the EPQ has very good psychometric qualities (validity and reliability), and is used in clinical practice and research in many cultures (Cloninger, 1996), it is used less often in the work context. However, the concepts of introversion and extraversion, also used in the MBTI, are used in many applications, including work-related measures.

Cattell, as discussed in Chapter 16, describes personality in terms of 16 so-called “source or primary traits”, used in the 16PF questionnaires, which he

believes to be the underlying and consistent sources of behaviour (see [Chapter 16, Table 16.2](#)). Various forms of Cattell's 16PF Questionnaire are used extensively: personality is analysed into the 16 first-order factors, or these factors can be calculated and reduced to 6 or 9 second-order factors, including anxiety, extraversion, independence, toughness-poise, control and intelligence. His model and questionnaires are used all over the world in many applications (Cloninger, 1996; Foxcroft and Roodt, 2009; Weiten, 2011), including occupational settings, and have been adapted for use in South Africa.

Cattell's approach played a dominant role in one of the most recent developments in trait psychology, the Five-Factor Model (Goldberg, 1993), discussed in Chapter 16. Although many versions of this model exist, most generally agree on the five multi-faceted trait dimensions and specific descriptive sub-facets. Costa and McCrae's Neo-Personality Questionnaires (NEO-PI-R and NEO-FFI) are designed to measure the "Big Five" personality factors (Costa and McCrae, 1995). Most recognised personality questionnaires include all or some of these five factors.

The five factors measured by the NEO-Personality Inventory are extraversion, agreeableness, conscientiousness, neuroticism and openness (Cloninger, 1996; Gregory, 2007; Weiten, 2011). Each one of the five factors is described by specific facets or traits, which represent a finer analysis of personality, much like Cattell's idea of the six second-order factors and the 16 primary factors (see [Chapter 16](#)).

The trait model used by the SHL Occupational Personality Questionnaire (OPQ32) also utilises a three-domain model (Furnham, 1995, 1997; SHL, 2006) (see Table 21.2). The domains are feelings, relationships and thinking, whilst a fourth domain, energies, is implied in the other three. Each of the three main domains are described in detail by specific traits, bringing the total scales of the OPQ32 to 32 (or 33 if the social-desirability scale or the consistency scale is also counted). The OPQ32's items are written in work-related terms for occupational use, and these questionnaires are being used and validated in many countries (Saville, Sik, Nyfield, Hackston and MacIver, 1996), including South Africa (Kriek, 1996). This model attempts to assess most of the "Big Five" factors and to predict job success across time and in various situations and cultures (Robertson and Kinder, 1993).

The OPQ32 might arguably be a very good personality questionnaire to use in the work context, as evidenced by its multicultural database on thousands of employees all over the world. Other personality questionnaires, however, such as

the 16PF, have also been adapted to be more related to use in the work context, for example the 15FQ used by PsyTECH, SA, a consultation company in South Africa.

The Edwards Personality Preference Schedule (EPPS) (Gregory, 2004) measures 15 so-called “*manifest needs*” which underlie all behaviour, as stated in Henry Murray’s theory on personality. Some of these needs that are most frequently researched are achievement, dominance, affiliation, nurturance and aggression. The EPPS has been found to have good validity and to correlate well with the “Big Five” personality factors (Piedmont, McCrae and Costa, 1992).

It is interesting to note that Murray also initiated a projective technique, the TAT, which in a totally different and unstructured way also elicits some of these needs (Foxcroft and Roodt, 2009). David C. McClelland, R. Koestner and J. Weinberger (1989) based their theory, assessment and research of, amongst other things, achievement and affiliation motives on Murray’s needs theory. McClelland and Koestner also used TAT and related types of projective cards to elicit stories which they scored in a structured way to measure needs. Many questionnaire measures for job satisfaction are related to needs theory, as illustrated by Maslow and Herzberg’s theories on work motivation (Robbins, 2001).

### **Interpersonal traits and behaviours**

The assessment of *interpersonal and prosocial behaviours*, such as interpersonal attraction and affiliation, is important in the social applications of psychology (for example, dating behaviours, counselling and marketing behaviours, and in groups and organisations).

Perhaps the most influential works on *interpersonal traits* are those of Timothy Leary (1957), R.C. Carson (1969), Jack Anchin and Donald Kiesler (1982), Jerry Wiggins (1997) and D.J. Kiesler (1996). Various models that refine Leary’s work have emerged, such as the 1982 Interpersonal Circle for assessing and describing interpersonal traits. Interpersonal traits are also measured by scales in most of the well-known personality tests or questionnaires, such as the 16PF, MBTI, NEO and OPQ. Other questionnaires that more specifically evaluate interpersonal aspects of behaviour are the Impact Message Inventory (IMI), the Interpersonal Check List (ICL) and the Interpersonal Behaviour Inventory (IBI) (Kiesler, 1996). These specifically assess the interpersonal impact a person experiences when in contact with another person, as in therapy or counselling.

Interpersonal affiliation or attraction can also be assessed in terms of specific

determinants or features, including body image, facial beauty, physical fitness, sexual attractiveness and similarity in aspects such as attitudes and values. This can be done by questionnaires or other survey techniques, or by direct observation of behaviour in either real-life situations or in controlled experiments.

For example, A. Fallon (in Francois, 1996) used historical records to establish whether universal standards for physical attractiveness existed in earlier societies. S.L. Franzoi and S.A. Shields (1984) developed a Body Esteem Scale which measures three different body-esteem aspects in women (sexual attractiveness, weight concern and physical condition) and in men (physical attractiveness, body strength and physical condition). On the same lines, D. Russell, L. Peplau and C. Cutrona (1980) developed a scale for measuring loneliness. In South Africa, J. Duckitt (1994) developed a scale for determining subtle racism.

### **Measuring psychological health and adjustment**

Psychological well-being can be assessed from various perspectives. For example, it can be assessed from a positive stance which emphasise peoples' health status and internal dispositions or strengths; or measuring problematic behaviour and psychological maladjustment.

*Positive personal dispositions* are increasingly being used as measurement. The assessment of self-concept is not easy, because of the many types of concepts used to describe the self (Tesser, 2003). Self is also deduced from personality questionnaires. The Q-sort technique is used to sort self-statements by the person or by others into particular categories that indicate the structure of, for example, an ideal self, a real self, a social self and a working self. When emphasising concepts that relate to more positive internal dispositions in well-being, questionnaires or scales are used such as:

- Personal Orientation Inventory (POI) (Shostrom, 1976)
- Purpose In Life (PIL) Test (in Allen, 1994)
- Sense of Coherence (SOC)
- Life Orientation Test (LOT-R)
- Adult Coping Scale (ACS)
- Locus of Control Inventory (LCI) (Foxcroft and Roodt, 2009).

Questionnaires and checklists are measures that are most commonly used to assess factors such as:

- optimism and learned optimism

- hope
- self-efficacy
- locus of control
- creativity
- wisdom
- positive emotions such as love, empathy, humour, gratitude
- courage
- self-esteem
- emotional intelligence
- religious orientation
- morality
- forgiveness
- subjective well-being
- positive environmental influences,
- quality of life and
- positive coping (Snyder and Lopez, 2003; 2007).

However techniques such as narrative analysis can also be used to identify positive themes. Many of these positive individual differences factors relate to positive emotions and happiness, which have been shown to relate to improved behaviour across various areas, such as improved wellness, job satisfaction and work performance (Judge, Thoresen, Bono and Patton, 2001; Brockner (in Furnham, 1997); Leary and Tangney, 2003).

Table 21.3 below illustrates an example of a measure for subjective well-being, a type of measure that has been executed for many years (Warr, Cook and Wall, 1979; Keys and Magyar-Moe, 2003).

Questionnaires used to assess general health status are the McMaster Health Index Questionnaire (MHIQ) and the General Health Questionnaire (Goldberg and Hiller, 1979; Cook, Hepworth, Wall and Warr, 1981). To obtain satisfaction indices for life and work, the Satisfaction with Life Scale (SWLS) and the Minnesota Satisfaction Questionnaire (MSQ) can be used (Foxcroft and Roodt, 2009).

With regard to measures of *stress-related personality types* there are many scales. For stress in general the Sources of Work Stress Inventory (SWSI) is an example, whilst for burnout the well-known Maslach Burnout Inventory (MBI) is often applied (Maslach and Jackson, 1984; Arthur, 1990; Ganster, Shaubroeck, Sime and Mayes, 1991; Foxcroft and Roodt, 2009). The so-called “Type-A” behavioural pattern or personality types (Friedman and Rosenman,

1974; Matthews, 1988) are recognised by time urgency, achievement-driven actions, competitiveness, doing things quickly, aggressiveness and impatience, hostility at times, being easily upset, poor interpersonal relationships, and a lifestyle that puts them at risk of heart diseases (Matthews, 1988) (see box). Questionnaires such as the Jenkins Activity Survey (Jenkins et al., 1971) and the Time Urgency and Perceptual Activation Scale (TUPA) (Wright, McCurdy and Rogoll, 1992) were specifically constructed to assess various aspects of Type-A behaviours.

### **Recognising Type-A behaviour**

Do you recognise some of the behaviours in the list below? They are example of items used to assess Type-A behaviour, adapted from questionnaires and interviews. Answer “yes” or “no” and rate yourself on a six-point scale from 1 (= never) to 6 (= always).

1. You strongly emphasise words or phrases in your speech.
2. You generally or always do things at a quick pace.
3. You tend to want to start new things or initiate new efforts.
4. You get irritated if others are slow in doing things.
5. You tend to do many things at a time.
6. You find it difficult to relax even while on holiday.
7. You find winning important, whatever is being done.
8. People possibly think you are a difficult person to relate to.
9. You tend to be physically tense.
- 10.

You think that you are getting too little done in the available time.

The assessment of *personality disorders and other forms of psychopathology* and psychological health status mostly falls outside the work context, and will thus be referred to clinical experts. Such professionals use diagnostic systems, such as the DSM Classification System, to classify psychological disorders in terms of various types of information, such as clinical background factors, psychiatric interviews and clinical personality assessments. Except for clinical interviews and background data, projective techniques and psychological tests are used to assess certain emotional states. Examples of tests are the State-Trait Anxiety Inventory (STAI), the Beck Depression Inventory (BDI) and the Minnesota

Multiphasic Personality Inventory (MMPI) (Foxcroft and Roodt, 2009; Morris and Maisto, 2010). In the work context, assessing observable work behaviours might provide information on an employee's general well-being. Records of, for instance, illness, absences, late arrivals, complaints, disciplinary actions, accidents, errors (waste), interpersonal conflicts at work, underachievement and criminal actions (dishonesty) might say much about employees' health, and also about organisational health.

### Measuring life satisfaction and social well-being

Some disagreement exists on which factors should be included in an overall measure for subjective well-being. It seems, though, as if two broad factors are considered to be the most important (Ryan and Deci, 2001):

- emotional well-being (aspects such as life satisfaction, happiness, and positive and negative emotions or affect)
- positive functioning (aspects such as psychological well-being and social well-being).

Indicate on the four single-item rating scales how you feel about your own life satisfaction and social well-being. Use the following six-point scale:

1 = the worst possible situation overall

6 = the best possible situation overall.

**Table 21.3** Examples of items for measuring life satisfaction and social well-being

	Rating
<b>Life satisfaction</b> My life is ... My happiness in life is ...	
<b>Social well-being</b> My relations with other people are ... Achieving my purpose in life is ...	

A big challenge for positive psychologists is the integration and validation of concepts and techniques to be used as psychological-assessment instruments with an empirical knowledge base and the necessary psychometric properties (for example, to be standardised, valid and reliable), and to have value (for example, to be related to other variables, such as improved mental health, education and work performance). In this regard Snyder and Lopez (2003) suggested extended models, hypotheses and diverse methods for assessment, and Coetzee and Viviers (2007) make recommendations on how the many concepts in positive psychology, predominantly meant to study and measure wellness, could be integrated more meaningfully.

### **Lucas and Diener's findings about the impact of happiness and well-being on work performance**

Richard E. Lucas and Ed Diener (in Barrick and Ryan, 2003) summarised research findings concerning the impact of happiness and well-being on work performance:

- Happy employees are generally more active, sociable, creative, healthy and self-confident.
- Employees high in positive affectivity will have better, quicker strategies to process information.
- The nature of tasks and the work environment will, however, determine the impact of happiness on productivity, for example whether the more sociable and happy employee will facilitate or obstruct work performance.
- Happy employees could be efficient and creative in the execution of complicated tasks, but they might cause work errors owing to the inaccurate execution of tasks.

#### **21.7.2.2 Assessing career-development orientations**

The assessment of interests, values and attitudes, together with aspects of cognitive and personality traits, is especially important in the assessment of occupational development and related issues for career counselling and selection procedures. Assessment of *career-related concepts* is really about assessing the maturity of work-related development tasks. These might include certain personality characteristics, abilities, interests, values, career-development stages,

career decision-making and acquired career-efficacy. Assessment of these aspects also implies the assessment of the fit or congruence between the person and attributes of the work or occupational environment. A negative job-entry experience for new or young employees might cause disillusionment at finding the job and work environment dissimilar to themselves and their expectations.

**Table 21.4** Characteristic traits of Holland's Personality-Environment Types

Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Asocial	Analytical	Complicated	Ascendant	Acquisitive	Careful
Conforming	Cautious	Disorderly	Emphatic	Adventurous	Conforming
Frank	Critical	Emotional	Friendly	Agreeable	Conscientious
Genuine	Complex	Expressive	Generous	Domineering	Defensive
Hard-headed	Curious	Idealistic	Helpful	Energetic	Efficient
Inflexible	Independent	Imaginative	Idealistic	Exhibitionistic	Inflexible
Materialistic	Intellectual	Impractical	Patient	Excitement—	Inhibited
Natural	Introspective	Impulsive	Kind	Seeking	Methodical
Normal	Pessimistic	Independent	Persuasive	Flirtatious	Obedient
Persistent	Precise	Introspective	Responsible	Optimistic	Orderly
Practical	Rational	Intuitive	Sociable	Self-confident	Persistent
Self-effacing	Reserved	Nonconforming	Tactful	Talkative	Practical
Thrifty	Retiring	Open	Understanding		Prudish
Uninsightful	Unassuming	Original	Warm		Thrifty
Uninvolved	Unpopular	Sensitive			Unimaginative

Source: Holland (1996)

*Interests* are specific acquired action tendencies in personality inasmuch as they motivate people to pursue particular activities they have learned to like (or dislike), for example to do sport or execute particular career choices. There are many interest questionnaires (Owen and Taljaard, 1996; Gregory, 1996, 2004; Foxcroft and Roodt, 2005, 2011), of which Holland's Self-Directed Search (SDS) might be one of the most used in recent times. Other examples are the Strong and Kuder Interest Inventories, Life Role Inventory, Career Development Questionnaire and Vocational Preference Inventory.



**Figure 21.5** Liking one's job makes one happy.

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According to Holland's career-development theory, personality and occupational choice are based on reciprocal interaction, or the idea of person-environment fit. A person's career choice (environment) stems in part from his/her personality and motivation. People might have one or more dominant personality types and might tend to be attracted to work environments that resemble these, as measured by interests on the SDS. Holland identified six personality types and six parallel occupational environments (see Table 21.4). When making an assessment, one tries to find congruence between the personality type and a person's career or job choice. An extended list of careers congruent with particular personality types is given in a booklet on occupational titles accompanying the SDS. Early indications in research are that these interest patterns might coincide with certain personality and ability patterns.

Personality profiles obtained on personality questionnaires, as well as attitude and value analyses, might also provide information regarding interests and career choices through an analysis of the type of characteristics and preferences that are indicated.

It is assumed that if interests combine with abilities and other job competencies, they might explain “happiness” in work more than anything else can. Though research does not prove this beyond doubt, interests might be real expressions of a person’s self-concept and aspirations, and therefore explain real differences between people, whilst ability factors could then be utilised to realise these liking behaviours. This might be verified by the fact that if employees like their work, they mostly stay in the job and are good performers. In contrast, employees who are in a job or career they do not like often practice a hobby as a second job, and often retire early to follow their hobby or other career (Hogan and Blake, 1996; Lubinski, 2000). According to F.J. Landy and J.F. Conte (2004), interest differentiation between people is neglected, because employers are more interested in measures of abilities that show a better correlation with work performance compared to interest assessment, which is mostly associated with job satisfaction and long tenure in a job. This is especially relevant if one considers that interests are rather stable dispositions across long periods of time (Lubinski, 2000). These latter findings should, however, be considered as important because interests, then, may relate to job engagement and commitment, and are positive aspects that might contribute to employee and organisational well-being.

*Values* refer to preferred behaviour and include integrated beliefs regarding many aspects of life, including the self, family, other people, religion and work. In assessment practice the issues of values and attitudes are often integrated concepts, even interests in work and life are often integrated with values and attitudes.

### **Super’s Work Values Inventory: values in the context of work**

The values given below are examples of those listed in Donald Super’s Work Values Inventory (1970):

- altruism – helping others
- aesthetic – needing to have aesthetic ability (valuing beauty)
- creativity – trying out new ideas and suggestions
- intellectual stimulation – solving (new) problems
- achievement – doing good and productive work
- independence – enjoying freedom in own area of activity

- prestige – gaining prestige and mastery in own field
- management – enjoying authority over others
- economic return – money is important
- security – wanting tenure in job
- surroundings – physical work environment must be pleasant
- relationships – interactions with colleagues and supervisors are fair
- associates – being part of the work group
- way of life – being one's own person, good lifestyle
- variety – wanting change in job and activities.

In work specifically, assessors are interested in people's *work ethic*, that is whether people have developed a “work personality”, a productive orientation which refers to valuing work as necessary and a worthwhile life interest in order to achieve things for themselves, or whether people generally do not like work and have to be coerced into doing or achieving anything. Within people's general work ethic, they have many specific values on work issues, which often determine how employees behave in the workplace.

General values are often employed in the work context, because work values include needs and values that can influence occupational choices. An example of such a general value scale is the Allport-Vernon and Lindsey Scale (1951), which is based on Spranger's typology of theoretical, economic, aesthetic, social, political and religious values. The Rokeach Value Scale (Robbins, 2001; Gregory, 2004) described 18 terminal values (which are values to achieve during a lifetime, such as happiness and wisdom) and 18 instrumental values (specific behaviours, for example, ambition and obedience, used to achieve the terminal values).

S. Wollack *et al.* (1971) developed a Survey of Work Values to measure pride in work, job involvement, activity preference, attitude towards earnings, social status on the job and upward striving. There are many scales for the assessment of attitudes, such as those for work satisfaction (Weiss in Cook, Hepworth, Wall and Warr, 1981), work involvement (Warr, Cook and Wall, 1979) and work commitment (Hrebiniak and Aluto, 1972).

A popular and important concept of value is Edgar Schein's (1978; 1990) *career anchors*, which refer to certain orientations and preferences with regard to careers. People might have a dominant career anchor, or a few that might

influence their career choices and decisions, how they want to function in a job, or how they want to progress in a future career. Career anchors might influence the type of work people choose and the emphasis they put on aspects such as rewards, promotion and recognition. Career anchors change as people's careers develop. Schein identified these career anchors as:

- technical and functional competence
- general managerial competence
- autonomy
- security and stability
- entrepreneurial creativity
- challenge
- lifestyle.

With regard to measures of *integrity* at work, personality traits or aspects of morality come to mind, which are also associated with developmental stages in that age and maturity may influence moral judgement. A known scale of moral judgement is the Moral Judgement Scale (Gregory, 2004).

Measures of *spirituality and religion* are also used increasingly because employers and employees may consider such behaviour and values important in career and organisational choices (Schreuder and Coetzee, 2011). Questionnaires in this regard are the Spiritual Well-being Scale, the Faith Maturity Scale and the Spiritual Experience Index (Gregory, 2007).

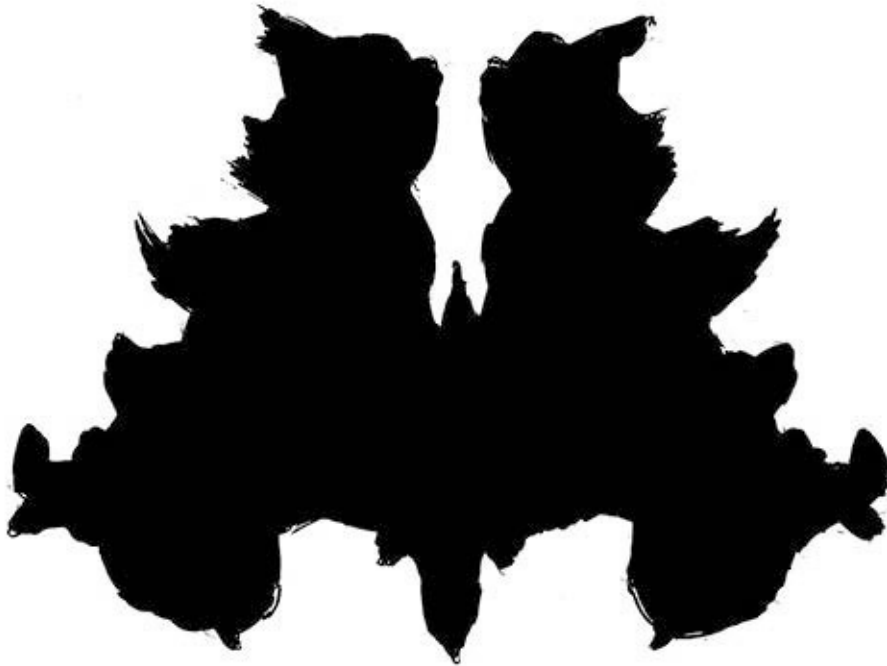
Because career development happens across the life span, and working involves all domains of personality functioning, it is important to integrate various aspects of personality (such as information from a person's background, findings from cognitive measures, and measures of personality and orientation).

### **ETHICAL READER: Integrity testing**

A more recent, and somewhat controversial, application in personality testing in the work context is integrity testing, referring to honest intentions and moral actions in the workplace. Measures might include the assessment of attitudes and admissions of honesty or dishonesty or, more indirectly, integrity can be measured by personality traits that have been found to predict honest work behaviours (Ones, Viswesvaran and Schmidt, 1993).

### 21.7.3 Personality assessment by projective techniques

Projective techniques, not used often in the work context, are intended to evaluate the covert or unconscious conflicts, motives and needs in personality functioning proposed in most psychoanalytic theories. These aspects are not always evident from questionnaires, observations or people's own verbal reports. In *projective techniques* subjects respond to unstructured stimuli, such as incomplete sentences, drawings, inkblots and pictures of situations, people and animals. Usually, subjects are given basic instructions to the effect that they should complete sentences or other stimuli, draw, interpret inkblots, tell stories from pictures of situations or do role plays, as they see or experience the stimuli. There are no right or wrong answers. The assessor interprets responses subjectively for every person, based on experience and psychological knowledge of projection and symbolism in human behaviour. In many instances, research on these instruments has established guidelines or "norms" (general themes) which can be used for analysis and making conclusions. Well-known projective techniques are the Rotter Incomplete Sentences Blank, the Draw-A-Person Test, the Rorschach Inkblot Test and the Thematic Apperception Test (TAT) (Gregory, 2004; Morris and Maisto, 2010; Weiten, 2011). Figures 21.6 and 21.7 respectively illustrate the types of stimuli used in the Rorschach and TAT techniques.



**Figure 21.6** A Rorschach-like inkblot.

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**Figure 21.7** A TAT-like card.

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The responses and interpretations of projective techniques are based on the projective rationale. *Projection* infers that individuals will project their conscious, and especially unconscious, attributes, experiences, needs, motives, values, conflicts and defences into their responses to the ambiguous or unstructured stimuli. When analysed, the responses, and sometimes also the way of responding, permit certain assumptions to be made about personality functioning. Interpretation demands professional training and experience, and interpretations are based on subjective judgements. Projective techniques are not as strongly supported by research compared to objective tests. However, well-researched scoring and interpretation systems are available for some tests, including the Rorschach and TAT techniques. Projective techniques are meant for clinical use on individuals in order to understand and explain behaviours that are often not easy to clarify through other techniques. In clinical use the Rorschach and TAT tests are still amongst the most-used instruments.

Projective techniques are also related to narrative analysis, because the

*thematic analysis* is also based on stories people tell and the constructions the assessor believes the respondent formed in his/her social context and during personality and behavioural development.

In work-related uses, most research on projective techniques indicates low predictability for occupational behaviours (Gregory, 2004). In terms of the techniques' original purpose and the subjectiveness of scoring and interpretation, this is understandable.

The main criticism of projective techniques is that they are not sufficiently objective or standardised in terms of application, scoring and interpretation.

#### **21.7.4 Behavioural assessment and related techniques**

Working from primarily behaviourist perspectives, the techniques discussed below are related, in that personality is mostly assessed by others through the *observation and rating of behaviour* on various types of rating scales and check lists. This is achieved by direct observation in:

- real-life situations (such as in interviews and therapy)
- simulated situations (for example, field studies and experiments) or indirectly in reality (such as observing people at an accident scene)
- on previous or historical incidents and records
- self-observations and self-ratings.

Rating scales and questionnaires allowing for monitoring by the observer, and subjects are often used in much the same way as with psychological questionnaires. A difference, however, is that the items or numerical scale points are *behaviour-based*. This means they contain statements or examples of behaviours or situations that need to be rated on scale points that have been exactly defined in terms of behaviours or situations. An example would be to ask a respondent to select an action from various options he/she would take if in a particular social, managerial or leadership situation (situational tests). Important contents for assessment and analysis in observational techniques is the overt and covert meaning in verbal and non-verbal behaviour, where aspects such as visual interaction, facial and bodily expression and the frequency and manner of speaking (paralinguistics) are considered.



**Figure 21.8** Using work samples as assessment.

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#### 21.7.4.1 Observations

Observations can be controlled in varying degrees, depending on the type of assessment or research. Assessors can be:

- direct participants in the activities being rated (for example, when working as a colleague or taking part in group discussions)
- obtrusive observers (for example, people who are indirectly, but visibly involved)
- unobtrusive observers (for example, people viewing activities through the use of one-way mirrors, therefore remaining unseen).

Observation can also be done by various people: an assessor, respondents themselves or fellow employees (such as in peer ratings). The point of behaviour observation is to gather evidence or examples of behaviour in order to classify it. In work applications, the so-called “critical incident technique” is often used to list recurrent behaviours from previous or recent work performance, which will indicate a particular trait, disposition or pattern of behaviour and also characterise the type of work environment or job. Examples of failures or successes in work performance might be useful in predicting future work

performance. Examples of failure for a client manager would be more than ten complaints every week, failure to return calls, arguments with clients, not recruiting new clients in a specified period, and loss of client accounts. Critical incidents of success for this person would be positive observations recorded on all these issues.

The assessment of applicants' or employees' performance in *work simulations*, such as work sample tests and situational exercises, gives a good idea of how the person might function in the real job. A typist, for example, in a typing test during selection, could be given all the resources to complete a set task, and be rated according to predetermined competencies and norms. In managerial training, for example, participants would need to indicate what type of leadership style they would follow if particular situations occurred in the work group or organisation, or how to complete managerial tasks.

#### **21.7.4.2 Biographical assessment**

*Biographical or demographic information* (biodata) is used to rate personality on personal historical facts and experiences. Although *biographical questionnaires* are used in clinical and educational practices, application forms used in the employment context are the most used and best researched. The rationale for using biographical information to assess personality is that past events and behaviour can predict future events and behaviour. Furthermore, much about personality can be explained in terms of what people have learned and experienced in their past, what they remember, and how they feel about these past experiences.

Biodata represents real-life data or critical incidents concerning people's experiences and behaviours and, if used correctly, can provide valuable information about personality functioning. For example, with biodata:

- an applicant's mobility in jobs (few or many changes) could be interpreted either as a positive development or as unreliability
- an old and solitary qualification could be seen as low internal motivation or self-drive
- one could determine why a person was never promoted, but stayed in the same job for a long time.

In biographical questionnaires, or during interviews, people answer questions about their personal history. In many instances, weighted application forms are used, in which certain types of biodata items are positively or negatively

weighted in terms of the importance attached to such data. If, for instance, one knows that, for insurance-sales positions, a particular age group, years of applicable experience and gender are important in particular contexts, this data can be given higher numerical values than other data, so as to distinguish applicants. To include weighted items in application forms, the weighing of these items for specific jobs or tasks needs to be based on research. It is possible, however, that some biographical data might have general predictive value for job success, such as age, having applicable experience and seniority.

Although biographical questionnaires are mostly constructed for specific uses or situations, there are standardised biographical questionnaires. Bruce J. Eberhardt and Paul M. Muchinsky (1982), for instance, reported a good stable factor structure for a biographical questionnaire by W.A. Owens and L.F. Schoenfeldt, in which most factors are personality-related. L.E. Smernou and G.J. Lautenschlager (1991) also found relationships between various biodata items and the personality factors of extraversion and introversion measured by the Maudsley Personality Inventory.

Biodata is often used as a screening technique in selection, to see whether applicants comply with certain minimum requirements such as qualifications and work experience, and to establish a shortlist of the best candidates for the final selection process.

Most reviews on biodata as a selection device report good reliability and validity, which compare favourably to coefficients obtained on cognitive ability measures (Rothstein et al., 1990; Hackel, 1986; McDaniel, 1989; Childs and Klimoski, 1986). Research has indicated biodata to be a good predictor of job turnover, job tenure, promotion, productivity, job success, training success, supervisory ratings, job achievements, personal feelings of job and career accomplishment, and research competence. Biodata is also a valid indicator for success in various types of occupations, as well as in professional, sales, clerical, skilled and unskilled jobs (Childs and Klimoski, 1986; Furnham, 1997). Biodata also seems to be a good predictor across time and situations and cultures. Craig Russell (1990) and O. Szymanski and G. Churchill (1990) also found evidence of good predictive validity, notwithstanding some criticism, for example, using unfair and sensitive questions.

When including questions in application forms and using certain data, assessors need to be sure not to discriminate or be unfair in any way, and be sensitive and consider whether it is pertinent to the criteria for the advertised job, and whether obtaining or using such data is allowed by civil and labour laws.

A problem in the provision of biodata is that people might give false information or distort their own history, for example by answering in socially desirable ways. The bulk of research suggests that biodata in general is a better predictor of work behaviours than personality questionnaires and should possibly be used more often. However, biodata needs to be reference-checked. The checking of references can be an involved process if more information about applicants, and not just previous employers or letters of recommendation are checked (Muchinsky, Kriek and Schreuder, 2005).

### **Obtaining biodata: asking the right questions**

Biodata can provide valuable details that can be integrated with information from techniques such as interviews and psychological tests, if the right questions are asked. Examples of biodata that can be obtained by asking the right questions on an application form or during an interview are:

- personal identifying details: names, ID number, birth date or age, group relationships, gender, marital status, vehicle licences, addresses
- developmental history: where the person grew up, and so on
- educational and training history: level of performances and when achieved, schools attended and post-school qualifications (college, university, and so on), informal courses (shorter certificates and other work-related training courses)
- work history: types of work, tenure, levels of work (positions), income levels, reasons for changes of jobs
- possible achievements in work life
- health status: health, illnesses, health habits and lifestyles
- interests: recreation, cultural, and so on
- reference points: people or addresses at which enquiries about the applicant can be made (necessary for reference checking).

#### **21.7.4.3 Assessment centres**

An *assessment centre* is a group-oriented and standardised number, or variety, of activities that provide the basis for the assessment of behaviour on various dimensions, by various assessors on various methods or activities. People are

rated by many assessors or groups of assessors on behaviour and performance dimensions relevant to the work situation or a specific type or level of managerial position. This is usually done in conjunction with other techniques, such as interviews, performance ratings of employees and ability and personality tests. Assessment centres are primarily used in the work context to assess managerial competence or potential. Assessment centres are sometimes used for selection procedures, but mostly to train or develop employees for possible promotion (Thornton and Cleveland, 1990; Kriek, 1991; Kriek, Hurst and Charoux, 1994; Jansen and De Jongh, 1997; Joiner, 2000; Murray, 2005).

In practice, the assessment-centre process consists of participants performing various types of activities during one or more days, observed by various assessors or observers. A key aspect of the assessment process is that observers take written notes of examples of observed behaviours in order to classify behaviours according to particular dimensional definitions and scale descriptions. Many of these dimensions are related to both personality and work performance, an important reason why assessment centres should be administered or controlled by professional psychologists, and why assessors need to be well-trained in behaviour observation.

At least some of the measurement techniques used in assessment centres simulate aspects of a job or a category of jobs, such as managerial jobs. Techniques or combinations used in assessment centres are psychometric ability tests, psychological questionnaires, sentence-completion tests, biodata, interviews, work samples and situational exercises. For work samples and situational exercises IT and audio-visual technology can be utilised, and are constructed to simulate real-life situations. Simulations are used, for example, to assess behaviour whilst participants are engaged in a meeting or discussion, or to assess managerial competencies after participants have completed simulated managerial tasks such as writing letters, answering complaints, analysing a financial problem or presenting findings to a panel (in so-called “in-basket” tasks).

*Situational tests* can also take the form of questionnaires offering various alternative courses of action to be taken in situations. An example is to ask a manager to select the action he/she would take if an employee refused to carry out an instruction (repeat the instruction, ask whether the employee is worried about something, fire the employee immediately, or change the instruction to the employee).

Situational tasks and tests can take the form of in-basket exercises: here the

participant “manages” in a simulated “office” a selection of tasks, gives directions, delegates tasks, structures work and controls the work of others – all in written or typed form (using letters, memos, and so on). In-basket exercises are sometimes also used outside assessment centres as a selection instrument. Other situational tasks are leaderless group discussions on actual work problems, problem-analysing exercises (for example, a marketing problem) and verbal presentations (where participants have to present a specific problem and possible solutions).

Developing assessment-centre processes and technologies is complex and needs to be done by well-trained psychologists and human-resources professionals. One of the crucial aspects is the identification and definition of personality-related performance dimensions on which the assessments are based (see the box below).

### **Suggested managerial-performance dimensions integrated with personality variables**

The following list of managerial-performance dimensions integrated with personality variables is suggested by Borman and Brush (1993):

- planning and organisation
- guiding, directing and motivating subordinates and giving feedback
- coaching and developing subordinates
- communicating effectively and keeping others informed
- representing the organisation to others and the public
- technical proficiency
- administration and paperwork
- maintaining good working relationships
- coordinating subordinates and resources to get the work done
- decision-making and problem-solving
- staffing
- persisting in order to reach goals
- handling crises and stress
- commitment to the organisation
- monitoring and controlling resources
- delegating

- selling and influencing
- collecting and interpreting data.

Assessment centres are generally rated as very reliable and as having more predictive validity than other assessment instruments, especially for selection, training and promotion. They are also more free of culture bias (Kriek, 1991; Kriek, Hurst and Charoux, 1994; Jansen and De Jongh, 1997; Gregory, 2007). In addition, assessment centres enjoy positive acceptance by management, employees and often other interested parties because they are based on work simulation and work-performance criteria.

However, they are not without critics (Briscoe, 1997). Criticism is levelled at the use of assessment-centre data for selection when this was not its original purpose. Assessment centres are also criticised for the complexity of procedures, possible cultural bias, and the expense (in terms of time and cost) of the procedures.

#### **21.7.4.4 Interviews and other interactional methods**

Interviews, in conjunction with questionnaires, are often used during surveys. They are also used for assessments in clinical and work settings, frequently in conjunction with rating scales.

An *interview* is a purposeful, face-to-face or interpersonal event, a discussion or communication between two or more people (for example, a selection officer and applicant), with a specific objective in mind (such as obtaining, giving or sharing information) in order to assess, influence or facilitate behaviour.

The effectiveness of interview assessment depends on how well this purposeful conversation between people is planned and conducted. Although interviews might differ in their objectives, the processes of most interviews are similar.

The interview for personality assessment is an interpersonal, interactive or interactional technique, for example when people are observed in dyadic and group discussions. This means that personality is demonstrated in the interpersonal situation between interviewer and interviewee or between group members. Some personality theorists, for example Sullivan and Rogers, emphasise that personality is best expressed in recurrent interpersonal situations and is also dependent on the quality of caring in relationships. Authors such as Jack Anchin and Donald Kiesler (1982), and Jerry Wiggins (1997), describe

personality in terms of interpersonal traits.

Because of the strong interpersonal influences during interviews, a skilled interviewer needs to plan the interview and create the conditions to facilitate or elicit the behaviours to be assessed. It is essential that the behaviour dimensions to be assessed are described and defined in specific terms, and are clearly reflected in the interview questions and rating scales.

The training of interviewers is also crucial. One should never assume that merely because people are humans and talk, meaningful communication takes place. To be effective observers and raters of behaviour in interviews, assessors need to learn not only to listen to the expressed, overt contents of messages (the report level of meaning), but especially to understand or “hear” the underlying meaning of messages (the command level of meaning). The command level of messages is often conveyed by how people say and do things, and by non-verbal behaviours (body language), rather than by what is said or done. This finds expression in how the body and features are moved (kinetics), the distance between people (proxemics), the tone of voice and the rate or speed of talking (paralinguistics), and so on.

An inexperienced person might find it best to use a structured format of interviewing, in which an exact procedure can be followed in terms of the questions, answers and method of scoring and interpretation. *Structured or patterned interviews* follow an exact interview format according to a specific schedule or guide on topics (for example, performance areas or aspects important to the job) and related questions. *Structured interviews* have the advantage that respondents are asked the same questions by a particular interviewer and, even, by different interviewers.

*Unstructured interviews* have little or even no structure in terms of the topics and questions to be covered and sometimes, even, how the interview will be started and conducted. However, even unstructured interviews can be well planned: the skilled interviewer determines which areas are to be covered, although the questions can be more open-ended and asked in a random manner.

Both structured and unstructured interviewing assessments of human behaviours and personality require skill. Assessors need to take care to construct and ask questions in a way that facilitates and does not inhibit communication and information.

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## Criticisms of interviews

The following criticisms have been made of interviews:

- Decisions might be made on the basis of first impressions, such as during the first five minutes.
- Decisions might be influenced by the order in which people are interviewed. People's attributes might be rated either better or worse than they should be, depending on the credentials of preceding respondents – the so-called “contrast effect”.
- Interviewers use their own preferences, prejudices and stereotypes in rating people.
- Decisions are influenced by interviewers being unprepared, untrained and inexperienced.
- Interviewers will take more note of negative information than positive information, or information obtained earlier or later in the interview may be regarded more important by assessors.
- Factors such as gender and race might influence interview decisions. Examples are an attractive member of the opposite sex, and belonging to either the same race or a different race (the latter under the pressures of affirmative-action requirements, for instance).
- Decisions are often more influenced by non-verbal behaviours than by verbal behaviours, for example an applicant sitting very still might be assessed as passive.
- Interviewers are influenced by the tendency of applicants to exhibit socially desirable behaviours (to put their “best foot forward”) or to practise “impression management”.

Interviews can produce many errors and subjective rating problems if not planned and executed well.

Although earlier findings on interview reliability and validity were often disheartening, more recent findings are more supportive. This is because:

- researchers and practitioners design interviews more carefully (for example, to ensure that specific interviews are used in specific applications)
- the questions asked are based on the relevant behavioural dimensions to be assessed
- there is more use of panel and structured interviews and other techniques in conjunction with interviews

- well-defined, behaviourally anchored rating scales are used to assess interview behaviour
- interviewers are being better trained.

In general, interviews have proved to have reasonable reliability and validity coefficients in relation to predicting work-performance outcomes (Arvey and Campion, 1982; Raza and Carpenter, 1987; Harris, 1989; McDaniel, 1989; Rynes and Gerhart, 1990). This is especially true if panel interviews and a structured interview format are used. In these cases a reliability of 0,70 or higher is reported (Campion, Pursell and Brown, 1988). Reliability is enhanced if interviewers are well trained and use the same well-defined behavioural dimensions and rating scales when assessing interview information.

Structured interviews also yield acceptable validity correlations of 0,63 (Schmitt and Robertson, 1990), especially those specifically designed for particular situations (Latham and Finnegan, 1993). Validity in interview assessment is enhanced if interviewers are “valid” (good at what they do) and if all interview information used in the assessment is valid or relevant to the interview’s purpose. Interviews remain less effective than biodata, scores on cognitive tasks, tests, assessment centres and work samples.

Related to interactional and projective techniques is narrative or discourse analysis. *Narrative methodology* is based on the analysis of stories people have and tell. All individuals and also groups and communities have stories, coupled to their cultures and development histories, which influence and shape their life roles (Howard, 1991; Callahan and Elliot, 1996; Snyder and Lopez, 2003), and this includes work experiences. Dominant stories in people’s lives are accepted as the truth and reality, which can impact negatively on some people, which is why some individuals and groups are marginalised. In many communities this might also explain phenomena such as racism and prejudice. Psychological problems might therefore also be the result of people’s “self-narratives”, that is how people tell, believe and internalise their own life stories. The assessor listens for and analyses underlying themes in order to assess how people construct their world, their self-perceptions, experiences, traumas and ideas about other people (Amundson, 1994; Holzman and Morss, 2000).

An important assumption of narrative psychology and assessment is that psychologists as assessors and researchers cannot really be objective and neutral, because they bring their own social constructions and formations, subjectivity, experiences and values into interventions, such as in research assessment and therapy. Interpretations of stories for underlying themes therefore also consist of

how the assessor construes the assessment data from his/her subjective world. Change in individuals and communities might occur if people then develop alternative or “new” stories about themselves, others and the world.

### 21.7.5 Psychobiological assessment and other techniques

Other techniques – some of them controversial – can also be used in personality assessment, such as the *polygraph* or *lie detector*, which is a physiological measure to assess the relationship between bodily reactions and psychological behaviours, and in this way to test integrity (see the box below).

#### **ETHICAL READER: The polygraph**

Although it has many critics, and is even prohibited in places, this technique is used in police and legal work, especially in criminal offences. The polygraph measures physiological changes in breathing, pulse rate, perspiration and blood pressure as a result of particular stimuli, for example questions about offences to assess honesty or truthfulness. Although controversial (Honts and Perry, 1992), physiological measurements such as those by the polygraph have enjoyed much success, largely because measurements are done on real bodily reactions under controlled conditions which cannot be faked easily (Ellaad, Ginton and Jungman, 1992).

*Genetic screening*, a technique sometimes utilised in the field of occupational diseases, is used to detect employees who are susceptible to particular substances or extreme conditions in work environments (Olian, 1984), and is also used in medical practices.

A specific application of physical and physiological measurements is in *ergonomic work design*. Its purpose is to achieve a comfortable fit between employees’ physical characteristics and the physical characteristics and demands of workplaces. Besides undertaking job and situational analysis to determine the fit between the employee and the work environment, ergonomists are also interested in human factors, especially to determine the cognitive and physiological nature of possible errors. They pay particular attention to the following aspects of human behaviour:

- *the margin of error*, which includes aspects such as omission (forgetfulness),

commission (incorrect performance), extraneous or deviant acts (behaviour not according to standards), sequential errors (actions performed out of sequence) and time errors (too early, too long or too late)

- *human reliability*, which indicates the possibility or probability that an employee will perform a task successfully (For example, a reliability probability of 0,65 means that the employee is likely to execute the task correctly 65 times out of 100.)
- *human capabilities and limitations*, in respect of hearing (auditory abilities), sight (visual abilities) and smell (olfactory abilities), which are important to employees for signal detection, and in respect of information processing (People have varying capabilities and limitations in respect of receiving, remembering and being able to retrieve information. People are capable of learning and concentrating optimally for only a particular time duration. Therefore there is an optimum mental workload that people can absorb whilst remaining alert and productive. Obviously, these capabilities vary for different people, in different jobs and in different situations.).

Many *pseudo-psychological assessment techniques*, such as handwriting analysis (graphology) and astrology are interesting, but there is mixed, scant or no scientific evidence for their efficacy (Ben-Shakar, Bar-Hillel, Bilu, Ben-Abba and Flug, 1986). Foxcroft, Roodt and Abrahams (2001) and Foxcroft and Roodt, (2009) provide interesting discussions of these techniques, some of which can also be seen as part of the origins of psychological assessment.

#### **21.7.6 Computer-assisted assessment**

In line with modern technology, computer-assisted testing procedures are used in many applications, especially in ability testing, potential assessment, and personality assessment (Gregory, 2007; Foxcroft and Roodt, 2009). Various types of computerised testing systems, especially in personality testing, generate psychological reports that are used in combination with other information.

A special format is computerised-adaptive testing (CAT), which is a system that assesses each person according to his/her ability levels as established by the difficulty levels of test items. It is valuable in the diagnosis of gaps in competencies and potential to learn.

Computerised psychological assessment has advantages and disadvantages, but should never replace the personal assessment relationship, and assessors need to adhere to principles for effective computerised assessment. Online

(Internet) assessment is being used increasingly, but many controversial issues accompany it, for example the thousands of invalid and popular so-called “tests” on aspects of personality and the difficulties in controlling the use of such techniques. Various countries, including South Africa (SHL, 2004), have guidelines for the control and best practice of online assessments (Foxcroft and Roodt, 2009).

## 21.8 REQUIREMENTS FOR EFFICIENT PSYCHOLOGICAL ASSESSMENT

Psychological assessment is by law a *psychological act* with numerous implications involving human rights, legal and ethical aspects, as well as sensitive social issues if and when psychological assessment is used, especially if used unfairly and in a discriminatory manner (see [Chapter 22](#)). These are the reasons why the psychological assessment industry falls under regulating bodies and has many policies and standards in place to regulate the use and prevent the abuse of procedures, techniques and findings. These range from legal requirements, for example various labour laws, ethical codes, and many guidelines with regard to best practices for traditional testing procedures and for computer-assisted and Internet assessment, as well as prescriptions with regard to the responsibilities of test publishers and test users (Foxcroft and Roodt, 2005, 2009; Gregory, 2007).

In terms of requirements for psychological testing quite a number of criteria are important, of which the reliability and validity of instruments and findings are the most important. If these two criteria are of an acceptable standard, many other concerns may fall away. However, various other aspects must be considered with regard to psychological assessment, of which the following are some of the most important:

- Techniques should have evidence of having been scientifically constructed with empirical data and manuals.
- Tests and techniques should be standardised with regard to administrative, scoring and interpretation procedures.
- Techniques should appear relevant to the subjects who are being assessed (face validity).
- Assessment procedures and techniques should be cost and time effective with regard to their applications.
- During the administration of procedures, and in the handling of results,

confidentiality should be considered with regard to clients and the storage of information.

- Only professionally qualified and competent psychologists and assessors should use certain instruments and relevant interested parties should have access to assessment information.

## **Reliability and validity**

Reliability and validity are expressed as correlation coefficients ( $r$ ), to demonstrate the effectiveness of measurements and the magnitude of constant or random errors in measurement (Kerlinger, 1973):

- Reliability involves the consistency of measurements. If a process or measurement is reliable, it will provide more or less the same measurement results when repeated in various situations or by different people. The higher the reliability coefficient (preferably higher than 0,70), the less chance there is of inconsistent measurement. Reliability coefficients can be expressed in measurements of stability, equivalence and internal consistency. Rater reliability refers to the degree of agreement between researchers and assessors, for example, similar observations by participants of similar techniques on the same behavioural dimensions.
- Validity is the psychometric requirement for a measurement technique to measure the construct it is designed to measure. For example, if one uses an IQ test, one needs to be sure that the questions represent aspects of intelligence and not another construct. A measurement might have high reliability, but low validity. Validity, like reliability, is expressed by means of a correlation coefficient (preferably higher than 0,35). Various types of validation indexes can be calculated, depending on the type of research, for example, for content, construct and criterion validities. The latter involves determining whether or not a particular predictor variable, for example self-esteem, relates to an external criterion such as job achievement. Another form of validity is face validity. However, this is not a technical or scientific form as are those mentioned earlier. It refers to the extent to which a certain instrument appears relevant for the user. If

employees believe or perceive a measure such as performance appraisal or a personality test to be job-related, they might be more honest in their responses.

## 21.9 SUMMARY AND CONCLUSION

The variety of explanations for personality and individual differences helps one to understand, consider and respect the rich nuances in people's behaviour. Personality integrates all of a person's visible and underlying attributes, which can be expressed in various types of behaviours, either consistently across time and situations, or with rich variability as a result of the interaction between the individual, situations and behaviours. Individual differences can have many origins and influences from biological, social, psychological and environmental factors.

In the work context, employees' competencies and occupational adjustment are primarily based on the direct and moderating effects of personality factors or individual-differences factors, such as cognitive abilities, personality traits, values, interests, emotions and biographical characteristics. How people differ on various individual-differences factors influences work performance, as do many other moderating factors, such as biographical and demographical attributes. Research indicates the significant work-relatedness of many individual differences factors with many work-related performance criteria. Optimal management and development of employee uniqueness and diversity depends on the ability to determine and optimise individual differences in employees and their congruence with organisational and situational attributes.

Whilst knowledge of individual differences has many advantages, the professional psychologist and researcher also needs to be aware of possible pitfalls. Murphy, Furnham, and Torf and Warburton (in Pearn, 2002) warn that the emphasis on individual differences can both facilitate and/or limit people's development if not managed well. In many practices, the preference is to select, promote and train people with the best, strongest or most positive personality profile and other attributes. The implications are that less-able people in jobs or applicants for jobs, promotions and training might be neglected, or that those people who should get opportunities or be developed will not get them or be developed.

Another issue is that if the "fittest" people, or people with the most suitable trait profiles, are selected to be congruent with organisational and job

characteristics, they might in the short term be able to adapt and cope, but might not respond well to the continuous change in work environments if these employees do not develop with the changes. One could also ask whether it is ethically and morally justifiable, or even possible, for employers to try to change and develop people after having assessed their profiles. Can one really change fundamental or set ability and attribute patterns? Some argue that it is possible and easier to change and develop a person's style of doing things than to change abilities and traits.

Another important issue is that information on individual differences needs to be used correctly. For example, theories and concepts on individual differences and their assessments need to be more domain-specific and conceptualised. In this regard the need exists to determine the applicability and relevance of broad and specific individual differences factors and how they relate to broad and more specific tasks and situations for specific individuals. Such research will maximise an important task of I-O psychologists and related experts: to recognise and develop or optimise the "fit" between employees' personalities and their workplaces, and in so doing promote optimal employee and organisational functioning.

Another challenge for psychologists is not to lose the real meaning of what personality is by "labelling" people through the use of trait and type classifications, even if it is useful. The danger is that psychologists will forget about the person as a human being, and about the dynamics of behaviour that give life to personality attributes in any context. An associated challenge is the utilisation of concepts from all personality approaches to explain individual differences in the work context.

Personality assessment, which forms the major part of psychological assessment in many applications in the work context, is aimed at establishing work-related personality factors. Knowledge of the relationships between personality factors or individual differences and work performance can be used to facilitate the best fit between employees and work environments. Personality assessment, through various types of tests and other techniques, uses constructs from personality theory and research about personality structure, motivation, development and psychological adjustment and with regard to all domains of human behaviour. Important assumptions in personality study relate to differences between people, the relative consistency of personality, and verified relationships between personality measures and work-success criteria. An important issue in psychological assessment also is to consider context of

personality and human behaviour and especially the cultural context.

Measurement constructs that are primarily used in personality assessment involve behaviours, personality traits, emotions, abilities, motivational factors, interests, attitudes and values. Personality assessment can be executed through psychometric tests on abilities, personality questionnaires, projective techniques, behaviour observation and rating techniques, interactional techniques such as interviews and narrative analysis, psychobiological measurements and integrated processes such as assessment centres. A new emphasis involves the assessment of the positive aspects of human behaviour in order to facilitate optimal development.

Assessment instruments from different perspectives help one to explain, describe and predict human behaviour in all its rich variety, and in and across different cultures. They also enable one to select applicable techniques for specific situations. But to avoid unfair and unethical assessment practices, one must never cease to seek out new techniques and verify and refine existing ones for specific people in their unique contexts. Effectively assessing personality in any context, however, will always largely depend on how valid and reliable measures are, and how competently the available scientific knowledge and methods of psychological assessment are used. One also needs to be sensitive to the power of assessment knowledge and how one's personal and scientific frames of reference will influence the selection of assessment methods, the interpretation of results, and the application of assessment results.

## **21.10 ASSESSMENT ACTIVITIES**

### **Multiple-choice questions**

1. Which item pair refers to tendencies to pursue a certain activity and enduring patterns of behaviour across time?
  - a) motivation and interests
  - b) career anchors and attitudes
  - c) cognitive styles and traits
  - d) interests and personality
  - e) interests and values.
2. What type of psychological-assessment or research approach emphasises establishing how personality factors and attributes are unique to specific individuals and groups?
  - a) clinical

- b) psychometric
  - c) nomothetic
  - d) biographical
  - e) ideographic.
3. Select a statement that is not true about the work-relatedness of personality.
- a) Biographical data predict work performance as good as cognitive ability.
  - b) According to research personality traits are poor predictors of work performance.
  - c) A congruent match of interest and ability measures may result in successful work performance and job satisfaction.
  - d) Emotions are related to and influence many individual differences factors.
  - e) Longitudinal research confirms the consistency of personality in persons, and across time and situations.
4. Ability measures and self-report measures of personality are similar in that in both instances ...
- a) attributes and behaviour are identified
  - b) underlying unconscious themes are identified
  - c) the assessor's subjective frame of reference has no influence
  - d) interpretation is based on the assumption social reconstruction
  - e) situational test theory initiated the development of the techniques.
5. Which assessment technique utilises various assessors to assess people on multiple criteria and activities to obtain an integrated profile?
- a) a group interview
  - b) a situational tests
  - c) an assessment centre
  - d) a group ability test
  - e) an In-basket test.

## **Answers to multiple-choice questions**

1 = d; 2 = e; 3 = b; 4 = a; 5 = c

## **Issues for discussion and practice**

1. Imagine that a labour union opposes you using psychological

assessments in your business for personnel selection and career development. Defend your stance stating arguments from your knowledge and this chapter.

2. You will know by now that using psychological tests to identify and apply individual differences in work practices, such as selection, is allowed only if it is non-discriminatory and if the psychological tests are valid and reliable. With this knowledge in mind, state and explain your agreement or disagreement with the following statement: “People are not equal in all respects. It is fair discrimination to utilise genetic and acquired differences between people to allow people to achieve differently in the workplace and to optimally develop their potential.”
3. Use the descriptions in [Table 16.3 \(Chapter 16\)](#) and [Table 21.4](#) and explain why you think that you are in the right job or experience good person-job fit.
4. If you consider the discussions of the various types of psychological assessment and the requirements for psychological assessment, explain how psychological assessment could be used as an advantage or how it could be misused.
5. Use any job advertisement and suggest a psychological assessment battery (selection of techniques) which you think would be effective to use to select the right job applicant.

## CASE STUDY

Read the following scenario and by using your knowledge from previous chapters and this chapter, answer the following questions or tasks.

### **Marketing manager**

An ideal career opportunity for the high-calibre person in the 35-to 45-age-group who enjoys working with people and have the initiative to face challenges and create new opportunities.

“Rainbow Fruit is a large agricultural-based company with its main offices in Pietermaritzburg in KwaZulu-Natal and have branches across all provinces in South Africa. Various types of fruit are essential ingredients in peoples’ diets and used in many other products. Rainbow is a leading producer and distributor of fresh fruit

and existing and new fruit products. We want to appoint a client-centred business manager and entrepreneur with an applicable tertiary marketing qualification and at least 10 years' experience, preferably in the agricultural and farming sectors and related business enterprises. We will need a manager who has experience in the important field of introducing and marketing fruit products to new farmers for production purposes, marketers and existing customers, and new consumers. Marketing the existing and new fruit products is achieved through various methods of communication and advertising.

The successful applicant will have sufficient drive and motivation, initiative and responsibility to plan and implement marketing strategies and plans across South Africa. He/she is aware of applicable health and business regulations in South Africa, and must be able to involve various interested parties and fairly manage business and personnel performance across all the business units. The right person will show resilience and not be discouraged by opposition, difficult customers and disappointments.

The candidate will need excellent marketing, advertising and communication expertise and be able to execute all management functions, especially planning, budgeting, using and leading available human resources at the branches, and purposefully influencing personnel and customers. The successful person likes to travel, maintains high business and ethical standards, provides excellent service, and ensures constructive customer and employee relations."

- 
1. Make a list of individual-differences factors in this scenario related to cognitive abilities, personality, orientations (attitudes, values and interests) and biographical factors.
  2. With regard to individual-differences factors in this profile, motivate the type of measurements you would use to assess applicants for the advertised position.
  3. Use Holland's and other classifications in [Chapter 16](#) and this chapter to determine why you think this position will suit you or not.

## **CHAPTER 22**

# **Research and other methods in psychology**

*Ziel Bergh*

**22.1**

## [Introduction](#)

**22.2**

[Research methodology](#)

**22.3**

## Attributes of science and scientific thought

**22.4**

Research design or research methods

**22.5**

## Research and assessment efficiency: Sources of error

**22.6**

Professional, ethical and social issues in psychological research

**22.7**

Other methods used in applied psychology and practice areas

**22.8**

## Summary and conclusion

**22.9**

## Assessment activities

## Learning Outcomes

After studying this chapter you should be able to:

- discuss the goals and principles of science and scientific thought
- explain types of research, research approaches and strategies
- explain the steps or activities and variables in scientific research
- discuss different types of research methods or techniques
- distinguish between descriptive and inferential (non-descriptive) statistics
- demonstrate an understanding of basic statistical concepts
- compare the meaning and value of validity and reliability
- explain how research findings can be generalised to other contexts
- identify possible errors and other sensitive issues in research and assessment
- discuss ethical codes for psychological research and assessment
- explain other methods in applied psychology or practice areas.

## 22.1 INTRODUCTION

People, employees and employers experience many life-and work-related problems. Some examples are the implementation of new technology and legislation, prejudice about gender, race, sexual orientation or religion, economic redistribution, downsizing and mergers in organisations, employee and union actions in pursuit of better salaries and other benefits, complaints about poor working conditions, using psychological testing in job selection, problems in productivity and work performance, workplace conflicts between employee groups, issues surrounding the death penalty, behaviour of politicians, and determinants of well-being, stress and HIV/Aids in workplaces. These examples illustrate just some of the real issues, problems and complexities of human behaviour in general and in the work context which require solutions.

Psychologists and other social scientists have to inform people about, and suggest solutions to, such problems – through research, assessment and other types of intervention. The terms “methodology” and “applications” in psychological disciplines (such as counselling, therapy, research, psychological

assessment, personnel selection, organisational development, training, career management, employment relations, consumer behaviour and ergonomics) refer to different strategies used to understand, develop and utilise human potential.

Usually, in academic discourse, methodology in psychology is associated with *scientific inquiry* or research methods only, which could include psychological assessment techniques (Pawlik and Rosenzweig, 2000). This emphasis on quantitative research, and recently also on qualitative research, is understandable because scientific psychology can be considered a science only if its theory or rationale and research questions or hypotheses are supported and verified by effective research processes.

As with psychological assessment, research methodology is a support discipline for most other academic and applied fields of psychology, not only in the execution of basic and applied research, but also in the practical use of concepts and methods that have been found valid and reliable, and in the construction or design of new methods. The first and major part of this chapter therefore introduces psychological research methodology, a subject dealt with fully in specific books on this topic.

Psychological assessment was discussed in Chapter 21, and many other methods used in applied psychology and the practice fields of psychology are mentioned in other chapters. Most often, these methods are included in specialised courses and books on the applied fields of psychology, for example, in therapeutic or personnel psychology. Few integrative sources deal exclusively with other psychological methods in the same way as research methodology is exclusively dealt with, except for the fields of psychological measurement, therapy and counselling. However, psychological research competencies are essential to verify existing theory and practices, to build new theory and expand psychological knowledge. Psychologists and human resources practitioners should have knowledge and competency regarding not only research processes and the interpretation and use of research findings, but also other methods and applications in psychology, especially of the practice fields in which they work. Research methodology is therefore emphasised and included in academic and professional training courses.

The *aim* in the bulk of this chapter is an introductory discussion on the nature and value of psychological research, research processes and concepts, as well as a summary or classification of some other methods in psychology in general. Research in personality is an important aspect area of psychological research and has been briefly covered in Chapter 13.

## 22.2 RESEARCH METHODOLOGY

The task of psychological research is, through *systematic inquiry*, to find answers and solutions to research questions with the aim of verifying psychological knowledge and practices and ensure that it remains relevant and up to date, thereby empowering psychologists to use psychological knowledge and practices to the best advantage of individuals, groups and society.

### 22.2.1 The nature and advantages of scientific research

Psychological research questions can originate in many ways, such as in psychological theory, previous research findings, new ideas about the relationship between various aspects of human existence, behaviour and the environments in which people act, or the need to apply research findings in solving problems or to develop practical methods. In general, research processes in different disciplines are quite similar, however, the field of research will determine the kind of behaviour studied and the research questions, which will determine which methods of data collection, analysis and interpretation are used. Hook *et al.* (2004) in their critical psychological approach to research also indicate how certain research view points within existing research traditions and socio-political contexts influence the processes and outcomes of research. In this regard feminist groups indicate how gender bias is practiced in social scientific research.

#### **ETHICAL READER: The necessity, influence and power of research**

There have been questions regarding the necessity of some research, and the influence and power that research-generated knowledge can exercise in people's lives. Some authors, although admitting the necessity of research, also criticise the discriminating nature of the politics and use of knowledge as exercised by research practices and organisations (Jansen, 1999; Hook *et al.*, 2004). In this regard psychology, both internationally and in South Africa, does have a history of prejudiced research processes and discriminatory use of such findings, examples being the interpretation of race and gender differences with regard to intelligence and other competencies and orientations.

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Psychological research consists of both basic research (research to obtain knowledge) and applied research (research to assess the applicability of knowledge and practices). See box for examples of research questions. Psychological research contributes to most walks of life and scientific disciplines (Terre 'Blanche and Durrheim, 1999). Research in the human, social or behavioural sciences includes many disciplines, such as psychology, sociology, education, ethnology, criminology, social work, management and economic sciences, communication, nursing, psychiatry, geriatrics, and health sciences such as sport and recreation.

### **Examples of research questions**

A few examples of research questions from the contents in this book might help in the understanding of research concepts and processes. These examples are referred to throughout this chapter:

- How does muscle fatigue influence employees' performance in assembly tasks?
- Does the difference between self-efficacy beliefs of men and women influence career choice?
- What is the relationship between learning methods and academic performance of first-year I-O Psychology students?
- Does job satisfaction influence work motivation levels in managerial jobs?
- How does birth order influence the attachment behaviours of children?
- Does a relationship exist between conscientiousness and organisational citizenship behaviours?
- Does social support influence the impact of work stress on employees?
- Do two different methods of feedback influence employees' work performance differently?
- Does culture influence people's experiences of crime in South Africa?

Research implies the systematisation of knowledge, in which philosophy,

common sense, personal beliefs, biases, emotions, speculation, incorrect theories, perceptions, assumptions and hypotheses are tested in objective ways, and the logical coherence of phenomena becomes accepted as scientific truth. Thus, *scientific research* is an objective, empirical and logical activity in which scientists, through logical and empirical procedures, endeavour to establish theories and facts that can stand for the truth. This description of research indicates that scientific research has the advantages of systematic inquiry, control, clarity and precision to obtain valid information and avoid unfounded interpretations and generalisations.

With regard to truths in psychology, R.R. Hock (1999) describes 40 psychological research studies in various areas that have changed psychology, as these studies represent a continuing basis for psychological knowledge, practice, research and discourse, even if the original findings have been changed or adjusted (see the box below). Reading Hock's book, or the original sources, will give insight into various research approaches, strategies and methods.

### **Examples of influential classical research in psychology**

The following list includes examples of influential research that influenced scientific psychology:

- Gazzanga, M.S. 1967. The split brain in man. *Scientific American*, 217:24–29. (Biology and human behaviour)
- Spanos, N.P. 1982. Hypnotic behaviour: A cognitive, social, psychological perspective. *Research Communications in Psychology, Psychiatry, and Behaviour*, 7:199–213. (Consciousness)
- Bandura, A., Ros, D. and Ross, S.A. 1961. Transmission of aggression through imitation of aggressive models. *Journal of Abnormal and Social Psychology*, 63:575–582. (Learning and conditioning)
- Tolman, E.C. 1948. Cognitive maps in rats and men. *Psychological Review*, 55:189–208. (Intelligence, cognition and memory)
- Harlow, H.F. 1958. The nature of love. *American Psychologist*, 13:673–685. (Human development)

- Festinger, L. and Carlsmith, J.M. 1959. Cognitive consequences of forced compliance. *Journal of Abnormal and Social Psychology*, 58:203, 210. (Emotion and motivation)
- Rotter, J.B. 1966. Generalized expectancies for internal vs external control of reinforcement. *Psychological Monographs*, 80:1–28. (Personality)
- Freud, A. 1946. The ego and the mechanisms of defense. New York: International Universities Press. (Psychopathology)
- Smith, M.L. and Glass, G.V. 1977. Meta-analysis of psychotherapy outcome studies. *American Psychologist*, 32:752–760. (Psychotherapy)
- Asch, S.E. 1955. Opinions and social pressure. *Scientific American*, 193:31–35. (Social psychology)

An important aspect or product of psychological inquiry and its findings is the *classification* of human behaviour and processes into similar and dissimilar classes based on the attributes of such behaviour and processes (Estes, 2000). Nowadays psychology uses innumerable classifications in explanation, assessment, research and applications with regard to human behaviour. For example, there are classifications in memory (primary or short term and secondary or long term), learning (classical and instrumental association or conditioning processes), types of psychological disorder, various taxonomies of personality traits, cognitive behaviour and processes, and consumer lifestyles and preferences.

The goals and advantage of scientific research in psychology are to measure, describe, understand or explain, and apply and predict behaviour (Weiten, 2011). Research findings often also lead to practical applications and enable psychologists and other social scientists to have more control with regard to human behaviour (that is, to know what to expect in general and in certain situations). In a sense, research represents creative problem-solving of a human nature (Weiten, 2008). These scientific goals direct endeavours to find the most suitable fit between individuals and groups, and the various contexts or environments in which people function. In the work context, this fit is important in applications such as job design and job description, personnel selection and placement, assessment of potential and work performance, improvement of productivity, managerial assessment, training and development, career

counselling, physical, occupational and psychological health, and organisational development.

Research activities provide careers and job tasks not only in psychology, but also in many other disciplines, for example, journalism, auditing and detective work, and the legal profession. However, the objectives of research, as well as some of the methods, in other areas differ from those of scientific psychological research activities and jobs. Psychological research at research institutions and universities is often aimed at basic or foundational knowledge, although many psychologists are also involved in applied research to solve problems in workplaces. In this regard Linda Richter and Sheila Tyeku (in Terre 'Blanche and Durrheim, 1999) argue for the necessity of psychological research and opportunities for careers in research in national and international contexts and in various environments, such as in governmental, non-governmental and tertiary institutions and in the private sector, as well as in the community at large.

The context or factors impacting on a research problem could be more complex than stated in the above-mentioned examples. Researchers usually state the main factors in their research, but in the execution of the research try to control all possible influencing factors, and in research findings also interpret possible influences.

## 22.3 ATTRIBUTES OF SCIENCE AND SCIENTIFIC THOUGHT

In general, *scientific thought*, supported by and expressed through language, can be defined as the cognitive or intellectual activities people use to give meaning to their experiences of people, things and events.

A *science* can be defined as a system of concepts (theories, constructs or statements), findings and methods that is generally accepted by other scientists or supported by other scientific findings. Science uses the logic of inquiry (research) or a specific method to obtain knowledge and solve problems. Because of its foundational theory, practices and empirical method of inquiry, I-O Psychology can be viewed as a science in many respects, compared with pseudoscience and unscientific psychological knowledge, such as our own subjective ideas and theories, folklore, prejudices and superstitions (Weiten, 2011).

The objectives of science are to accurately describe research phenomena or variables, to explain these phenomena with regard to their causes, to predict the

possible future occurrence of phenomena, and to control conditions and variables that might influence variables and the interaction between variables (Christensen, 2001). The primary advantage of scientific inquiry is that it uses objective observation in order to establish rules that are not only based on subjective opinion and bias to describe, explain and predict phenomena using objective analysis, comparison, classification and description (Kerlinger, 1973; Mouton and Marais, 1990; Mark, 1996; Christensen, 2001). In other approaches to psychological research, for example, research on gender and feminist issues, traditional positivist research with the emphasise on objectivity and valid results is criticised, because it does not reflect the subjective nature of human behaviour and often ignore the realities of peoples' social contexts and the role of politics in research (Hook et al., 2004).

### **ETHICAL READER: Poor research processes**

A science is not only about the topics or contents being studied, but also about the underlying thought processes and approaches used in studying and solving problems. In this regard, although much controversy and untested speculation still exist, many concepts and methods from the various psychological perspectives can be regarded as scientific truths, because they have stood the test of unbiased and objective research. At the same time, some research in psychology can be criticised for poor research processes, whilst disagreement also exists with regard to many topics and concepts in psychology. Sources or methods of non-scientific knowledge and inquiry often used to make decisions about people include personal experience, so-called "reliable" sources and authorities, intuition, untested logical reasoning, rationalisation, analogies, and cultural norms and values (Dipboye, Smith and Howell, 1994; Christensen, 2001). Other sources of incorrect knowledge include the many subjective measurement errors that people make in their judgements, because they are human and are influenced by their own values and prejudices (see Section 22.5.4).

Most psychological research arguably was and still is based on a so-called "*positivistic*" approach or a *hypothetico-deductive model* of scientific research.

This process involves starting with some theory about phenomena, stating hypotheses, making objective observations, and then interpreting and drawing conclusions based on these observations (Terre 'Blanche and Durrheim, 1999; Christensen, 2001). According to Terre 'Blanche and Durrheim, however, modern scientific research has changed, because traditional ways of research have opened the way to new approaches or standpoints on research or knowledge inquiry, an example being the execution of more qualitative research. Other approaches towards studying human behaviour and political, social and cultural issues (such as gender, race and class) have strongly influenced research design and the interpretation of research findings. The gap between academic scientific knowledge and popular and unscientific sources of knowledge has also become smaller. The use of information from the Internet (often untested and of uncertain origin) is an example.

The following attributes characterise a scientific approach (Mouton and Marais, 1990; Rosenberg and Daly, 1993; Dipboye, Smith and Howell, 1994; Terre 'Blanche and Durrheim, 1999; Christensen, 2001). These attributes qualify scientific research and thought as logical, and as using methods and conclusions that are different from pure speculation or guessing (in which conclusions are based on people's own ideas, intuition, casual observations and, even, subjective preferences and prejudices).

### **22.3.1 Empirical thinking**

*Empirical* generally refers to “tested” knowledge and conclusions based on direct (and sometimes indirect, but systematic), repeated and incontrovertible observation and experience.

### **22.3.2 Verification and objectivity**

*Verification* means that research and the reported findings must be of such a nature that other researchers are able to repeat the research under more or less the same circumstances using similar methods. Verification ensures certainty, and extension of knowledge, and even allows for previous findings and errors to be rectified. For example, J.R. Vokey and J.D. Read (1985) repeated Wilson Bryan Key's experiments on messages in subliminal advertising, and found that Key's claims on subliminal perception (that people are not aware of influence) in advertising were unfounded.

### **22.3.3 Testability**

*Testability* means that research questions must be realistic and possible to assess repeatedly. The concepts or variables being researched must be precisely defined and measured against current knowledge and available assessment methods. Some concepts in psychology are difficult or even impossible to measure, such as metaphysical aspects, dreams and unconscious states. In science, also in psychology, pseudoscience sometimes results because of poor application of assessment, research knowledge and practices.

#### **22.3.4 Logical thinking and reasoning**

Different types of problems require different problem-solving and decision-making skills. *Logical thought* is not a scientific method in itself, but logic must be the basis of all scientific thinking. It allows for hypotheses to be logically derived and for the systematic and realistic interpretation of data and results. The use of logical principles, facts or truths, singly or jointly, may yield new truths, which implies that any recognised truth is and must be based on indisputable grounds. In this regard induction and deduction are modes of logical thinking

*Deduction* means to arrive at a specific conclusion from general principles. For example, fair remuneration promotes work satisfaction, therefore the organisation pays fair wages, therefore workers in the organisation are satisfied.

Most definitions and hypotheses are derived through a process of deduction. Definitions are statements of “what things are” based on what is already known about things. If, for example, one deduces that “personality is the result of the interaction between hereditary or biological factors and environmental influences after birth,” one has arrived at a truth that is widely accepted in psychology.

*Induction* is a process of deducing general rules from specific principles, the latter being accepted as existing truths. For instance, workers in the organisation are satisfied, the organisation pays fair wages, therefore remuneration affects work satisfaction. Induction is applied when hypotheses are tested, because one generalises from specific research findings.

Both deductive and inductive reasoning, though quite logical, can produce unrealistic or unreasonable conclusions, especially if biased by hidden agendas, prejudices, opinions and emotions.

Other forms of thinking and reasoning are represented by the processes of forming images, conceptualisation (the forming and classification of concepts), judgement, problem-solving, decision-making and creativity. (See [Chapter 7](#).)

Many authors, such as Kerlinger (1973), and Pawlik and Rosenzweig (2000),

support these principles when they assert that scientific methods differ from common sense and folk and lay psychology in that these principles force scientists to be systematic, exert control, look for relationships between things, and avoid speculative or metaphysical explanations. In this way many important insights and facts about human behaviour have been scientifically established, which are now being used in psychological theory, applications and practices.

One such example is the finding that previous learning is not automatically wiped out, since memory traces are more or less permanently part of a person's long-term memory. Thus, problems of memory are not in fact attributable to forgetting, but rather to the methods people use to retrieve stored information. This finding has many implications for the various applications of learning and training in the human context (Pawlik and Rosenzweig, 2000).

Also, in scientific journals, for example, the "*South African Journal of Psychology*" and the "*South African Journal of Industrial and Organisational Psychology*", these criteria are applied to render articles suitable for publication, and in this way ensure scientific control and a scientific way of inquiring, reporting on, and communicating about research processes and results. Kelly (in Terre 'Blanche and Durrheim, 1999) discusses in some depth the requirements for effective qualitative research, which are mostly executed in interpretive and constructive research approaches. In contrast, Donald Bersoff (1995) reports on the various ways in which research findings can be manipulated to achieve desired outcomes.

In the following sections answers are provided to some of the questions one might have whilst planning and executing one's research (for example, which process and steps to follow, which research strategy is best, which variables to identify and control, how to obtain the necessary information, what research hypotheses to arrive at, how to organise and analyse the data, which research errors to avoid, and which ethical aspects to consider).

## **22.4 RESEARCH DESIGN OR RESEARCH METHODS**

*Research design* refers to a specific, purposeful and coherent strategic plan to execute a particular research project in order to render the research findings relevant and valid. Research design specifies the conditions and ways to collect and analyse information, and also considers factors such as cost implications. Planned research design means systematic observation, guided by the research

questions. Effective research design is characterised by a clear research purpose, an explanation of the theoretical paradigm that forms the rationale of the research, an explanation of the context in which the research occurs, and selection of the techniques for collection and interpretation of data. A good research design is both *valid* through plausible research questions or hypotheses and *coherent*, meaning that the research purpose and techniques are suitable for the total research framework as stipulated by the research paradigm (Terre 'Blanche and Durrheim, 1999; Larsen and Busss, 2208).

Despite preferences and paradigms, however, research design should really be a decision-making process in which the investigator has to take decisions to solve the what, how and why of specific research problems, all aimed at making the process of research and the findings as relevant, valid, unbiased and objective as possible within the research context and cost factors of the research.

#### **22.4.1 Research traditions or paradigms**

Researchers from different disciplines or schools of thought have their own preferences for research models, traditions or paradigms. Most research in the social sciences is executed within the positivist, interpretive or constructionist paradigms, or a combination of these – as all three paradigms may have value, even during the same research project. The chosen paradigm will be determined by the researchers' work and personal preferences, and the type of emphasis they want to extract from research observations (Terre 'Blanche and Durrheim, 1999; Holzman and Morss, 2000; Hook et al., 2004).

The *positivist paradigm* is concerned with external reality according to certain laws, and is used by “detached” and objective observers who have tested their hypotheses against experimental and other quantitative methods. Most of the examples in this book fall in this category, because it involves objective measurement or experimentation to assess the impact of the stated factors or conditions on human behaviour.

In comparison, the *interpretative paradigm* is concerned with qualitative inquiry about the internal and subjective nature of reality in human beings, and is used to explain these realities by means of studies of relationships or interaction between people. An example would be when researchers talk to and interact with disgruntled employees, and become aware of the feelings that define or qualify their job dissatisfaction and poor performance at work.

The *constructionist paradigm*, which is associated with postmodernism in psychology, is used by researchers who believe that reality is constructed by

individuals and groups in the way they think, and in how they say and do things. Adherents of the constructionist model are often politically motivated, generally suspicious and critical of existing ideas. They form their own versions of reality by more subjective methods, for example, narrative analysis or discourse analysis, which are the analysis of written and spoken communication (Durrheim, 1997). An example of constructionist research, which is related to qualitative interpretative research, would be seen when researchers analyse employees' discourse, that is, their written and spoken language, in order to draw conclusions about how they and others construct their world of work. Such conclusions, for example, may reveal possible conflicts between work motivation, work values, and employee perceptions of the workplace compared with those of the employers.

In addition, and often related to the research tradition of the researchers, for example, positivist, interpretative or constructionist, an early research decision relates to the theoretical paradigm that will define the types of concept being researched, the type of measurements that will be used, and how interpretations will be made and used. Examples are whether the research will be defined by a psychoanalytic, behaviourist, humanistic, interpersonal, cognitive, trait or ecosystemic school of thought or perspective, and whether the research is executed in applied fields such as personnel, organisational, career, therapeutic, health and research psychology.

### **ETHICAL READER: Different paradigms, different interpretations**

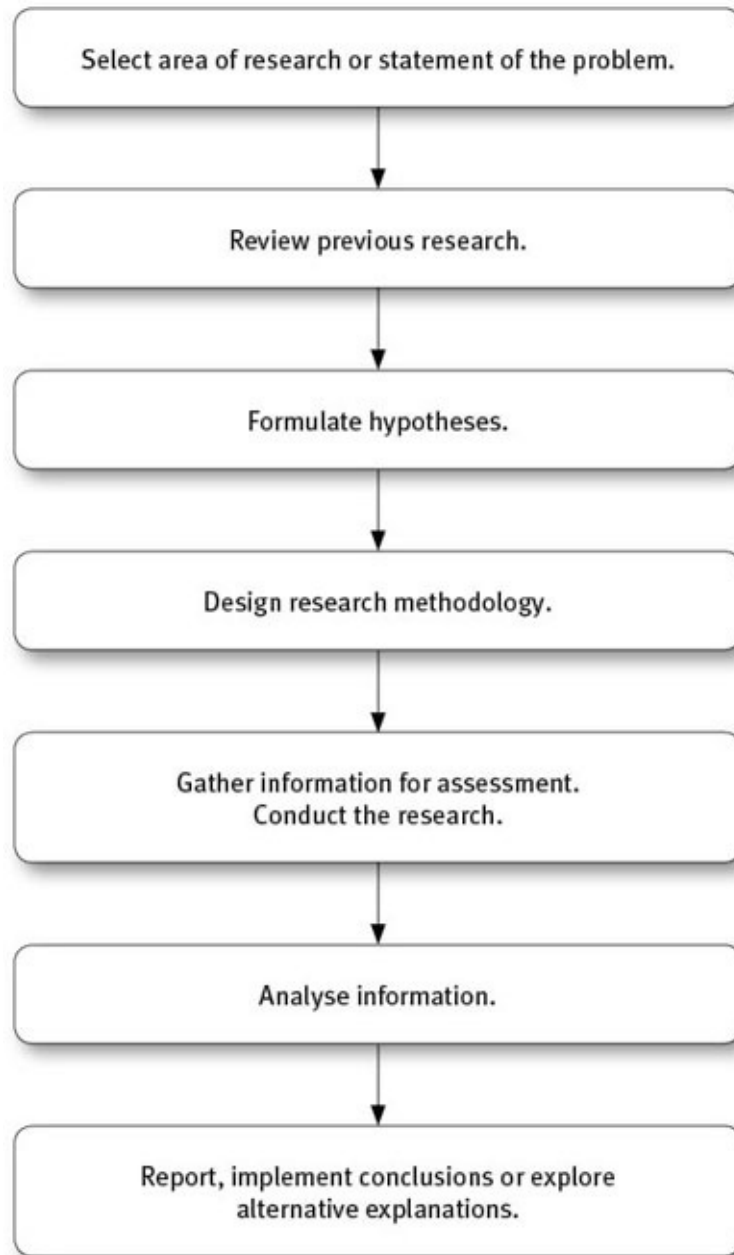
Although the hypothetico-deductive model or positivist paradigm of research is a valuable and frequently used model in psychological research because of its emphasis on accurate measurement and research control, researchers also need to be aware of other models or paradigms (for example, interpretative and constructionist paradigms) or at least other factors that may influence their research endeavours. The differences in paradigms might cause researchers to interpret the same research results quite differently or in alternative ways. The book edited by Martin Terre 'Blanche and Kevin Durrheim (1999) provides a broad, but also critical, analysis of many factors that influence scientific research, and contains many case studies in South African contexts.

However, researchers need to be careful of criticising and perceiving valuable positivist research and psychology as being influenced by rigid, racist, sexist, heterosexist and other assumptions with which they might not agree. Durrheim (2001), for example, warns against representing South African social psychology as stuck in the “old” ways of accounting for behaviours, practices and feelings after the discourse in South Africa changed.

#### **22.4.2 Steps or activities in the research process**

In general, researchers of all traditions should follow a systematic method comprising certain logical steps and certain ways of deductive and inductive thinking or reasoning. According to the traditional or positivist model of research, research follows a lawful process or order of falsification or justification, that is, based on an empirical process, it rejects false ideas, which will leave correct or acceptable ideas. During this process researchers generally use a so-called “hypothetico-deductive model”. The scientist starts out with a theory about the nature of a phenomenon, followed by the statement of hypotheses or research questions about the phenomenon and its relationship with other phenomena, observation (assessment) of the phenomenon, and interpretation of and conclusions on the findings (Kowalski and Westen, 2011; Weiten, 2011). This represents a process of deductive and inductive reasoning.

The process and steps in research, which are in fact interdependent, are reflected in Figure 22.1. This process indicates that research design is also a cyclical or systemic process in which all aspects are related and interact to determine effective research and valid findings. An important criterion for the success of scientific research is *design coherence*, meaning that all aspects of the research (the purpose, underlying paradigm, research context and research techniques) should be appropriate for the total research framework (Terre Blanche and Durrheim, 1999).



**Figure 22.1** Steps in the research process.

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#### 22.4.2.1 Defining/stating the problem or purpose of research

A crucial activity is defining the precise *research problem* or research question in terms of a soluble problem, such as “What is the relationship between work motivation and work performance?” or “How does social support influence work stress?” Related to the purpose or objective is the need to define the research

subjects or objects and units of analysis for the research, for example, whether individuals, organisations or groups will be included, or whether the research is about human attributes (such as interactions, behaviours, traits, values, attitudes, perceptions and traditions) or about the products of people (such as writings, discourse, artwork and work performance). It is important to decide on the research samples, which will be determined by the units of analysis specified in the purpose of the research. This relates to how many people, situations, events or measurements will be included. An important criterion for sample selection is the representativeness of people, situations and information in order to obtain sufficient data to make the required statistical calculations, or to obtain enough themes to make viable interpretations, conclusions and generalisations.

An early decision must also be taken as to what type of research will be undertaken. The box below explains different types of research.

### **Types of research**

- *Basic research* (also referred to as academic research) is directed at obtaining knowledge about a subject, studying topics, and verifying and building theory, as illustrated by Hock's reporting on 40 important psychological studies (Hock, 1999). In clinical psychology, theories are constructed by using, amongst other things, case studies, as in the case of Freud's psychoanalytical theory, which was based on observation of patients' behaviours. In the psychometric method the trait or factor models of aspects of personality (for example, Cattell's trait theory and various factor models of abilities) are the result of correlation research or the relationship between variables.
- *Applied research* is directed at establishing whether concepts and methods are valid and applicable in practice, such as when managerial training courses are offered according to, for instance, situational leadership theory, decision-making theory or contingency theory, when management tries to improve work performance by attempting to motivate employees according to equity theory, needs theory or motivational methods, or when researchers try to assess whether gender plays a role in male and female self-efficacy beliefs.
- *Exploratory research* involves a preliminary investigation into

unknown areas of knowledge.

- *Descriptive research* involves describing phenomena accurately.
- In *quantitative research*, inquiries are usually made by using objective and mechanical measures (for example, psychometric tests, experiments and other scales of measurement) providing numerical data which can be manipulated statistically, and mostly also interpreted according to statistical indices.
- In contrast, *qualitative research* is executed by analysing and classifying data into themes in a more clinical or subjective way, based on behaviour observation, and by analysis of written and spoken language. Broadly speaking, quantitative research can be associated with a positivist research paradigm, and qualitative research with interpretive and constructionist research. However, combinations may also be used with regard to data collection and the interpretation of findings.

#### 22.4.2.2 Identification of variables

In a research project it is crucial to isolate and define the relevant research *variables*, since they will influence the research design.

Researchers need to conceptualise or describe variables precisely in order to be able to measure them. Variables in psychological research refer to those human characteristics that vary and can be allocated numerical values in some way. Behaviour and processes (mentioned in research variables) are derived from the various theories, concepts and applications used in the psychological disciplines. Examples of variables are personality traits, such as intelligence, motivation, stress and self-efficacy, socio-economic factors such as education, income, job level and employment status, personal or biographical factors such as gender, age and matrimonial status, environmental factors such as pollution, noise, working hours and supervision, as well as factors such as attitudes, values and political and religious affiliations. These variables are either in the person (intrapersonal), between people (interpersonal), about the person (personal information, such as age) or in or from situations or the environment (interactional).

Variables are controlled and manipulated by the investigator in order to assess possible relationships. In this regard research is used to establish whether phenomena exist, are related, stay consistent or change (variability). This

enables researchers to explain, describe and predict behaviour in many areas of human conduct. Statisticians refer to this variability as *variance*, meaning the amount of observed change (or consistency) in behaviour within a person, between persons, across time and in various situations, or as a result of environmental influences.

An important classification method of variables in research, especially in experimental research, is to divide variables into dependent and independent variables. This is connected to the relationship of cause and effect between variables (how one variable may cause changes in another variable).

An *independent variable* (also referred to as a *stimulus or predictor variable*) refers to an antecedent state, event or phenomenon, or what may cause changes in other phenomena. In this sense the independent variable in work settings is mostly applied as a predictor variable (for example, psychological test scores), inasmuch as its relationship with job or occupational performance is established. The independent variable is measured and controlled by the researcher. Examples are the type of feedback or training to be given, motivational strategies, such as the amount of money to be awarded, number of working hours, differences in intelligence, and education level and other psychological and physical traits, all of which can influence or cause variance in employees' effectiveness, productivity and turnover. On graphs where the measurement distributions are depicted, the predictor score is usually placed on the horizontal or x-axis.

A *dependent variable* (also referred to as a *response and criterion variable*) refers to the outcome or consequence of the influence of the independent variable. Examples are improved performance as a result of an instruction or motivational method, poor performance as a result of fatigue, or better production and academic results as a result of a higher level of motivation, feedback, learning methods and self-efficacy beliefs. In statistical presentations of data on graphs the criterion variable is usually shown on the vertical or y-axis.

An example from the research examples box earlier in this chapter that contains an independent and dependent variable is the possible influence of learning methods (the independent variable) on differences in academic performance (the dependent variable).

In statistics, the *relationship* between predictors and criterion scores is measured according to *inferential statistical methods* such as correlation, regression and variance analysis. Criteria or standards for decision-making are important in the work context, for example, to find work-related personality

factors or work behaviours that can be predicted by various types of personality measurements. Mostly, work-related criterion measures are referred to as “soft” criteria (for example, employee traits and behaviours) or “hard” criteria (for example, specific work-performance indicators such as numbers of units produced, sales figures or number of days absent) (Furnham, 1995).

An *intervening variable* (or *moderator* or *confounding variable*) is any extraneous variable, usually uncontrolled or unexpected, that intervenes in or moderates the relationship between the stimulus and response variables. It is, for example, possible that work motivation is not only an effect of financial reward, but can be moderated by factors such as gender, age, work experience, culture, interest, work attitudes, health, management policies and the type of work.

Another classification of variables is based on the nature of the numerical values that variables assume. Broadly speaking, researchers can assume that some psychological and related variables take on definite values in whole (round) numbers, whilst others can assume any value, including fractions and decimals.

*Discrete variables* are those that can be expressed only in whole numbers. A discrete variable is the number of, for example, books, people, cases, men or women, age groups or occupational groups. It is meaningless to speak of 1,05 people, although this is sometimes done to indicate average numbers of people in census surveys.

A *continuous variable* can assume any value between certain points. For example, a person can be 17 years of age, be 1,23 metres tall, attain an IQ score of 110,50, or have an average score on a work performance task of 3,5 on a 7-point scale.

#### **22.4.2.3 Information search or reviewing the literature**

A study of relevant literature or *literature review* (theory and research) serves to develop the research problem, define and refine research concepts, and inform the researcher of existing knowledge and gaps in knowledge, research needs, and previous research findings on the chosen topic (besides revealing methodologies used in previous research and possible weaknesses and problems experienced).

In this regard, the importance of theory in a science must be realised. A *theory* is a set of assumptions or propositions, together with relevant concepts, used to explain and predict psychological and behavioural phenomena and processes, and possible relationships between such variables in a systematic way (Kerlinger, 1973; Hatano and Inagaki, 2000; Kowalski and Westen, 2011).

Theories provide concepts, generate research questions and hypotheses, support research findings, and can be used to explain and even predict behaviour. Research topics and methods are embedded in a comprehensive theoretical frame of reference. If, for example, one is researching the effects of conditioning on employees' job performance, one may be working within the behaviourist frame of reference, and may possibly use direct observation as an assessment method.

#### **22.4.2.4 Formulating hypotheses or research questions**

It is necessary to state *research hypotheses*, which are developed from the research objectives and the research problem or question. *Hypotheses* are expectations for the research and involve the application of deductive and inductive reasoning in order to formulate specific research questions, either from general or very specific information about the variables in question. Hypotheses also serve to subdivide the problem into various related questions.

A hypothesis is a provisional, assumed or tentative statement or estimate about the relationship between independent and dependent variables, for instance “motivational levels will not affect the job satisfaction /work performance of managers”. Hypotheses may be formulated from existing theory, previous research or a new and current research problem.

Hypotheses are general statements or expectations only, and must still be verified by the findings of a research project. In this respect a hypothesis is often stated as a *statistical hypothesis* in which a relationship is assumed and a *null or alternate hypothesis* in which a “non-relationship” is postulated, which is done to have a standard against which to test the initial hypothesis. For example, “there is a relationship between level of education and job performance” (H1) and “there is no relationship between educational level and job performance” (H0 or null hypothesis). The purpose of research results is essentially to prove whether stated hypotheses are correct or not.

#### **22.4.2.5 Research context and strategies**

The *research strategy* is the overall or broad approach or context of the research, incorporating the type and location of research being employed. It is important to consider the type of research, for example, whether the research will be executed in natural or in experimental settings, and the amount of control and even influence researchers want to exert over variables, conditions and research participants (Larsen and Buss, 2008; Foxcroft and Roodt, 2009).

*Experimental research*, such as laboratory research, is done in contrived or “unnatural” settings in which there can be very strict controls. The investigator is able to control and manipulate the conditions and measurements to be certain about the cause-and-effect relationship between the dependent and independent variables. A research-design decision has to be taken whether to use only the experimental group or more groups (for example, a control group for comparison purposes). In general, experimental research findings are reliable because of the precise control of the processes, however owing to small numbers and sometimes simulated conditions, it is difficult to repeat experiments and apply experimental findings in other situations.

In comparison, research in the field or in natural settings may have more participants and be more generally applicable, but, because there is less control, the findings are often less valid. Field research, however, is preferred in the real-life context, because it is undertaken in natural situations such as a factory, home or school.

*Action research designs* are related to field research and involve researchers and participants in obtaining information in, for example, the workplace. In the process of the research and from the feedback of results, problems are solved as they unfold. In South Africa, as in many developing and changing countries, many transformation problems are solved and research activities can be adapted in the process of research.

In *survey designs*, people are asked on questionnaires and in interviews how they feel about or perceive things, their attitudes on issues, what complaints they have, and what they are satisfied with, in order to assess, for example, employees’ attitudes about job satisfaction. The aim of survey research is to gather quantitative information about human behaviour at a specific time and place (cross-sectional surveys) or over longer periods (longitudinal surveys). In organisational diagnostic surveys, employees’ attitudes to various organisational issues are investigated by asking questions regarding feelings about remuneration and fringe benefits, supervision, physical working conditions, organisational communication, opportunities for promotion, prejudices in the workplace, and work satisfaction. Survey researchers try to use as many measurements (samples) as possible from the available participants or other sources of information (population). A problem in survey research is the intentions or response styles of respondents when they answer questionnaires (for example, they may agree on all items or provide incomplete answers).

The researcher also has to decide whether the information required needs to

be qualitative or quantitative (Christensen, 2001). In *quantitative research*, numerical data is collected through methods such as ratings, test scores and number of events. Statistical methods are used to analyse and interpret data, for example, interpreting a correlation coefficient to explain the relationship between work motivation and work performance, or doing meta-analysis (a technique used to analyse the results of many previous research studies). In *qualitative research*, non-numerical data is usually collected, for example, in spoken language (such as interviews), written language (such as stories and poetry), visual expressions (such as in clothing or artwork), experiences and perceptions by people (phenomenology), analysis of cultural aspects of people (ethnography), and individual case studies and autobiographies. The obtained data is then analysed and interpreted according to underlying themes and meanings, as interpreted or constructed by the research subjects and the researchers.

For research findings to be accepted as valid for people in all situations (for findings to have generalisability), the researcher has to do *sampling* to obtain a representative sample of cases or measurements from what is available (the population). In some psychological research, such as in therapy and psychological disorders, it is often possible to use case study designs involving only one participant, or a few participants.

#### **22.4.2.6 Techniques used to collect research data**

All techniques utilised in *psychological assessment* (some of which are discussed in Chapter 21) are utilised to obtain data for psychological research purposes. However, other and specific techniques are often developed to suit the needs of specific research designs (Larsen and Buss, 2008; Weiten, 2011). Research in different psychological fields and study topics will also determine the type of research design, research variables and techniques for obtaining data, as well as how data will be assessed and analysed. Techniques used in data collection for research purposes include the following:

- *Introspection*, with its origins in structuralism, entails that research subjects verbally tell or give protocols of their experiences. This technique is still used, but not much, owing to intrinsic weaknesses. For example, most people do not have accurate recall of the content and processes in their experiences, and differences amongst researchers on how to interpret introspective data often result in very subjective conclusions. For postmodern psychologists, especially the social constructionists, narrative analysis has revived some

interest in introspection, although the same pitfalls exist, and further pitfalls are associated with the strong emotional and political agendas that creep into some research.

- In *observation of behaviour*, initiated by the behaviourist approaches (for example, in experiments and in natural situations), research events are controlled as far as possible. Researchers may be passive or active participants. Actions, emotions and cognitive behaviours can be assessed directly or indirectly in various ways (for example, through rating scales, questionnaires, physiological measurements and other technology, such as video recordings and computerised assessments). In the examples mentioned earlier in the chapter the effects of social support, feedback and fatigue could be assessed through experimental and observational methods.
- *Interviews* and discourse in many formats, structured and unstructured, with individuals or focus groups, are used frequently, often with other assessment techniques. Interviews should be planned in detail beforehand, and whilst researchers may play a very active role and have a strong presence, their own values and attitudes should not influence answers or actions, except if this is part of the research design. In most of the examples given earlier in the chapter interview techniques could be used.



**Figure 22.2** Natural observation of events.

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The use of *archival sources* involves the use of existing information and prior or historical knowledge to apply to a research design. Examples of such sources are personnel and organisational records on productivity, finances, absences, promotions and accidents. In constructionist and interpretive research (for example, on aspects of a country, people or social issues) information can be obtained from articles in newspapers and books, reports, documents, letters, speech and, even, visual expressions in communication and art. The idea in interpretative research is to analyse and categorise themes as they occur and recur in human discourse and interaction. Simonton (1986), for example, analysed personal, biographical and performance information from archival sources to assess and compare the management styles of presidents of the USA. Since the onset of a new political dispensation in South Africa, the Truth and Reconciliation Commission in South Africa have used historical data and peoples' experiences in a quest to resolve people's conflicts. In contemporary training and therapeutic techniques, people's written and verbalised discourses are used to analyse themes or stories in their communication.

*Physiological and neurological measurement*, which originated from the biological sciences and animal research, is still used to establish the relationship between biological and psychological behaviours and vice versa. It is often utilised in research on memory and learning, and in psychological disorders involving cognitive and biological disturbances.

In *work psychology*, with regard to fatigue and stress, it is important to design the most appropriate fit between the physical workplace and employees. Measurements of bodily reactions and reflexes, muscular tension, perspiration, brain activities, blood pressure, heart rates, skin temperatures and nervous system functions are taken to determine levels of work adjustment. The lie detector apparatus used in criminal and insurance cases tests biological reactions to assess people's honesty.

#### **22.4.2.7 Levels of measurement scales**

It is important to know what type of information the measurement of certain variables by certain instruments will provide, and what types of mathematical and statistical manipulations can be executed when a certain type of measurement scale is used. One of the tasks of researchers is to assign numerical values to the responses from subjects.

Four levels of *measurement scales*, each with unique features, can be distinguished, namely nominal measurement, ordinal measurement, interval measurement and ratio scales.

*Nominal measurement*, the simplest type of scale, refers to the classification of people or things in the absence of an order and quantitative value, so that similarities or differences with respect to variables can be indicated only by categorising. This is the case when the players in a rugby or soccer team are numbered, employees are classified as either male or female, people are classified into certain types of job, and incidences of diseases are recorded. If numerical values are allocated, say one for male, two for female, or one to fifteen for the various positions in a team, the numbers merely have a labelling or naming value. Such figures are purely qualitative data with no numerical value and are unsuitable for mathematical calculations, except for counting.

*Ordinal measurement* scales contain all the features of the nominal scale, but indicate rank or order, such as highest to lowest. For example, employees may be ranked on job performance from highest to lowest, or job preferences may be ranked from most to least preferred. Note, however, that although increasing precedence is indicated, such as more or greater than, the ranking is relative and the real quantitative differences or intervals, for example, between the first-placed and last-placed employees on their performance rankings, are not known. Mathematical manipulations do not make much sense in ordinal scales, except if special statistical tools are used.

*Interval measurement* comprises all the features of nominal and ordinal scales, and includes numerical values of definite intervals. Zero (0) values, however, cannot be indicated. Because the exact zero point is not known, the exact distance of any score from the zero point cannot be determined, and for this reason one interval score cannot be divided into another. Most measurements of psychological variables in tests and questionnaires of IQ, personality traits, attitudes, aptitudes and values are done according to the interval-scale method. On a few IQ scores, such as 70, 80, 90, 100, 110 and 120, it is known that the higher scores indicate more of the trait, and the intervals or differences between 70 to 80 and between 110 to 120 are the same. The same holds for temperature as measured on Fahrenheit and Celsius scales. It is meaningful to say that an increase of  $10^{\circ}$  (from 20 to 30) is equal to a decrease of  $10^{\circ}$  (from 40 to 30) and that this increase is the same as an increase from 50 to 60. Since absolute zero points do not apply to interval scales, it cannot be said that an IQ of 120 is twice as much as an IQ of 60, that a temperature of  $60^{\circ}$  is

twice as warm as 30°, or that 0 °C/32 °F indicate an absence of temperature. It is impossible in the assessment of human behaviour to say that a person has zero of a trait, even if a scale might indicate it as such. Interval scales are suited to certain statistical calculations, such as adding and subtracting, which enable researchers to determine averages (mean scores), standard deviations and correlations, and to transform raw scores into various types of other derived scores that can be interpreted more meaningfully.

Ratio scales represent the highest level of measurement and integrate all the characteristics of the previous three levels of measurement, but can indicate absolute values and definite zero points, and permit the application of all mathematical functions and more advanced statistical techniques. Few, if any, psychological variables are suited to being measured by ratio-scaling techniques. Physical measurements such as time, distance and weight are suited to these scales. In ergonomics, as well as in health psychology, physical and physiological measurements are sometimes used to assess the relationship between physical aspects and psychological behaviours in the workplace.

#### **22.4.2.8 Analysing data: Basic statistics and other techniques**

Techniques for analysing data should be appropriate for the research design; they should enable the researcher to answer the research questions, and they should be suitable for the research paradigms. Statistical techniques, which are generally used by adherents of the positivist research tradition, serve to systematise information quantitatively in order to summarise, interpret and draw meaningful conclusions from vast amounts of data on human behaviour. Qualitative-analysis techniques consist of analysis and classification of recurring themes in data such as written and spoken language, which are generally used in the interpretive and constructionist research traditions. Of importance in systematic, interpretative and constructionist research are the consideration and interpretation of the context of events and human behaviour, that is what and which factors are determining, influencing and directing the outcomes of research (Dey, 1993; Bannister, Burman, Parker, Taylor and Tindall, 1994; Lather, 1995; Terre 'Blanche and Durrheim, 1999). In this regard, various legislative, ethical and other issues that have a role in psychological practice must be considered.

Generally speaking, numerical data can be depicted and interpreted either by descriptive statistics (to organise and summarise data) and non-descriptive or inferential statistics (which, after research data has been organised more

meaningfully, enable researchers to draw conclusions or inferences from specific sets of research data).

Though the following statistics are in actual fact in most cases very simple, very few researchers still calculate them by hand because sophisticated computers and computer software programs are available. These technological aids assist in more or less all the research processes, even the capturing of data and its interpretation (by computer-generated reports). *Computer-generated reports* are handy for researchers when multiple sources of information must be integrated. What is essential, though, is that psychologists understand the meaning of research statistics and which statistics to use in which situations. Obviously the researcher will always be responsible and accountable for delivering accurate and valid research results that will reflect scientific truths and be able to be used fairly. In more advanced studies, students will be involved in executing research projects and using statistical techniques, but this book only explains the various basic statistical concepts and their meanings.

### **Descriptive statistics**

*Descriptive statistics* are used to organise and summarise raw or initial data in order to interpret it meaningfully. These statistics comprise frequency distributions of scores, the normal distribution curve, measures of central tendency (the mean, median and mode), and measures of variability, dispersion, and even, in some instances, correlation. In most cases a summary of data will start with a raw data matrix (data as gathered), which is really only a presentation of each subject's scores on assessment techniques in rows and columns. Tables, graphs and figures are popular ways to present numerical summarised data.

### **Frequency distributions**

*Frequencies* (f) refer to the number of times (incidence) a measurement occurs in a group or with an individual. When a number of frequencies are depicted or arranged, the presentation is known as a frequency distribution. Except to tell how scores are distributed, statistically no further meaningful deductions can be made from frequency distributions.

Frequency distributions can, however, be presented more clearly by means of graphs, for example, by a histogram or bar graph and by the frequency polygon (see Figure 22.3). These graphs (and the bar diagram) all have a vertical left-hand line (y-axis) or ordinate, and a horizontal base line (x-axis) or abscissa axis, that meet each other at a 90-degree angle so that it is possible to see how many

scores (on the y-axis) fall in each class interval (on the x-axis). The variables or class intervals are entered on the x-axis and the frequencies on the y-axis. In addition, it is possible to see how much such graphs decline approximately symmetrically to the left and right from the middle. If exactly the same number of cases occurred in all the intervals on both sides of the centre, it would then have formed an absolutely normal, symmetrical or bell-shaped distribution.

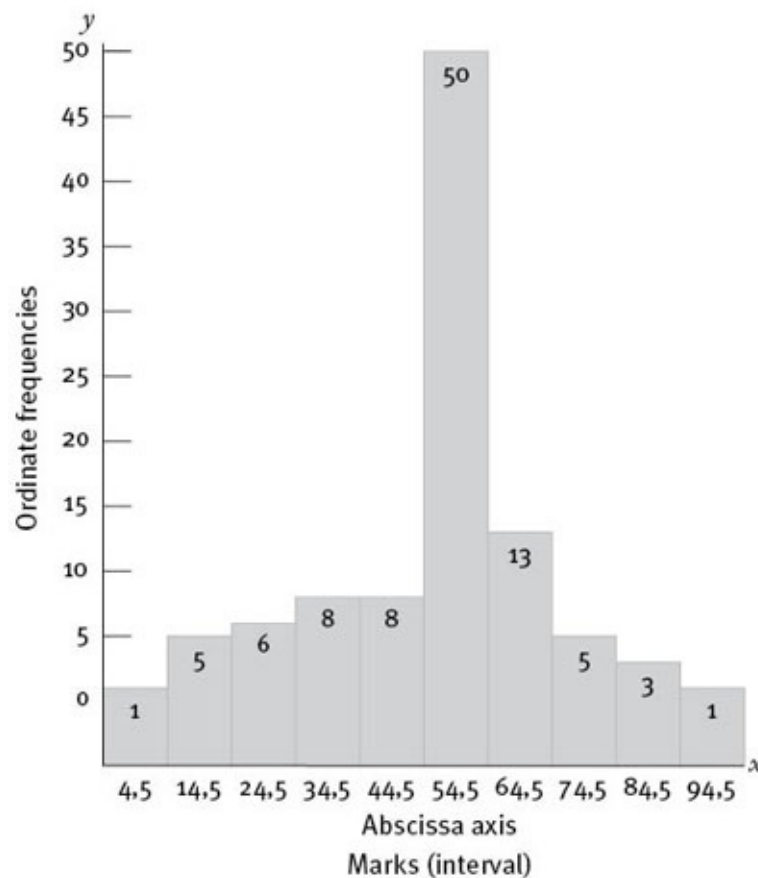


Figure 22.3 Histogram.

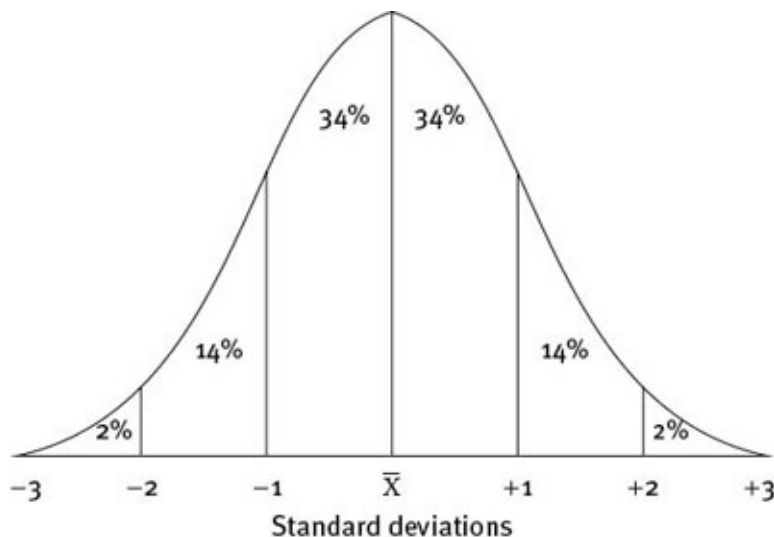
### The normal distribution curve

It has been pointed out that a distribution can be absolutely symmetrical or bell-shaped, in other words it can be a *normal distribution* if an equal number of cases occur to the left and the right of the centre. A normal distribution has the following unique characteristics:

- It is symmetrical and bell-shaped, with a single peak in the middle and an even decline to each side.

- The distributions of the areas in the curve are of constant proportion; the distributions are within certain distances from the mean or  $\bar{X}$ . In the normal distribution formula, mean and standard deviations are used to describe the nature of score or case distributions.

With most human characteristics, particularly when a large number of measurements are taken, one can expect to find a normal distribution (see Figure 22.4).

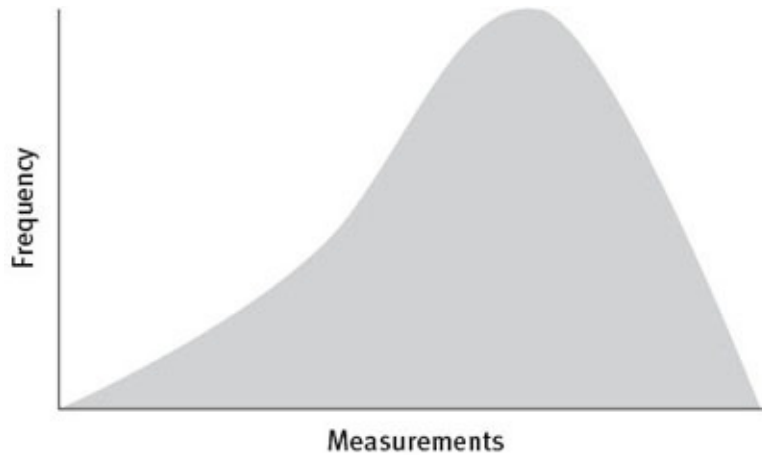


**Figure 22.4** The normal curve: Area ratios, mean and standard deviations.

The ratios of the normal distribution curve (as in Figure 22.4) apply to any normal distribution. The normal distribution and its special features (constant proportions or ratios) are very important to psychological measurement (for example, for the calculation of norms). Note that not all distributions are normal, because in research, sets of data are often smoothed to adapt irregular distributions to a normal distribution curve. Two types of deviations from normal distributions often occur, namely a skew distribution and kurtosis. *Skewness* refers to the degree of symmetry or asymmetry of the distributions. Two forms of skewness exist:

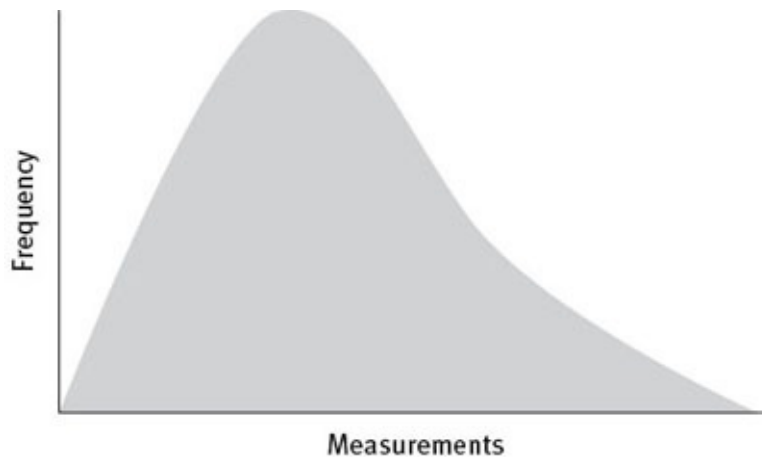
- *Skewness to the left* (the distribution is negatively skew) occurs, for instance, when a test was too easy and most of the marks are above the average (see Figure 22.5).
- *Skewness to the right* (the distribution is positively skew) occurs when the test was too difficult and the marks are therefore predominantly below the average

(see Figure 22.6).



**Figure 22.5** Skewness to the left (negatively skew).

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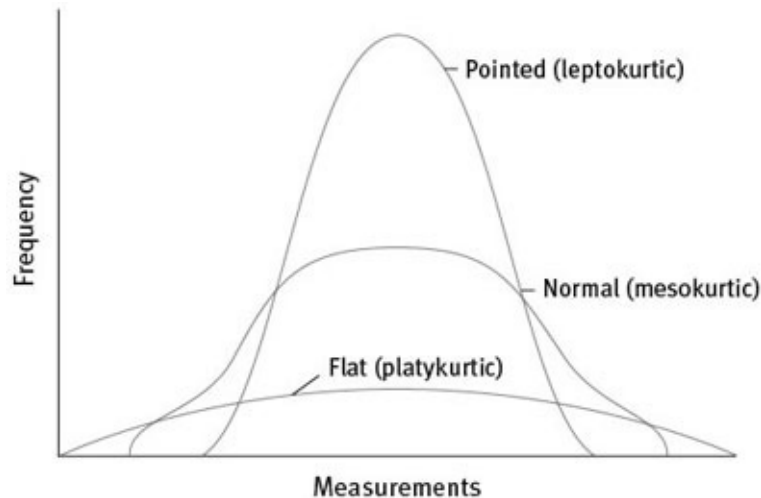


**Figure 22.6** Skewness to the right (positively skew).

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Such skewness in distributions in assessment scores can be rectified by revising the questions and setting them so as to suit the subjects' capacities.

*Kurtosis* refers to the flatness or pointedness of a distribution curve, even if it is symmetrical. *Pointedness* is found where almost all the scores are found in the middle of a distribution, for example, when all learners will obtain around 50% for a test. *Flatness*, on the other hand, is the result of scores distributed over the whole spectrum (see Figure 22.7).



**Figure 22.7** Kurtosis.

### Measurements of central tendency

When one seeks to briefly describe a certain distribution or its main characteristics without giving the whole distribution, one can use quantitative statistics such as central values. A *central value* is a *single value that best represents* or summarises the total distribution. Such values or numbers enable one to compare various distributions of data.

The *mean*  $\bar{X}$  is the arithmetic mean or average of a group of scores or measurements. Each of the scores in a distribution or set of measurements contributes to the mean. Therefore extreme scores, either very high or very low, can greatly influence the mean and actually give a somewhat inaccurate picture of all the other scores.

The *median* (mdn) is a midpoint on a collection of scores above or below which half of the measurements are located. In other words, it is the middle score of a distribution. Another definition for the median is the *50th percentile*. In smaller groups of measurements, in which clashes between scores do not occur, the median calculations are simple. For instance, in the series 2, 3, 4, 6, 7, 9, 10, 11, 14, the median is merely the score that is in the middle position when the scores are classified from low to high. Therefore 7 is the median for the above series, because 7 falls exactly in the middle (5th score) of the series (4 figures are below and 4 above 7).

The *mode* is the point or value in a distribution that occurs most often.

In general, the mean is the most reliable central value for comparison because

calculations of it in random samples will vary less than those of the median and the mode. The arithmetic mean also lends itself to more advanced arithmetical and algebraic processing, and is often an important factor in psychological statistics, particularly because of the fixed proportions in the normal distribution. The median, however, may have more value in skew distributions and when there are greatly deviant or extreme values in a distribution, whilst the mode has limited value, except in cases of nominal data such as the size of families. In other types of measuring scales (ordinal, interval and ratio) the median and the mean are the appropriate central values.

### **Measures of dispersion (variability) or spread**

Measures for *variability* indicate the degree to which scores vary or are spread around the central tendency, or to what extent scores in a distribution differ from one another. If all scores are the same, there is no variability or spread.

Central values indicate the most representative value or point in a distribution, yet they do not describe a distribution adequately. Thus two sets of scores could, for instance, have the same means and both be symmetrical, yet in a histogram or polygon, they would look totally different. Although there are various indexes for variability or range of distribution, range, variance ( $S^2$ ) and standard deviations ( $S$ ) are used most frequently.

*Range* is estimated by simply calculating the difference between the highest and lowest values in a distribution. Range is a rather unreliable indication of distribution dispersion since extreme scores can sometimes be located far from the other scores in a distribution.

A better indication of dispersion is the variance ( $S^2$ ) of a distribution where all the scores are included in the calculation. *Variance* is calculated by obtaining all the squared deviations from the arithmetic mean. When you study these calculations in more depth you will notice that  $\bar{X}$  stands for arithmetic mean,  $\bar{X}$  = scores,  $x$  = deviations and  $x^2$  stands for squared deviations.

Standard deviation ( $S$  or  $SD$ ) is a calculation that logically follows the calculation of variance. *Standard deviation* is defined as the positive square root of the variance of a distribution or collection of scores.  $S$  is preferred to  $S^2$  because the standard deviation is expressed in the same unit of measurement as the original score in a distribution, unlike variance, which is expressed in squared values. Just to illustrate, in Table 22.1 and the calculations that follow, it is indicated that the larger distribution range of (b) is indicated by its larger  $S$  value (14,14). Standard deviation ( $S$ ) is useful because it attributes more significance to scores in a distribution. It is known that the arithmetic means in

examples (a) and (b) are 40 and 25 respectively. It is also known how many standard deviations make each individual score fall above or below the mean. Hence a score of 41 in example (a) lies one S above the mean and a score of 39 one S below the mean, and so forth.

**Table 22.1**      Calculation of variance

(a)			(b)		
X	$x = (X - \bar{X})$	$x^2$	X	$x = (X - \bar{X})$	$x^2$
40	0	0	5	-20	400
41	1	1	40	15	225
38	2	4	30	5	25
39	-1	1	50	25	625
38	-2	4	15	-10	100
42	2	4	10	-15	225
41	1	1	25	0	0
39	-1	1	15	-10	100
40	0	0	25	0	0
42	2	4	35	10	100

**Table 22.1**      Calculation of variance

(a)	(b)

$$\begin{aligned}
\bar{X} &= 40 \\
\sum x^2 &= 20 \\
N &= 10 \\
S^2 &= \frac{\sum x^2}{N-1} \\
&= \frac{20}{10-1} \\
&= \frac{20}{9} \\
&= 2,22 \rightarrow
\end{aligned}$$

$$\begin{aligned}
\bar{X} &= 25 \\
\sum x^2 &= 1\,800 \\
N &= 10 \\
S^2 &= \frac{\sum x^2}{N-1} \\
&= \frac{1\,800}{10-1} \\
&= \frac{1\,800}{9} \\
&= 200 \rightarrow
\end{aligned}$$

From the above variances (2,22 and 200) it is clear that the distribution range of (a) is far smaller than that of (b), something that was not clear when the range was calculated.

Both variance ( $S^2$ ) and standard deviation (S), like the arithmetic mean, are fundamental concepts for calculations in virtually all statistical processing.

### Measurement of relationship (correlation)

*Correlation* indicates the numerical degree of relationship, association or predictability between two or more variables. Thus one speaks of the relationship between measures of work motivation and measures of work performance, the correlation between measures of IQ and measures of school performance, or the prediction of work performance on the basis of scores in an IQ test. The relationship between variables are important in the workplace, especially if selection and promotion decisions are based on measurements of, for example, aptitudes, motivation and personality factors that have been found to predict future work behaviour.

In statistical terminology, correlation between two variables is referred to as the extent to which two variables *co-vary linearly* (in other words, how variance or change in one variable correlates with variance in another). For example, high motivation scores will also be marked by higher work-performance measures. Also, as a rule, up to a certain age during development, there is a correlation

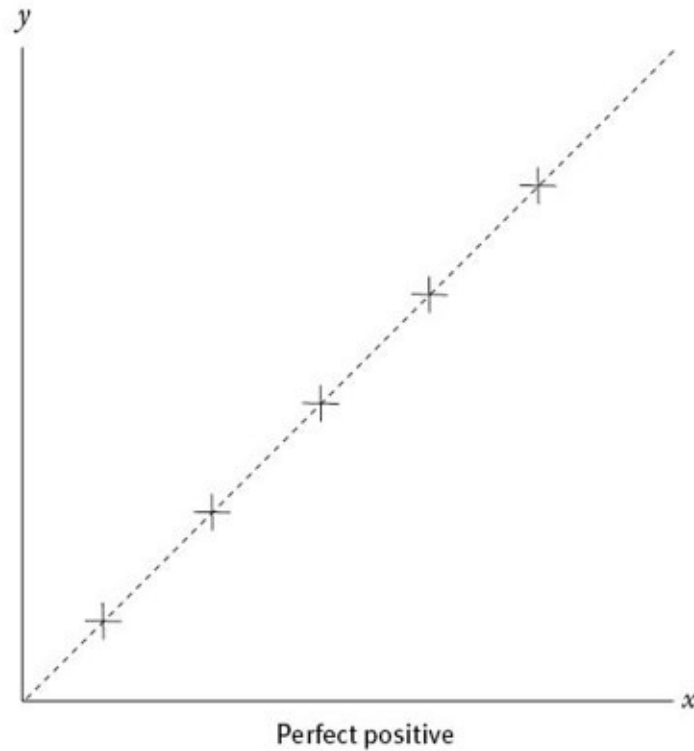
between age and height, which means that as a person grows older one can expect him/her to grow taller. Similar research exists with regard to other physical attributes, as well as in cognitive, social and psychological development. Hence by knowing age one can predict what types of physical, cognitive, social and psychological behaviours to more or less expect of people at certain ages and development stages. In psychological research many findings indicate significant positive or negative relatedness between psychological attributes and behaviour, for example, between personality traits and work-performance criteria such as general work successes, training success, sales figures, absenteeism and work experience.

The inference or deductions made by using relationships are based on the laws of probability or *significance*, which is another example of logic in scientific research. One cannot generalise findings if they are not significant. The higher the statistical significance, the more confident one can be that the research hypothesis will be correct (for example, that a significant relationship does exist between two variables and it is not a chance event).

The magnitude of a relationship is expressed as a correlation coefficient ( $r$ ). This is a numerical value from  $-1,00$  to  $+1,00$  that indicates to what extent two variables correlate either negatively or positively, and which gives the direction of the relationship.

A *positive or direct correlation* means that the scores or measurements on two variables are either both high or both low.

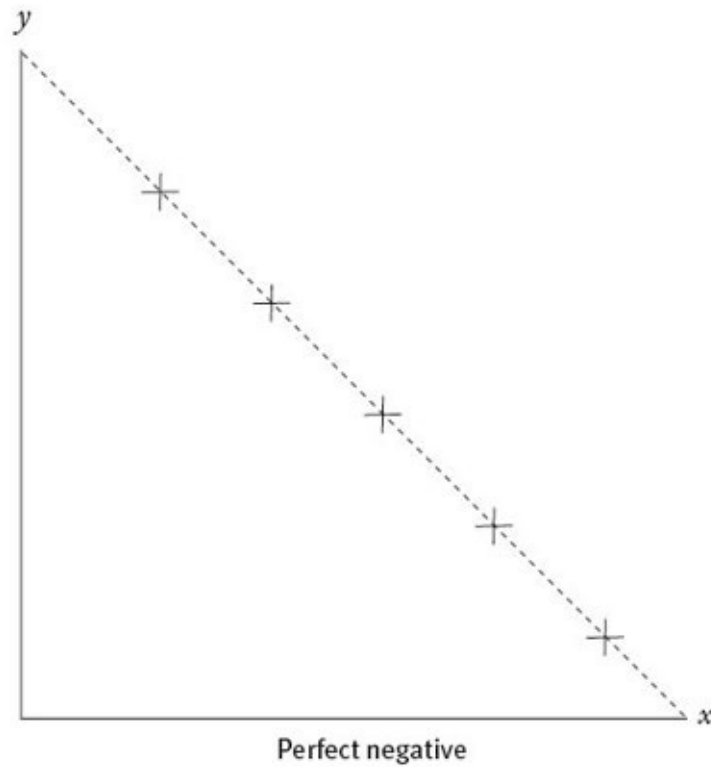
Figures 22.8 and 22.9 are visual illustrations of a perfect positive ( $+1,00$ ) and a perfect negative correlation ( $-1,00$ ).



**Figure 22.8** Perfect positive correlation.

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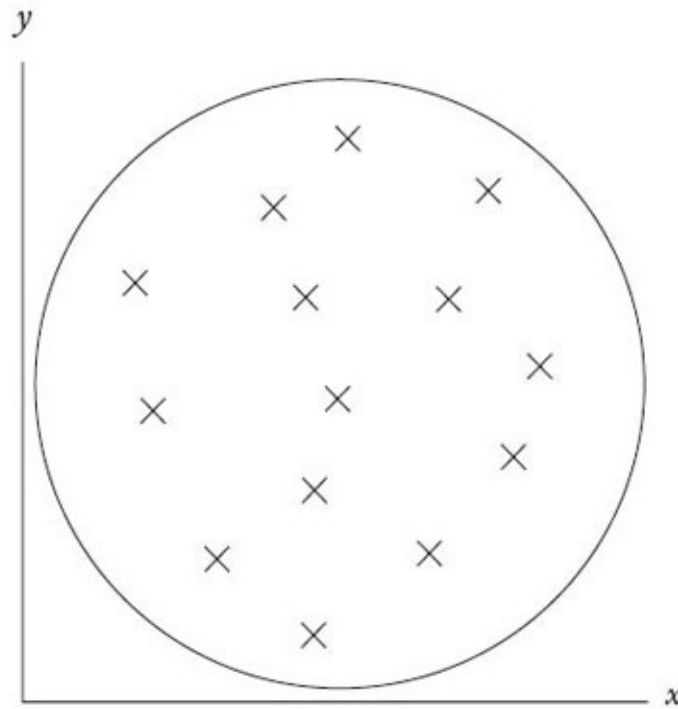
In Figure 22.8 all the scores correlate exactly – the larger the score on the  $x$ -axis, the larger the score on the  $y$ -axis. In Figure 22.9 the perfect negative correlation means that the larger the  $x$  score, the smaller the  $y$  score. In both cases, therefore, the relationships will be perfect and fall precisely on a straight line. Perfect scores of this kind are seldom or never encountered in practice. However, in the field of statistics certain requirements are laid down for a relationship or correlation to be significant. Validity correlations higher than 0,35, and reliability correlations higher than 0,70, are usually accepted as significant. This is particularly important when one wishes to determine whether or not differences between, for example, groups, are significant, or whether the instruments one uses yield valid and reliable measures.



**Figure 22.9** Perfect negative correlation.

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When two variables do not manifest any relation at all, for example, height and achievement in an IQ test, the distribution range will be large and there will be no pattern because the scores of the two variables do not correlate at all (see Figure 22.10).



**Figure 22.10** Variables that do not correlate at all.

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It should be clear that there can be infinite variation in correlation, between perfect negative correlation ( $-1,00$ ) and perfect positive correlation ( $+1,00$ ), depending on the relationship between the variables. The type of correlation can always be expressed visually in the line of best fit. As indicated earlier, it is always a straight line in the case of  $+1,00$  and  $-1,00$ . The further the correlation deviates from these perfect relations, the further the distribution will lie from the straight line and the lower the statistical correlations will be.

Although a correlation coefficient indicates the relationship between variables, it does not provide an explanation for definite cause and effect. Hence correlation coefficients on their own cannot be used to indicate definite causes of behaviour, only to indicate a relationship and possible predictions.

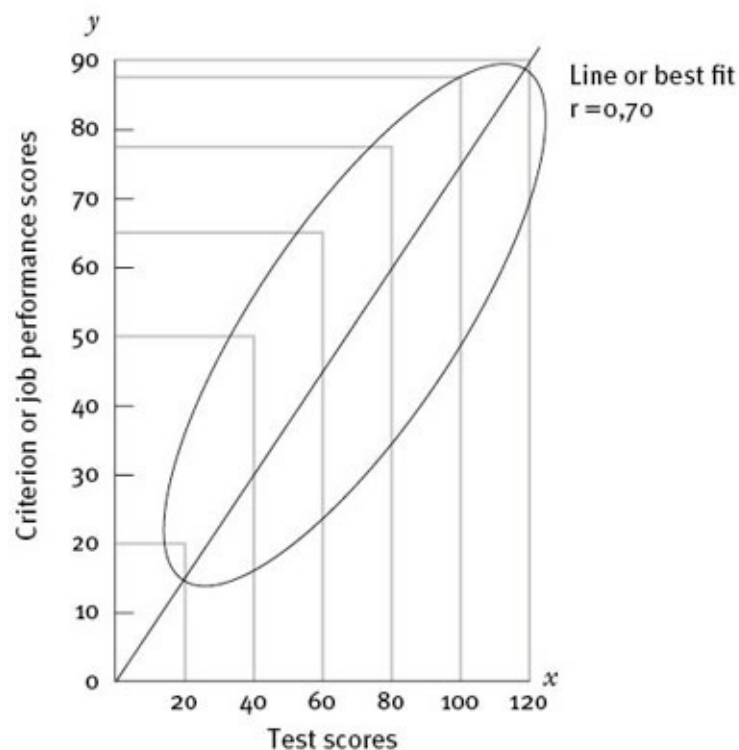
### **Non-descriptive or inferential statistics**

Non-descriptive or *inferential statistics*, such as correlation, regression and factor analysis, enable a researcher to make certain inferences, conclusions or predictions with reference to probability laws or degrees of significance, that is the “chance” or probability that certain behaviours might occur if certain other conditions or behaviours exist. If one uses correlations to indicate a relationship

between variables amongst people, one uses them as descriptive statistics. When one generalises a correlation between specific variables and applies that to other variables, groups or situations, or when one predicts the scores on one test or task as the basis of one's knowledge of the scores of another test, one uses a relationship or correlation, and specifically regression analysis, as an inferential statistical method to draw a conclusion.

*Regression analysis* involves statistical methods in which correlation coefficients are used to predict behaviour. Regression analysis involves determining the *line of best fit* (the prediction or regression line) based on the type of correlation between the two variables. On the basis of regression lines one can calculate regression equations and make predictions about variables within certain margins of certainty or uncertainty.

In Figure 22.11 the line of best fit is represented by a correlation of 0,70, which means that the correlation is positive but not perfect – hence errors of measurement may occur. A person with a test score of 60, for example, will obtain a job performance score of about 60, yet people with test scores of 40 or 50 may obtain job performance scores of about 45 and about 55. For this reason one or other measurement error index is calculated in most psychological tests, which can be taken into consideration in the test scores obtained.



Decision-making theories in I-O Psychology (on selection, for example) are based primarily on regression equations. Following regression analysis, *expectancy tables* are often compiled, from which scores on one variable can be used to predict expected scores on another.

In more advanced research, calculation methods such as multivariate statistics (such as factor analysis) may be used. *Factor analysis* is a statistical technique whereby, on the basis of correlations between variables, one can determine what variables have common properties, or the underlying structure or basic factors of a set of variables. The primary function of factor analysis is to reduce the number of variables in a vast number of measurements by identifying the overlap between the various measures. Thus Cattell (researching personality) and Thurstone (researching intelligence) used factor analysis of various test scores and other data to determine that personality basically comprises 16 primary factors, and intelligence is composed of seven group factors. In this way many classifications of psychological behaviours are done, such as traits of personality in general, work-related personality traits, motivation, interests, aptitudes, attitudes, intelligence, values, emotions, consumer behaviours, managerial and leadership traits, entrepreneurship and so on (Furnham, 1992, 1997; Ashton, 2007).

Factor analysis is usually depicted in a factor matrix, showing the clusters of factors that belong together. Another technique, *meta-analysis*, is used to analyse the data and results of many research projects, allowing researchers to do deeper analysis and make finer inferences because they consider more measurements. Using this method, researchers have established, for example, that personality is a better predictor of occupational behaviours than was indicated in earlier studies (Barrick and Mount, 1991; Tett, Jackson and Rothstein, 1991), also due to research errors.

### **22.4.2.9 Conclusions and generalisation in research**

Making correct interpretations and drawing accurate conclusions from research data and assessment results really depends on the rule of “garbage in – garbage out,” as nothing can make up for poor research design, errors in assessments, or the incompetence of researchers. As already noted, personal preferences and agendas of researchers, research paradigms and measurement errors may also

influence interpretations and conclusions. It is important to ask whether conclusions drawn from particular research are backed up by the research itself, and whether the conclusions are true in general (Tredoux, in Terre 'Blanche and Durrheim, 1999).

*Interpretation* is based on logical thinking, probabilities and the integration of findings, as determined by the stated research or assessment questions, the meaning of the research variables and the statistical or other methods of obtaining and processing data. Interpretation is also the end result of a decision-making and problem-solving process, as research or assessment is executed systematically and with a set purpose. The interpretation of results can be done in many ways, such as by describing, explaining, evaluating and predicting behaviour. The type of interpretation is determined by the research design and research questions, the type of information available, the target group that will use or read it, and even the researcher's skills in interpretation.

In empirical research, interpretations in research are based on probabilities (that is, degrees of certainty or significance). *Statistical significance* indicates that the probability of chance in findings is low or high. Based on verified hypotheses, certain laws, regarded as general truths, can now be formulated. The term "law" has many connotations and may refer to natural laws, behavioural laws, or rules. In psychology many such laws evolved from research, such as the Law of Effect and the Gestalt laws, which were formulated on the basis of experimental research. A set of laws becomes a theory once it is integrated into a system incorporating a specific topic that describes the relationships between different aspects of such a topic. In this way many theories evolved, for example, on personality, motivation, perception, intelligence, leadership and learning. In most cases accepted theories and concepts evolved progressively through logical reasoning, hypothesising, verification, data collection and processing, interpretation and the formulation of laws, which give such knowledge considerable predictive value. In this respect, although many so-called "theories" and "concepts" or aspects of them may provide handy tools to understand human behaviour, they remain unverified hypotheses or speculation until verified by scientific research.

Conclusions in research involve the generalisation of findings (Larsen and Buss, 2008). *Generalisation*, also referred to as *external validity*, means that statistically significant findings or interpretative themes may be generalised or applied in a broader context to other groups, individuals, situations and findings. Findings can only be generalised if the original measurements, data or research

subjects are a representative sample of the possible measurements (universum or population) that can be made in such situations. *Sampling* (how research subjects are selected for a research project) is essential for the generalisation of research findings.

Because it is often impractical to include the *universum or population*, researchers use various sampling strategies to obtain a representative sample. The sample is depicted in statistical analyses as *N*, which represents the number of cases or measurements. All possible values for the measurements are called *parameters*. However, because parameters are usually unobtainable, an estimate has to be given by statistically manipulating the data from samples for significance. If, for instance, 400 South African businesses need to be selected in order to do a survey on affirmative action and equity practices, random sampling may be used to give every business an equal chance to be included in the sample.

Generalisation also applies when many psychological tests are used on children or adults, or on a broad spectrum of employees as predictors of job and training success, although the tests were constructed and standardised only on samples of these groups.

The results of research and assessment may be divulged or reported on through verbal communication, papers read at conferences, advising a client in a counselling session, and so on. Findings can be summarised and described in various types of reports, in articles or in books. The various forms of reporting or communicating research and assessment results and processes are specialised topics, and demand adherence to principles of scientific writing (Tallent, 1989; Sternberg, 1994; Weiten, 2011).

### **ETHICAL READER: Generalisation**

Generalisation is necessary to achieve the scientific requirements of empiricism, verification and testability, in order to build a science of psychology on sound theories and practices. Valid conclusions and representative findings are essential. Too many instances exist where group averages, for example, do not make provision for individuals, or where certain groups are discriminated against when a theory, concept or test is applied to them because they were excluded from the original research or standardisation of an assessment technique. Such unscientific thinking often forms the basis of prejudices, bias and unfair practices, which cause suffering

for those involved and lead to bitter disputes to rectify injustices.

## **22.5 RESEARCH AND ASSESSMENT EFFICIENCY: SOURCES OF ERROR**

Evaluating research and research results is of the utmost importance. When evaluating research and assessment, the most important criterion is that phenomena are true or real, or that the relationship between variables, and therefore between attributes of people, is not flawed (Weiten, 2008, 2011). Errors in measurement cause findings to be random in nature (that is, it will be difficult to indicate the specific applicability and meaning of findings). The more errors there are, the more unlikely it becomes that the researcher will be able to say that findings are in fact accurate, or that the relationship between variables is exactly what was expected. Errors also make it difficult to determine statistical significance. Measurement errors may create the false belief that research findings are the truth, when in fact such results may actually give a false impression of the truth.

Measurement errors are the difference between obtained results and real results. Errors in measurement do occur as a result of the research process, the nature of psychological concepts, weaknesses in the psychological measurement techniques, rating or observation errors, and subjective errors by researchers. Measurement errors can be constant errors if they always influence measurements (for example, some scales for measuring a trait may always measure higher or lower than other methods).

Some errors, however, may be random, in that they only occur occasionally owing to particular circumstances or human errors. Some errors can be reduced and even in some way corrected when statistics are compiled. However, many errors, especially those caused by subjective influences such as prejudice and bias, cannot be corrected by statistical manipulation.

### **22.5.1 Reliability and validity**

Reliability and validity demonstrate the effectiveness of measurements and the magnitude of constant or random errors in measurement (Kerlinger, 1973; Larsen and Buss, 2008; Foxcroft and Roodt, 2009). Data capturing and processing procedures in research, such as psychological tests and statistical calculations, must provide consistent measurements, as well as be valid or be the

right procedures for the research design – will measure the research variables or concepts. In the design, research methods must be applied as similarly as possible to all research participants and other procedures in the research.

### **22.5.2 Errors in research design**

If a research project is not planned and executed according to a systematic and logical process and in terms of the objectives of the project, the scientific and research objectives cannot be achieved, and results may be unreliable and invalid. If a research sample is biased, unrepresentative or too small, with too few measurements, or drafted incorrectly, generalisations made from the findings could be invalid. Experimental research findings, for example, are not necessarily transferable or generalisable to predict human behaviour in occupational settings. By the same token, correlation research cannot be used to explain causes of behaviour. Also, research preferences, such as the type of research paradigm chosen, may also influence the correctness of findings and conclusions, especially if such paradigms are underpinned by the researchers' personal biases.

### **22.5.3 Administration and scoring errors**

Examples of the poor administration of measuring devices include:

- using non-standardised procedures and techniques (that is different procedures in different situations and with different research participants)
- vague or incorrect instructions
- poor research conditions (for example, noise, poor lighting, incorrect or incomplete measuring material, and interruptions)
- errors in time limits or other controls.

Examples of scoring errors are:

- errors in observation and scoring, for instance clerical or calculation errors
- errors in the interpretation of values, such as norms
- distortions of data by research subjects and researchers.

### **22.5.4 Errors by researchers and assessors**

Errors made by researchers could be due to insufficient skills and competencies or to subjectiveness in attitudes, values and behaviours. Researchers should be aware of their power to influence research, assessments and findings. Researchers are human: it is very difficult for them not to reflect some aspects of

their own preferences, expectancies, values and attitudes in research. This is borne out by the fact that many, if not all, theories in psychology also reflect something of the relevant theorists' personal views and experiences. Researchers should, as far as possible, be objective in research and assessment practices. Researchers' behaviour patterns that might cause uncontrolled error variance could include having little integrity, being untruthful, wishing to establish something or to prove a certain point by distorting data and findings, or reporting on non-existent data. Examples of untruthful psychological research do exist, such as the fraudulent research done by Cyril Burt on intelligence and genetics, and that done by Stephen E. Breuning on mentally disabled people (Holden, 1987).

Subjective influences that can cause invalid findings include the following rating effects:

- The *halo effect* occurs when the assessor gives the same level of score or rating over all dimensions. This usually happens when the rater forms an impression on one outstanding aspect only and this influences all subsequent scoring. For example, an employee who is very friendly during an interview or test may be rated highly or positively in all dimensions.
- The *context effects* refer to situations where employees, for example, are rated similarly to the rest of their work group (*the assimilation effect*) or when employees are either rated much higher or lower than their work group (*the contrast effect*).
- The *central-tendency* effect occurs when a rater tends to allocate only average scores, for example, three on a five-point scale.
- The *severity effect* occurs when the rater tends to give only very low (negative) marks.
- The *leniency effect* occurs when the rater tends to give very high (positive) marks.
- The *order effect* occurs when the order of available information influences ratings. For instance, raters may score what they have seen, heard or experienced last more positively, negatively or accurately (*the recency error*). In the same way, *first impressions*, for example an applicant arriving late, or physical attractiveness, may influence ratings even more than recent information.
- *Negative information* tends to influence raters more than positive aspects (for example, when assessors look for mistakes, rather than assessing strong points, in performance appraisals).

- *Rating errors* may occur because of personal preferences. People often like a person who resembles them in some respects. Physically attractive assessees may be assessed more positively, and ratings may also be biased for reasons such as age, race, gender and other demographic variables.

Other aspects of research efficiency are related to how economical research is in terms of time, finances and the use of human resources, participants' awareness of their role, changes and even mortality in research participants, whether the research achieves its predetermined goals, and how research relates to ethical principles and sensitive social issues.

## 22.6 PROFESSIONAL, ETHICAL AND SOCIAL ISSUES IN PSYCHOLOGICAL RESEARCH

Ethical and moral issues are extremely important in every aspect of psychological science, whether it is in theorising about human behaviour, assessment, research or other practices to influence human behaviour. Psychological science must comply with unwritten and written frameworks and rules that regulate research behaviour with regard to what is fair and acceptable. In this regard, ongoing questions are asked about deception or simulations in research to execute certain research designs, and on animal research (Weiten, 2011).

### **ETHICAL READER: The ethical principles to which all psychologists and human resources practitioners should adhere**

All psychologists and human resources practitioners (assessors, researchers, therapists, counsellors and other human resources workers) should adhere to certain ethical principles. Christensen (2001) describes these principles specifically with regard to research:

- *Professional and scientific responsibility* demands that psychologists, in their different roles and through their knowledge, skills and activities, should serve the best interests of the profession and their clients and take responsibility for their actions.

- *Competency* implies that psychologists should maintain high standards by reflecting qualifications and experience accurately, where necessary staying up to date in their sphere of practice and executing tasks professionally and in a planned and responsible way.
- *Moral and legal standards* compel psychologists to be aware of and sensitive to prevailing standards and issues and not to act, or use methods, in a way that will offend or not be in the best interest of clients. Psychological tests, and other processes and decisions involving people, must be fair and undiscriminating.
- *Confidentiality* implies that any information about any client will be respected as private. Such privileged information will not be divulged, except with the client's consent, in any way or to any person, or used for any reason other than the original objective of the action. The psychologist must, however, be alert to possible disadvantages for the client if information is withheld.
- *Informed consent* refers to the client's autonomy and freedom of choice in terms of what actions will take place, and the client's right to be informed about any overt or covert procedures. The client's privacy may not be invaded, except if the client is aware of the fact that his/her behaviour is being observed. If covert observations are necessary, participants must be debriefed. Clients must not be coerced or forced to take part in any action.
- The *welfare of individuals and groups* is always paramount. Clients may not be subjected to any physical or mental discomfort, or to only the minimum which is realistic in the situation. No action, procedure or type of relationship may harm the integrity of the professional contract between psychologist or researcher and client. Psychologists must steer clear of consulting with family and close friends, not be romantically involved with clients, and be open to clients about fees and termination of services if no progress is being made.
- *Benefits of research* refer to the careful consideration and planning for research to determine the benefits to the research participants, the financial implications, possible psychological consequences or health risks for participants, the benefits for the researcher and the objectives of the research (that is the type of

knowledge or outcome that is to be achieved).

- The *making of public statements* and the marketing of services by psychologists may only be done according to policy and in such an unbiased and non-commercialised way as to not degrade other professional people and to give the client the freedom to choose. Psychologists may not use or receive favours in any way to enhance their services, and may not advertise directly or receive commercial gain in advertisements.
- *Professional relationships* must be upheld at all times. The status of colleagues and other professions must be respected. Relationships with clients, students or research participants must never be on a personal, romantic level and sexual harassment of any nature is inexcusable. Psychologists must only take credit for contributions they have actually made, and may not intervene, without agreement, in the practices of other psychologists. Psychologists should have the moral duty to report any misconduct that will harm the interests of the profession.
- In *animal research*, if it is necessary, psychologists should apply all scientific and legal demands and be sensitive to any societal or ecological norms. Research with and on animals should be carried out according to scientific and planned research procedures. Minimal or no harm or degradation should be done to animals.
- *Conflicts over ethical principles or ethical dilemmas* may arise when psychologists have to make decisions that might seem contradictory. These may be with regard to the potential value or benefits of research results in relation to the interests of research participants, research costs and personal gain in favour of the researcher. Divulging confidential information, for instance about a client's dishonesty, may represent an invasion of privacy. However, it may be in the client's best interest to do so, provided such a decision is not taken to cause harm.

Ethical issues in business, and also psychological practices with regard to ethics and its related human rights and legislative contents, are applicable and relevant to psychological research. With regard to human rights too, psychological

research and assessment, and the decisions and actions resulting from them, need to be used to benefit people, but these processes also have pitfalls and can be used incorrectly or abused (Lindsay and Colley, 1995; Kimmel, 1996; Christensen, 2001). In most countries professional associations in the social sciences have and adhere to guidelines for research (Maltby et al., 2007) and for the publication of research findings (American Psychological Association, 1994; Foxcroft and Roodt, 2009; “*Journal of Industrial Psychology*”, 2005: Guidelines exist for authors, as well as guidelines with regard to ethics and the development of assessment techniques and their use (International Test Commission, 1999; SIOPSA, 1998a, b).

### **22.6.1 Professional and ethical standards**

In South Africa, as in many other countries, the training and practices of psychologists are controlled by law and various controlling bodies. All professional and practising psychologists must be registered with the HPCSA which, through the Professional Board for Psychology, controls and applies the laws regarding psychological training and professional activities. PsySSA manages the code published as *Ethical codes for psychologists*, which stipulates values and norms for psychologists with respect to both professional activities, such as testing, therapy and research, and their own actions, as well as behaviour towards colleagues and, especially, clients.

### **22.6.2 Basic assumptions and ethical principles**

The basic ideals and assumptions underlying psychological practices are based on the recognition of basic human rights in the South African Constitution, which include the recognition of the worth and dignity of the individual irrespective of race, creed, sex, status and language. This recognition includes the understanding that people are all alike in some respects, that some people are alike in some respects, and that every individual is also unique in some respects. In summary, these assumptions entail the responsibility of psychologists to use research knowledge, methods and skills objectively and in an unbiased way to understand human behaviour better and to facilitate the welfare of people. According to Durrheim (in Terre 'Blanche and Durrheim, 1999) and Maltby *et al.* (2007), the ethics of research processes are based on a few general ethical principles, as follows:

- Research participants should always have autonomy and not be forced into actions.

- Research participants should be able to execute informed consent with regard to research processes.
- Research should comply with all applicable legal requirements.
- Research should not harm research participants or other people in any way (the principle of non-maleficence).
- Research should be directly or indirectly beneficial to all research participants and society at large and result in positive good (the principle of beneficence).

According to L.B. Christensen (2001), ethical issues in research are essentially about the relationship between society and science, professional issues, and the treatment of research participants.

### **22.6.3 Social issues in assessment and research**

Part of a psychologist's professional and scientific responsibility is to serve the best interests of the client and the community. This is best achieved if the psychologist has an objective and unbiased attitude, and knows the relevance, strengths and limitations of psychological knowledge, practices and methodologies to use these responsibly. Psychologists and their practices do influence, and can change, people's lives, and they should accept accountability for this (Hook et al., 2004).

In this regard, Eagle, Hayes and Sibanda (in Terre 'Blanche and Durrheim, 1999) provide an excellent discussion on alternative research practices in their examination of "standpoint research" (for example, the role of Marxist, feminist and Black scholarship standpoints on research). In essence, these groups have critical viewpoints about social and political issues that they adhere to in research, or which other researchers should consider. These groups tend to oppose vested interests and use research to effect change with regard to neglected or disempowered groups or ideas.

One of the critical issues in psychological research and assessment is using psychological data scientifically and in an unbiased and fair manner (Foxcroft and Roodt, 2009). Duckitt (1992) discusses prejudice in psychology across time in various practices in some detail. Two of the sensitive areas in which the use of psychological research findings and assessment data has spurred controversy and even legal action are:

- personality attributes and other issues related to gender and race, as well as selection and promotion decisions
- legal cases in which psychologists appear as expert witnesses.

### 22.6.3.1 Social issues surrounding the assessment of personality attributes

The controversy of bias in testing originated in the fact that individuals and groups from different cultural and ethnic backgrounds, as well as males and females, obtained different scores on ability tests, such as IQ tests. The issue of bias in testing practices can be divided into two interdependent but separate controversies, test bias and test fairness (Gregory, 2007). For many reasons, especially ideological, political and emotional reasons, confusing and often incorrect interpretations surround these issues.

*Test bias* exists when statistical indices indicate that a test is *differentially valid* (not the same for all) for different groups of a population. Usually this happens when people – because of differences such as culture, education, age, gender and language – understand test items differently or find the test items not equally difficult. If a numerical reasoning test is set in English for comparable males, but a number of them cannot understand English well, and the test scores predict success differently for the two groups, test bias exists. In this case the score differences can be attributed to the differences in language, or cultural differences, rather than differences in numerical ability. Test bias may also exist if test items are about a subject of which a specific person or a subgroup has no or little knowledge, and are scored without taking this into account. Some people, may be for reasons of culture, will find such items difficult to answer, though they may be very intelligent.

If computer-related questions are used to test IQ in 12-year olds in South Africa, they may for many reasons be biased in favour of city children as opposed to rural children, and probably in favour of some ethnic groups. In the same manner, test bias can exist if the underlying construct that the test is supposed to measure (such as, numerical reasoning) is measured differently for different subgroups or by two different tests.

In general, however, research on test bias, using statistical indices such as factor analysis, regression analysis and inter-group comparisons, indicates that in the domain of ability tests, little test bias exists between different cultural groups and between the sexes (Gregory, 1996). In South Africa, research also verifies this with regard to certain aspects of bias. However, more research is necessary to verify these assumptions and to discard the cognitive and emotional misconceptions of ability and other forms of testing in and between groups (PsySSA, 1992; Meiring, Van de Vijver, Rothmann and Barrick, 2005).

D. Meiring, A.J.R. van de Vijver, S. Rothmann and M.R. Barrick (2005)

analysed the scores of 13 681 entry-level job applicants in the South African Police Service on cognitive tests (including some English reading, comprehension and spelling), as well as the 15-Factor Personality Questionnaire, with regard to construct bias, method bias (for example, response sets) and item bias. Results revealed quite positive outcomes. The cognitive tests had good construct validity for all groups and low item bias. However, some personality scales of the personality test showed construct bias in various ethnic groups. Item correlations for some personality scales were also low (internal item consistency) in black groups, but showed little item bias. It also seems as if no method bias influenced the scores on the personality tests across all groups.

In a related type of research, M. Vorster, C. Olckers, M.A. Buys and P. Schaap (2005) researched the construct equivalence of a job-analysis questionnaire, the Job Diagnostic Survey (JDS), for a diverse South African cultural group. The results indicated that no differences existed between black groups and white groups.

*Test unfairness* occurs because of ideology, human prejudice and bias (Dipboye, Smith and Howell, 1994; Walsh and Betz, 1995). Test unfairness can also happen in unfair personnel policies and strategies, incorrect test administration, and prejudiced decisions based on test scores, whether the test is statistically biased or not (see the box below).

### **ETHICAL READER: Policies to correct injustices**

Many unfair policies and uses of test procedures and test scores are vested in ideological, political and emotional attitudes and prejudices directed at consciously favouring certain people or groups. If an individual or group is, for example, excluded from a process of job selection, and is not given the same chance as other comparable people because of unfair personnel policies and testing procedures, then the procedures amount to discrimination and unfair testing.

Such actions have led to the introduction of affirmative action and personnel policies to correct injustices (for example, those that are due to previous political dispensations and unfair labour practices).

Whilst some pleas for the banning of psychological tests failed, they did result in more scientific scrutiny with regard to assessment and research processes, and energised enormous growth in psychological assessment in the work context.

Psychological research and assessment must be designed and executed purposefully, and must be based on sound theoretical and practical principles. It requires vigilance in order to be used fairly and correctly.

### **22.6.3.2 Issues surrounding psychological diagnoses and predictions in legal cases**

Practical applications of courtroom testimony by psychologists include crime cases in which the psychologist not only has to determine character profiles, but also has to testify in pleas of insanity at the time of the crime, the determination of competency to stand trial, and the prediction of possible violent or other dangerous behaviour. Other examples are testimony in divorce and child-custody cases, and the determination of trauma owing to injuries in accidents or other mishaps, and even the determination of career-development implications and loss of income potential in cases of unfair job dismissals.

With regard to legal actions, assertions are made that psychological diagnoses and predictions of human behaviour often lack reliability and validity, and that expert psychological testimonies do not actually assist in legal decisions (Faust and Ziskin, 1988). Contrary arguments are offered by others, such as J.D. Matarazzo (1990), who asserts that psychological practices have sufficient credentials in these matters.

## **22.7 OTHER METHODS USED IN APPLIED PSYCHOLOGY AND PRACTICE AREAS**

A discussion of methods in psychology can be structured in various ways, for example, according to specific methods (which will be an ongoing task), or according to various types or classes of methods and applications (which is a more integrating approach). In this regard, much has been written on applied psychology and its methods and specific applications. However, except for research, assessment and therapy, there does not seem to be any source that covers a broad spectrum of psychological methodology only. This book's classification is an effort to classify and describe psychological methods according to certain types, and it is not necessarily complete, and may contain overlaps between the classes of methods. This classification of methodology is also related to all applied fields, and may relate to interventions at individual,

group and organisational levels. In I-O Psychology the field of consulting psychology is an applied field, which integrates knowledge and methods from many disciplines (for example, clinical psychology, I-O Psychology and social psychology) in its task to provide consultation on human behaviour and work processes on individual, group and organisational levels (Lowman, 2004).

### **22.7.1 Methods of discourse and interaction**

Methods of discourse and interaction are characterised by the use of interpersonal processes to obtain information or to influence human behaviour. Two such methods are interview-related techniques, and therapeutic and counselling procedures.

#### **22.7.1.1 Interview-related techniques**

*Interview-related techniques* mostly entail some type of purposeful interaction between two or more people (for example, in structured or unstructured interviews) to gather or give information or to influence people's behaviour and decisions. Interview techniques are primarily utilised in psychological assessment, information gathering and feedback practices (for example, as part of clinical or psychiatric diagnoses of psychological disorders, gathering, giving or verifying information in employee selection and appraisal procedures, and in gathering of data in research processes). Though good interviewing results from training, interviewing is often used less effectively because people lack training or because the use of interviews is not necessarily governed by laws or professional and ethical regulations and guidelines.



**Figure 22.12** Interview-related techniques mostly entail purposeful interaction between two or more people.

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### 22.7.1.2 Therapeutic and counselling procedures

Related to interviewing or verbal interaction are various types of *therapeutic and counselling procedures* aimed at facilitating or influencing a change of behaviour in individuals or groups. Therapy, utilised most by various types of therapists, is primarily aimed at the treatment of emotional and other psychological problems in the applied fields of clinical, counselling and abnormal psychology. Counselling is a process quite similar to therapy. For example, career counselling is most often directed at helping people with problems in making career choices, which may involve emotional discomfort, but is not necessarily as “intense” as the therapy used in psychological disorders. Users of therapy and counselling should have professional training, and are mostly professionally registered psychologists governed by specific training courses, formal legislation, professional bodies and related ethical codes. Though these requirements are largely adhered to, some grey areas still exist, for example, in the field of so-called “consulting, mentoring, guidance and *group facilitation*”, in which untrained people often operate without being aware of the

consequences that certain interventions may have.

In the same category as therapy and counselling are the specific knowledge, skills and methods for effective group facilitation. These include:

- more structured approaches (in which facilitators are more active and provide structure, such as using group decision-making strategies or electronic media, to encourage interaction and performance in groups)
- more unstructured approaches (in which facilitators are less active, and rather facilitate the use of the group's own energy and resources to create its own structures, to understand its own dynamics and, in this way, to grow and solve possible problems).

A technique increasingly being used to facilitate change in individuals, groups and organisations is *Appreciative Inquiry* (AI). This technique, initiated by David Cooperrider and Associates (Cooperrider and Suresh, 1987; Hammond, 1996), is based on a positive approach to get people thinking and acting in a powerful way to achieve change and growth in their personal life and in organisations. AI does not focus on negative language and problems, but works according to the assumption that the goals or excellence people want to achieve already exists, possibly in hidden form, but must be generated, given energy and explored to do more that works, and avoid what does not work. This seems to be a way to apply the principles of well-being or salutogenesis and human strengths in organisations, and to look for the resiliency and positive resources in a group or organisation. In a rather complex methodology or system of inquiry, AI creates images that will affirm the positive or life-giving resources that already exist, work or are known, and which can take growth into the future. The inquiry consists of various stages or rules, which an individual or group follows to make decisions and to act. These stages operate in a “four-D” cycle format, known as *discover, dream, design and deliver*.

A type of counselling intervention is *executive coaching*, in which experts in consulting psychology counsel and advise executives in organisations with regard to their own functioning, but also with regard to processes in organisational functioning, with a view to possible change interventions.

### **22.7.2 Methods of measuring, assessing and appraising**

Psychological and personality test assessment is discussed in Chapter 21, therefore only a few comments will be given here on these methods and applications. As with the competencies for interaction, effective assessment of

knowledge, skills, personality and other attributes should be a major competency for most psychologists, because effective assessment of covert and overt human behaviour forms the basis for research, interventions and decisions in many psychological disciplines.

As in therapy and counselling, users of most psychological tests and other techniques should have professional training, and are mostly professional registered psychologists governed by specific training courses, formal legislation, professional bodies and related ethical codes. Examples of such tests and techniques are the measurement of neuropsychological aspects of human behaviour and psychological tests to assess underlying and overt personality, and cognitive and emotional attributes.

However, in many practice areas effective assessment of human behaviours, especially more overt behaviour, is not only based on psychological tests, but also on *other approaches* which ideally also should adhere to the requirements of effective psychological or psychometric measurement and control (such as standardisation, validity and reliability). Sadly, these are often also used by less competent individuals in many practices. Other than psychological tests, examples of techniques used are the many types of surveys, rating scales and questionnaires used to assess human behaviours, attributes, values, attitudes, work performance and orientations such as stress management, coping styles, and so on. In the practice area of organisational psychology, in the assessment or diagnoses of, for example, organisational climate, culture and trust, questionnaires, surveys and rating scales are often used to assess employees' attitudes and perceptions on various aspects of employee and organisational functioning. Though many of these techniques have good empirical support (that is, they are used by many assessors in various situations with good validity and reliability coefficients), many of these techniques may have questionable value because of poor psychometric properties.

Assessment of behaviour based on skilled *observation* of behavioural attributes and processes is an assessment approach often expertly used by well-trained professionals. Examples are observation by clinical psychologists and other experts of emotional expressions and other signs and symptoms related to psychological disorders. In I-O Psychology, assessment-centre assessors (who should be qualified) observe and judge individual and group behaviour in simulations, role plays and other assessment tasks according to specific dimensions. In the assessment of work behaviour, employees are also often assessed through ratings or judgements by I-O psychologists for effective or

impaired work performance, for example, during performance-appraisal techniques. Similarly, in job-design tasks, for example, in job analysis, job tasks, functions and roles are allocated by analysing the observed competencies that job incumbents display, using, for example, techniques such as the Job Diagnostic Survey (JDS) and the Competency Profile Analysis.

However, in many practices, such as interviewing, these types of technique are also not necessarily controlled as psychological tests are, and they are assessment approaches often used by many less-qualified people involved in practices focusing on human behaviour. As in some instances in the measurement of attitudes, many rating or appraisal scales are techniques constructed for use in a specific situation, with little empirical support or evidence of psychometric qualities to render such techniques valid and reliable for use.

A final type of appraisal approach often used in psychological disciplines, often in association with other techniques such as interviews and psychological tests, is *historical and archival information* – the principle being that the past may be effective in predicting the future. Examples are the use of biographical and demographic factors of people in work applications or the assessment of people's personal history with regard to physical or medical illnesses in diagnosing psychological disorders. Biographical and demographic items used in assessment can include many human developmental and historical aspects, such as age, gender, medical history, family-illness history, academic record, work experience, personnel leave and promotion records, religious aspects, preference, family structure and so on.

*Classification*, an aspect of psychological knowledge and application, is also used in psychology applications. Examples of this are diagnostic systems such as the *Diagnostic Statistical Manual (DSM)* and the *International Classification of Diseases (ICD)*, which are used to diagnose and classify psychological disorders. Many other classifications are used as measured by certain instruments (for example, personality traits, types of leadership and management, coping styles, and types of abilities and intelligence). These classifications are also used by psychologists in training, assessment and research.

In I-O Psychology, *assessment of systems* or organisations on a macro level is executed through organisational diagnostic techniques, such as surveys, focus-group interviews, and the analysis of employee and company records. This is done in order to assess organisational effectiveness and to plan change interventions.

### **22.7.3 Techniques in people training and development**

Many techniques aimed at influencing and changing human behaviour can be classified here, for example, the above-mentioned counselling and therapeutic techniques. In general, however, *training and developmental techniques* are aimed at facilitating and changing certain competencies and behaviour in people. For example, the aim could be to facilitate the acquisition of knowledge and insight into the implications of this knowledge and its applications, and the establishment of life and specific task-related skills based on this knowledge. Another example would be if the aim were to develop people with regard to changes in attitudes, assertiveness, the handling of conflict or stress, negotiation or interpersonal skills such as listening and presentation.

Developmental and training techniques are based on various theoretical assumptions, but are also often based on learning principles and cognitive assumptions. They are probably used mostly in academic, educational and workplace training, as well as in career-development counselling and in motivational strategies and strategies for the enhancement of employees' well-being. The latter may include therapy and counselling, and many training interventions aimed at improving employee work behaviours. The strategies may also include information on occupational health aspects, and specific training to promote psychological well-being, such as improving self-control or self-management by utilising training related to self-efficacy beliefs, emotional intelligence, assertiveness, and so on. Many of these techniques may be aimed at the facilitation of motivation and job satisfaction in general, or with regard to specific areas in employee and organisational performance.

### **22.7.4 Content or thematic analysis of human behaviour protocols and records**

Most of the above-mentioned approaches can be classified as quantitative, objective or mechanical in nature, that is involving assessment according to certain predetermined procedures and rules. Other techniques, however, may emphasise a more subjective and intuitive approach to presenting information or analysing and interpreting data.

*Content or thematic analysis* of behaviour may also follow certain structures, but is more qualitative, subjective and influenced by the assessor or analyst's frameworks and preferences of knowledge and interpretation, and, even, personal values, beliefs and attitudes. Some of the above-mentioned techniques

may be related to this approach, especially interviewing, therapeutic and observational techniques and, even, analysis of biographical and historical information.

The essence of assessment in this approach aims to allocate meaning or find themes in examples of human behaviour, for example, in people's discourse or writings about life, experiences and events. In psychological assessment, through so-called "projective techniques," such as sentence completion and the telling of stories about ink blots (for example, the Rorschach Test) and picture series (for example, the Thematic Apperception Test), trained psychologists use guidelines from psychological theory and scoring systems to interpret responses or protocols to have certain types of psychological meaning related to people's cognitive, emotional, social and moral functioning. Less formal qualitative assessments are also made when participants' answers on structured or unstructured items are classified into certain themes and interpreted, also in association with more objective findings.

*Narrative or discourse analysis* is not new, but has been more emphasised in recent times, under the influence of postmodernism in psychology, including cultural, cross-cultural, constructionist, social constructionist and narrative psychological perspectives. This emphasis on more qualitative assessment and scientific inquiry or research is a result of the belief that much of the meaning systems or knowledge about human behaviour is based on the social constructions of each person, observers and assessors. Such constructions contain meaning about the interactions or social realities of people, whether such interpretations are made by common people or in more scientific interpretations. A problem about some existing, and also some newly generated knowledge, is that it is or will be influenced, biased and prejudiced by factors such as human values, beliefs, preferences and attitudes. Knowledge is a powerful resource, and incorrect or biased findings and knowledge may become part of people's own belief systems about themselves, others and total societies. Beliefs and knowledge of people and about people may be very realistic and healthy, but biased or incorrect knowledge is also applied in many systems in people's lives (for example, in politically oppressive or discriminatory systems), which may have far-reaching educational, economic, health, psychological, moral, religious and other consequences for many people.

A final form of content analysis is situational and event analysis, in which subjective or more quantitative interpretations and rules can be deduced. Examples of such analysis in the work context are the analysis of work stations

and work processes in order to design or redesign jobs with regard to their physical, social and intellectual requirements. Situational analysis is also relevant to the establishment of job descriptions in order to determine exact job or task roles and responsibilities, or in job and performance evaluations to determine job levels, organisational structures and reward structures.

#### **22.7.5 Methods within methods**

The methods within methods tend to get lost in discussions on methodology, because it involves meta-cognition or reflection about methods. This involves the experiences, knowledge, skills, processes and best-practice applications to develop or execute certain applied tasks, which psychologists may have in varying degrees (Pawlik and Rosenzweig, 2000), and which may be based in a specific person, institution or context of application.

In this regard, the construction of psychological tests (such as questionnaires) and other techniques (such as interview schedules) entails certain procedures and competencies (for example, in writing and analysing items to be finally retained in a measurement technique). This is also true about the mathematical procedures and skills involved in developing measurement scales (for example, five-point scales), or in research to calculate correlations or how to facilitate an organisational culture change. Different types of techniques or processes should also exist on how to obtain quantitative or qualitative data or to interpret data gathered according to these methods.

Other examples are the thinking and methods for planning and developing training materials and manuals to be used. In applications such as psychological assessment, feedback and presentation of materials and results there is much specific knowledge and many skills that can be offered. Many other methods in psychology also require the psychologist and practitioner to have specific experience, knowledge and skills in order to apply such techniques effectively, and which can be shared by other users.

### **22.8 SUMMARY AND CONCLUSION**

The effective understanding, description and prediction of human interaction in the work context requires ongoing basic and applied scientific research and other methods to find the most suitable fit between people and work environments, and to validate knowledge and methods about human behaviour.

Scientific research is validated by its characteristics of empirical thinking,

objectivity, verification and logical-reasoning processes. These scientific requirements make scientific research systematic, logical and objective, compared to mere speculation, untested ideas, intuition and other unscientific modes of inquiry.

Effective research designs are essential to yield relevant and valid research processes, data, results and conclusions. Quantitative research designs are generally characterised by a positivist research paradigm in which reality is viewed externally and objectively, and research data is obtained, processed and interpreted by objective and quantitative methods. An interpretative or qualitative research design will be recognised by a more empathetic and subjective understanding of the reality of human experience, and by the use of more subjective and qualitative methods to obtain and interpret data. Adherents of constructionist research believe that reality is constructed by each individual and group and the way they think. These researchers are often politically motivated and critical of existing ideas, and will form their own constructions of reality by methods such as analysis of written and spoken communication (discourse). Political and gender groups who wish to facilitate neglected topics, groups or ideas will also influence research design.

An early decision in research design concerns the context of research and the units of analysis, that is what types of variables, situations and people will be researched and whether research will be basic or applied.

The planning and execution of research are usually undertaken according to certain systematic steps or activities. Each step is necessary to ensure design coherence (that is, all activities of the research need to be congruent with the research paradigms, the purpose of the research, research questions, research methodologies and the interpretation of results).

Research data can be processed, presented and interpreted through descriptive statistics to organise and summarise data. Inferential statistical methods can be used to draw certain conclusions. The type of statistical analysis will also be determined by the research design, the research sample and the type of data.

Valid and reliable research processes and results are also characterised by no or few measurement errors in the research design and during research processes. Conclusions in research can be valid and generalised or transferred to other situations only if the research design is valid, and if the samples of research subjects or situations and data are representative of other contexts. Research is strongly influenced by the ethics of researchers and research processes. Fair research will serve the interests of the general public and all research

participants. Ethical dilemmas will occur if there is conflict between the potential advantages of research, the interests of research participants, and the costs of research.

Decisions about people based on research and assessment results will be biased, prejudiced and unfair if people are excluded from opportunities or activities, or discriminated against on any grounds other than what is acceptable with regard to the purpose of research and assessment.

Scientific research in psychology is essential to validate and create assumptions, concepts, theories and practices, and to stimulate ongoing debate and discourse with regard to human behaviour and social realities. The variation in concepts and methodologies allows researchers and practitioners to use the most applicable variables and methods in specific situations. In many instances, theory, methodology (for example, assessment) and research in psychology have developed into supportive tools to explain, describe, predict and systematise knowledge of human behaviour in various contexts and in all its complexities (Pervin and John, 1997; Pawlik and Rosenzweig, 2000; Cervone and Pervin, 2008).

However, particularly in changing or transforming societies, new and ongoing thinking and research about the relevance of previous and current theories, and the applicability of methodologies, is necessary. It is important, therefore, in contemporary societies such as South Africa, that all research paradigms are encouraged to reflect the scientific truths about human behaviour in the work context and in other related social realities. Potentially influential in human behaviour, research and assessment methodologies in psychology will have to strive for unbiased and objective processes, results and conclusions. In this regard all participants must guard against the potentially harmful effects that research may have if the power of knowledge generated by research is not managed correctly and ethically, and if research is used to reflect participants' own emotional and political agendas.

Apart from scientific inquiry, many other methods related to applied psychology in general, and to specific applied fields, are utilised by psychologists. Specific methods are too numerous to discuss, and classes, groups or types of methods have been used as integrative classification criteria. In this regard, methods based on human interaction, assessment or appraisal, training and development, content or meaning analysis, and methods within methods have been suggested and discussed.

## 22.9 ASSESSMENT ACTIVITIES

### Multiple-choice questions

1. One of the following statements does not reflect the nature of a science:
  - a) Certain concepts, findings and methods of a scientific discipline are generally accepted.
  - b) It is the systematic and logical inquiry about questions and phenomena.
  - c) Science is rather qualified by people's personal experiences or constructs of events.
  - d) Science is confirmed by the verification of existing concepts and knowledge.
  - e) Scientific thinking reflects the manner in which researchers give meaning to phenomena.
2. Logical thinking, objectivity and testability refer to:
  - a) certain requirements which researchers must adhere to.
  - b) steps or activities during the research process
  - c) types of research strategies and methods
  - d) reliability and validity of assessment in research
  - e) characteristics of a scientific approach and thinking.
3. When a person compares the influence of music on work performance amongst gender and age groups, gender and age are \_\_\_\_\_ variable/s in the research design:
  - a) moderator
  - b) independent
  - c) dependent
  - d) discrete
  - e) predictor.
4. During a discussion at a psychological conference on female career performance, one of the presenters, by using statistical findings, concluded that the ideas of female subordination and male dominance are used to create the idea that men are better achievers in jobs compared to women. This research reflects the underlying assumptions of an \_\_\_\_\_ approach in research:
  - a) variability
  - b) constructionist

- c) hypothetico-deductive
  - d) interpretive
  - e) qualitative.
5. In a research project it was found that applicants with a Bushman culture obtain low scores on intelligence and aptitude test and was often excluded from posts, even if the tests were translated into a relevant black language. Following critique and after a thorough check on all possible measurement and research errors, the finding was that the contents and tasks in the test items in many cases do not reflect what the Bushmen would consider to be intelligent according to their cultural learning. The conclusion was drawn that the original scores and findings of these tests were incorrect mainly because of errors in one of the following aspects:
- a) severity effect
  - b) negative information
  - c) moderator effects
  - d) test bias
  - e) reliability.

### **Answers to multiple-choice questions**

1 = c; 2 = e; 3 = a; 4 = c; 5 = d

### **Issues for discussion and practice**

1. Using any recent traumatic event (for example, the 9/11 attacks in the USA, the Boxing Day Tsunami and nuclear threats in Asia) as the subject of your research, indicate the possible meaningfulness of these events to people by using the interpretative and social-constructionist paradigms.
2. Find reports in your daily newspapers on any physical and psychological health issues in work places. Try to assess how the research was executed, what type of research was used, what type of conclusions were drawn, and whether you think there are possible research errors and how such errors could influence the scientific credibility of the research findings.
3. An industrial psychologist wants to assess the job satisfaction of a diverse group of employees in an organisation, which is an established international company in building power stations, and which is the

reason why many employees from European and Asian countries are also employed. She plans to use a South African job satisfaction questionnaire and an interview technique on all employees. Communication will mainly be in English, and she also plans to later compare black and white employees, and employees from other countries.

Critically evaluate possible ethical problems, and possible research measurement errors in this proposal.

4. Except for the use of research and psychological assessment techniques, discuss other types of psychological methodologies related to human behaviour you might be familiar with or have experienced in a work context.
5. After thinking about your own life and talking to people and discussing it, identify ways how research findings in the social sciences (in South Africa and in general) have influenced your life and/or the lives of others.

## CASE STUDY

You are commissioned to do research and report on the relationship of job satisfaction and job engagement with work performance and tenure of employees in company YZN.

1. Explain how you would use different research paradigms.
2. Describe the possible steps or activities that you would follow to execute this research project.
3. Explain your thinking on stating a hypothesis or hypotheses.
4. Identify the research variables, and show how you would measure and control relevant variables.
5. Describe the type of research and the research methods you would use.
6. Consider what possible errors you would have to control, and the possible ethical and social issues that you would have to check.
7. Show how your research would adhere to the principles of scientific thinking.
8. Discuss possible other methods you could use in interventions that may result from your findings.



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# English-Afrikaans glossary

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## A

**ability traits** – vermoëns trekke

**abscissa (x-axis on graphs)** – absis (x-as op grafieke) **accommodation** – akkommodasie, aanpassing by **achievement motive** – prestasiebehoefte/-motief **achievement tests** – prestasietoetse

acquired immunodeficiency **syndrome (Aids)** – verworwe

immuñteitsgebreksindroom (Vigs) **acrophobia** – akrofobie, hoogtevrees

**action potential** – aksiepotensiaal, senuwee-impuls **actualization** – realisering, aktualisering **actualising tendencies** – bereikings-/verwesenlikingsneigings

**acute stress** – akute, intense stres

**adaptation (adjustment)** – aanpassing

**adaptive learning** – aanpassingsleer

**adjourning** – verdaging

**aesthetic** – esteties

**affective state** – affektiewe/gemoedstoestand/emosies **affiliation** – affiliasie, betrokkenheid

**affirmative action** – regstellende aksie

**Afrocentric** – Afrosentries

**aggregate** – aggremaat, totaliteit

**agoraphobia** – agorafobie, ruimtevrees

**aha-experience** – aha-ervaring, insigmoment **algophobia** – algofobie, pynvrees

**algorithm** – algoritme (ondubbelsinnige instruksies vir probleemoplossing)

**alienation** – aliënasie, vervreemding

**allele** – alleel (tipe gene gesamentlik verantwoordelik vir oorerwing) **ambiguity** – dubbelsinnigheid

**amnesia** – amnesie, geheueverlies

**analogy** – analogie, gelykvormigheid

**anchor** – beginpunt, ankerwaarde

**andragogy** – andragogie, volwassene opvoedingsleer **anima** – anima, vroulike

in mans  
**animism** – animisme, bonatuurlike  
**animus** – animus, manlike in vrouens  
**antecedent** – antesedent, voorafgaande  
**anthropocentrism** – antroposentrisme, mensgesentreerdheid **anticipatory**  
**socialisation** – antisiperende, afwagtende sosialisasie **anxiety based disorder**  
 – angsgebaseerde versteuring **apparent movement** – skynbare beweging  
**appearance factors** – voorkomsfaktore  
**applied fields** – toegepaste velde  
**applied research** – toegepaste navorsing  
**appreciative inquiry** – waarderende ondersoek, navraag **aptitude** – aanleg  
**archetypes** – argetipes  
**archival sources** – argiefbronne  
**articulated** – geartikuleerd, duidelik  
**assessment centre** – takseersentrum  
**assessment method** – evalueringsmetode **assimilation** – assimilasië,  
 inkorporasie  
**association neurons** – assosiasieneurone, verbindingsneurone **attachment** –  
 gehegtheid, binding  
**attraction** – aantrekking  
**attitude** – houding  
**attitudinal values** – houdingswaardes  
**attributes** – attribute, kenmerke  
**attribution** – attribusie, oorsaakbydraë  
**authentic self** – werklike, ware self  
**authoritarian** – outoritêre  
**autonomic nervous system** – outonomiese senuweestelsel **autonomy** –  
 outonomie, onafhanklikheid  
**avoidant** – vermydend  
**axolemma** – aksolemma  
**axon** – akson, geleidingsenuwee  
**axon terminal buttons** – aksonverbindingsknoppies **axon terminals** –  
 Aksonverbindings, aksoneindpunte **axoplasm** – aksoplasma, aksonkern

## B

**behaviour modification** – gedragsmodifikasie, gedragsverandering  
**behaviourally anchored rating scale (BARS)** – gedragsgeankerde

beoordelingskaal **behavioural assessment** – gedragsmeting  
**Behaviourism** – Behaviourisme, gedrag-, leerbenadering **belief** – oortuiging, geloof  
**benchmark** – teikenpunt  
**benevolence** – welwillendheid  
**bias** – bevooroordeeldheid, sydigheid  
**bimodal thinking** – bimodale denke  
**binocular** – binokulêr, beide-oogwaarneming **biographical data/biodata** – biografiese/historiese data **bi-polar depression (manic-depressive)** – bi-polêre depressie (manies-depressief) **blindsight** – blindesig  
**bodily-kinaesthetic intelligence** – ligaamsoriëntasie-intelligensie **bodily self** – liggaamlike self **bonding** – binding, gehegtheid  
**borderline personality disorder** – grensgevalpersoonlikheidsversteuring  
**bottom-up** – onder-na-bo  
**brainstem** – breinstam  
**brainstorming** – dinkskrum, ideeberaad  
**Broaden-and-build theory** – Verbreed-en-bouteorie **burnout** – uitbranding

## C

**capability/capacity** – bekwaamheid, vaardigheid, vermoë **cardinal trait** – kardinale trek  
**cardiovascular** – kardiovaskulêr, hart-, bloedvatverwant **career anchor** – loopbaananker  
**career development** – loopbaanontwikkeling  
**career indecision** – loopbaanonsekerheid, -besluiteloosheid **career maturity** – beroeps-, loopbaanrypheid **career psychology** – loopbaansielkunde  
**career transitions/stages** – loopbaanoorgange/-fases **carpal tunnel syndrome** – karpale tonnelsindroom **carry-over behaviour** – oordraggedrag  
**catatonic schizophrenia** – katatoniese skisofrenie **causality** – oorsaaklikheid  
**cell body** – sellligaaam  
**central attitude** – sentrale houding  
**central nervous system** – sentrale senuweestelsel **central tendency** – sentrale geneigdheid  
**central trait** – sentrale trek  
**central value** – sentrale waarde  
**centralisation** – sentralisasie  
**cerebellum** – serebellum, keinharsings

**cerebellum** – serebellum, kleinbrein  
**cerebral cortex** – serebrale korteks, breinskors **cerebral hemispheres** – serebrale hemisfere **cerebrum** – serebrum, grootbrein  
**character/virtues** – inbors /deugde  
**charisma** – charisma, persoonlike impak  
**checklist** – merklys, kontrolelys  
**choice corollary** – keuseafleiding, -stelling **chromosomes** – chromosome, gene-bevattende strukture **chronic** – chronies, langdurige  
**chronological age** – chronologiese, ouderdom, tydsouderdom **chunking** – stuks-, broksgewys  
**circular interaction** – sirkulêre interaksie **circumplex** – omliggend, sirkelvormig  
**circumspection, pre-emption, control (C-P-C) cycle** – omsigtige, voorafkontrole siklus **classical behaviourism** – klassieke (oorspronklike) behaviourisme classical conditioning-klassieke konndisionering (S-R principle)  
**client-centred psychotherapy** – kliëntgesentreerde psigoterapie **clinical picture** – kliniese beeld, siekteprofiel **clinical psychology** – kliniese sielkunde  
**closure** – sluiting  
**coaching groups** – afrigtingsgroepe  
**coalition** – koalisie, bondgenootskap  
**cocktail party syndrome** – skemerkelkparty-sindroom **coercive power** – magsafdwinging, oorredingsmag **cognition** – kognitief, intellektueel  
**cognitive ability** – kognitiewe vermoë  
**cognitive appraisal** – kognitiewe evaluering **cognitive broadening** – kognitiewe verbreeding **cognitive complexity** – kognitiewe gekompliseerdheid **cognitive control** – kognitiewe kontrole  
**cognitive disorder** – kognitiewe versteuring **cognitive disregard** – kognitiewe uitsluiting **cognitive dissonance** – kognitiewe dissonansie **cognitive learning** – kognitiewe leer  
**cognitive map** – kognitiewe kaart, denkpatroon **cognitive modifiability** – kognitiewe veranderlikheid **cognitive psychology** – kognitiewe sielkunde **cognitive representations** – kognitiewe voorstellings **cognitive style** – kognitiewe styl  
**coherence** – koherensie, samehang  
**cohesion** – kohesie, samehorigheid  
**collective responsibility** – kollektiewe, gesamentlike verantwoordelikheid

**collective unconscious** – kollektiewe onbewuste **collectivism** –  
 kollektiwisme, groeporiëntasie **colour vision** – kleurwaarneming  
**combat exhaustion** – gevegsuitputting  
**command group** – instruksie-, bevelsgroep  
**command level** – bevels-of betekenisvlak  
**common trait** – algemene trek  
**commonality** – eendersheid  
**commonality corollary** – eendersheidsafleiding **community psychology** –  
 gemeenskapsielkunde **compensation** – kompensering, vergoeding  
**competence** – bevoegdheid, bekwaamheid  
**complementarity** – aanvullend  
**compliance** – insiklikheid, toegeeflikheid **computer-assisted assessment** –  
 rekenaar-ondersteunde evaluering **conceptual grouping** – konseptuele  
 groepering **conditioned reflex** – gekondisioneerde refleks **conditioning** –  
 kondisionering  
**conflict management** – konflikbestuur  
**conformity status** – konformiteitstatus  
**congenital** – kongenitaal, oorgeërfde  
**congruence** – kongruensie, ooreenstemmend  
**connectivism** – konnektiwisme, onderlinge skakeling **connotation** – konnotasie,  
 dieperliggende betekenis **conscientiousness** – konsensieusheid, nougesetheid  
**consciousness** – bewussyn  
**consensus** – konsensus, eenparigheid  
**Conservation of Resources Model** – Bronnebewaringsmodel **constellatory**  
**construct** – verbandhoudende afleiding **construct** – konstruk, begrip  
**construction corollary** – kontruksie, bouende afleiding **constructive**  
**alternativism** – konstruktiewe alternativisme, veranderlikheid  
**constructivistic** – konstruktivisties  
**consulting psychology** – konsultasiesielkunde **consumer psychology** –  
 verbruikersielkunde  
**contagious violence** – aansteeklike geweld **containment** – inhou, insluiting  
**context** – konteks, binne verband  
**contextual intelligence** – verbandhoudende, kontekstuele intelligensie  
**contingency** – gebeurlikheid, moontlikheid  
**continuous variable** – kontinue veranderlike **continuum** – kontinuum  
**convenience range** – gerieflikheidsomvang  
**convergence** – konvergering, samekoms, samevoeging **convergent thinking** –

konvergente denke  
**conversion disorders** – konversieversteurings **co-operative economics** –  
 samewerkende ekonomie **coping skills** – hanteringsvaardighede  
**core constructs** – kernkonstrukte  
**core pathology** – kernpatologie **corollary** – propositie, afleiding, stelling  
**corporate philosophy** – korporatiewe, bestuursfilosofie **corrective actions** –  
 korrektiewe-, regstellende handeling **correlation** – korrelasie, verwantskap  
**correlation coefficient** – korrelasiekoëffisiënt **cosmology** – kosmologie,  
 wêreldkunde  
**counselling** – voorligting, berading  
**creative self** – kreatiewe self  
**creative values** – kreatiewe waardes  
**credibility** – geloofwaardigheid  
**criterion** – kriterium, standaard  
**critical periods** – kritieke periodes  
**cross-cultural psychology** – kruis-kulturele sielkunde **crystallisation** –  
 kristallisasie, opklaring **crystallized intelligence** – gekristaliseerde  
 intelligensie **cultural diversity** – kulturele diversiteit, verskillendheid  
**culture-bound syndromes** – kultuurgebonde sindrome **cumulative stress** –  
 kumulatiewe-, aanhoudende stres **cyclothymic depressive** – siklotimiese,  
 veranderende depressie

## D

**death instinct (thanatos)** – doodsinstink (tanatos) **decentralisation** –  
 desentralisasie  
**decision frame** – besluitnemingsraamwerk  
**declaritive memory** – verklarende geheue  
**decompensation** – dekompensasie, disintegrasie **deconstructionism** –  
 dekonstruktivisme  
**deduction** – deduksie, spesifieke afleiding **defence mechanism** –  
 verdedigingsmeganisme  
**deficiency need** – gebreksbehoefte  
**deindividuation** – deïndividuasie, identiteitsverlies **delegation** – delegering,  
 afwenteling  
**delusion** – delusie, waandenkbeeld  
**dementia** – demensie, verwardheid  
**dendrite** – dendriete, dendron, neuronvertakkings **denial** – ontkenning

**denotative meaning** – denotatiewe, saaklike betekenis **deoxyribonucleic acid (DNA)** – deoksiribonukleïensuur (DNS) **departmentalisation** – departementalisasie

**dependent personality** – afhanklike persoonlikheid **dependent variable** – afhanklike veranderlike **depersonalisation** – depersonalisasie

**depressive disorder** – depressiewe versteuring **deprivation** – deprivasie, ontneming

**depth psychology** – dieptesielkunde

**descriptive statistics** – beskrywende statistiek **desensitised** – desensitiseer, gevoeligheidsafname **design coherence** – ontwerp samehang

**deterministic** – determinerend, bepalend

**developed cognitive ability** – ontwikkelde kognitiewe vermoë **developmental tasks** – ontwikkelingstake

**deviant behaviour** – afwykende gedrag **devil's advocate** – duiwelsadvokaat

**dexterity** – handigheid, regshandigheid

**diagnosis** – diagnose, probleemanalise

**Diagnostic Statistical Manual (DSM)** – Diagnostiese Statistiese Handleiding

**dichotomy** – digotomie, tweekledigheid

**dichotomy corollary** – tweekledigheidsafleiding **differential reinforcement** – differensiële versterking **differentiation** – differensiasie, onderskeiding

**disciplinary framework** – dissiplinêre raamwerk **discourse** – diskoers, gesprek

**discrete variable** – diskrete, vaste veranderlike **discretionary coalitions** – diskresionêre koalisies **discriminant learning** – onderskeidende leer **disease-prone personality** – siektegeneigde persoonlikheid **disengagement** – losmaking

**disequilibrium** – disekwilibrium, onewewigtigheid **disorder** – versteuring

**displacement** – verplasing

**disposition** – disposisie, neiging

**dissimilarity** – verskillendheid

**dissociative disorder** – disassosiatiewe versteuring **dissociative fugue** – dissosiatiewe fuga, verwarring **dissonance** – dissonansie, onversoenbaarheid

**distribution of practice** – oefeningverspreiding **distributions** – verspreidings

**divergent thinking** – divergente, buigsame denke **diversity** – diversiteit, verskeidenheid

**diversity management** – diversiteits-, verskeidenheids-, verskillebestuur

**dizygotic** – disigoties (nie-identities)  
**drive reduction** – dryfveervermindering  
**drives** – dryfvere, behoeftes  
**dyad** – diade, paar  
**dynamic muscular activity** – dinamiese spieraktiwiteit **dynamic trait** –  
dinamiese trek  
**dynamics** – dinamiek (ontwikkeling, motivering) **dysthymic depression** –  
distimiese depressie

## E

**eudaimonia** – the good life, happiness  
**eccentric** – eksentries, snaaks  
**eclectic approach** – eklektiese, geïntegreerde benadering **ecosystemic** –  
ekosistemies  
**educational psychology** – opvoedkundige sielkunde **efficiency** –  
doeltreffendheid, bekwaamheid **ego** – ego, bewustelike self  
**egocentric bias** – egosentriese vooroordeel **ego defense mechanisms** – ego  
verdedigingsmeganismes **egodystonic** – ego-distonies, ego-onaanvaarbaar  
**ego-identity** – ego-identiteit, persoonlike identiteit **eidetic reduction** –  
eidetiese, detail vermindering van ervarings **Eigenwelt** – eiewêreld  
**emotional intelligence** – emosionele intelligensie **empathy** – empatie,  
eenvoeling  
**empirical** – empiries, feitlik bewese  
**employee-and organisational well-being** – wernemer-en  
organisasiegesondheid **Employee Assistance Programme** –  
werknemerondersteuningsprogram **employee-centred** –  
werknemergesentreerd  
**employment relations** – werknemingsverhouding **encoding** – enkodering,  
verwerking  
**encounter group** – ontmoetingsgroep  
**endocrine system** – endokriene, inwendige afskeidingsstelsel **endogenous**  
**depression** – aangebore/erflike depressie **enduring belief** – blywende  
oortuiging  
**engagement** – intensbetrokkenheid  
**entrepreneurial** – entrepreneursgerig, ondernemend **enzymes** – ensieme  
**epigenetic principle** – epigenetiese beginsel epistemological stances–  
epistemologiese, kennisbasis uitgangspunte

**episodic memory** – episodiese, gebeure geheue **equilibrium** – ewilbrium, balans  
**equitable rewards** – billike, vergelykbare belonings **equity** – billikheid  
**equivocality** – dubbelsinningheid  
**ergonomics** – ergonomika. mens-masjien interaksie **escalation commitment** – toewydingseskalasie **esteem needs** – agtingsbehoefte  
**ethical principles/codes** – etiese beginsels/kodes **ethnocentric approach** – etnosentriese benadering **ethos** – etos, gebruike  
**etiology** – oorsaaklikheid  
**eustress** – positief-ervaarde stres  
**evolution** – evolusie, ontwikkeling, veranderingsleer **evolutionary psychology** – evolusiesielkunde **exertion of power** – magsuitoefening  
**existential living** – eksistensiële lewe, ten volle lewend **existentialism** – eksistensialisme  
**excitatory theory** – opwekkingsteorie  
**expectancy theory** – verwagtingsteorie  
**experience corollary** – ervaringsafleiding  
**experiential learning** – ervaringsleer  
**experiential values** – ervaringswaardes  
**explanatory** – verklarend  
**explicit values** – eksplisiete, openlike waardes **exploitive orientation** – ondersoekende instelling **external activators** – eksterne aktiveerders  
**external stressor** – eksterne stressor, spanningsfaktor **extinction** – uitwissing  
**extrasensory perception (ESP, psi)** – ekstrasensoriese, buitesintuiglike waarneming **extraversion** – ekstraversie, na-buitergerigheid

## F

**face validity** – gesigsgeldigheid  
**facilitation** – fasilitering, bevordering  
**factitious disorders** – denkbeeldige, nagebootste versteurings **factor analysis** – faktoranalise  
**fairness** – regverdigheid, billikheid  
**false uniqueness effect** – vals, gewaande uniekheidseffek **faulty learning** – foutiewe leer  
**feedback-control system** – terugvoerkontrolesisteem **femininity** – vroulikheid  
**fight/flight reaction** – veg/vlug reaksie  
**figure-ground** – figuur-agtergrond

**filtering** – filtreer, selektering  
**five-factor model** – vyffaktormodel **fixation** – fiksasie  
**fixedness** – vasgesteldheid, rigiedheid  
**fixed-ratio schedule** – vaste ratio-, verhoudingskedule **floundering** – worstel  
**flourishing** – floreer  
**flow** – vloei/proseservaring  
**formal group** – formele groep  
**formal leadership** – formele leierskap  
**formal status** – formele (toegekende) status **formative evaluation** – vormende-,  
 prosesevaluering **forming** – vorming  
**form perception** – vormwaarneming  
**fortigenesis** – fortigenese, gesondheidsbronne **fragmentation corollary** –  
 verdeelde, opponeringsafleidings **frame of reference** – verwysingsraamwerk  
**framing** – begrensing  
**free association** – vrye assosiasie, -gedagtevloei **free will** – eie, vrye wil,  
 selfbesluitneming **frequency** – frekwensie, voorkomshoeveelheid **Freudian**  
**slip** – Freudiaanse verspreking  
**frictional conflict** – wrywingskonflik  
**friendship group** – vriendskapsgroep  
**frontal cortex** – frontale korteks (lob)  
**frustration-aggression hypothesis** – frustrasie-aggressie hipotese **fully/optimal**  
**functioning person** – vollediig-funksionerende persoon/volwassenheid  
**functional autonomy** – funksionele outonomie **functional fixedness** –  
 funksionele rigiditeit **functional specification** – funksionele/taakspesifikasie  
**Functionalism** – Funksionalisme  
**fundamental lexical hypothesis** – basiese woordkennishipotese **fundamental**  
**postulate** – grondliggende uitgangspunt **future state visioning** –  
 toekomsstandvisualisering

## G

**gender identity** – geslagsrolidentiteit  
**gender/sex differences** – geslagsverskille  
**genes** – gene, selerflikheidsdraende DNS  
**general resistance resource** – algemene weerstandbron **general traits** –  
 algemene trekke  
**general well-being** – algemene welsyn **generalisation** – veralgemening  
**generalised anxiety disorder** – veralgemeende angsversteuring **generalised**

**resistance sources** – algemene weerstandsbronne **generating** – generering, skepping  
**generativity** – generatieweet, selfvoortbring **genetic screening** – genetiese sifting, -evaluering **genetics** – genetica, oorerwing  
**genotype** – genotipe, totale genetiese samestelling **germ cell** – moedersel, kiemsel  
**gestalt** – gestalt, geheel  
**Gestalt Psychology** – Gestaltsielkunde  
glial cells – gliaselle  
**globalisation** – globalisasie, groterwording **goal achievement** – doelbereiking  
**goal-setting** – doelstelling  
**gradient** – gradiënt, tempo van daling of styging **group cohesion** – groepkohesie, -samehorigheid **group demography** – groepdemografie  
**group dynamics** – groepsdinamika  
**group identity** – groepsidentiteit  
**group processes** – groepprosesse  
**group shift** – groepdenkeverskuiwing **group structure** – groepstruktuur  
**group think** – groepdink  
**growth group** – groeigroep  
**growth needs** – groei-, ontwikkelingsbehoefte

## H

**habituation** – gewoontevorming  
**hallucination** – hallusinasie, onrealistiese waarneming/voorstelling **halo-effect** – stralekrans effek  
**harassment** – teistering  
hardiness-gehardheid  
**hassle** – hindernis, steurnis  
**Hawthorne results** – Hawthorne bevindinge  
**hebephrenic/disorganised schizophrenia** – hebefreniese/gedisorganiseerde skisofrenie **hemispheres** – hemisphere, breinverdelings  
**Health Professions Council of SA (HPCSA)** – Raad vir Gesondheidsberoep van SA (RGBSA) **heredity** – oorerflikheid  
**heterogeneous** – heterogenies, gemengd  
**heterostasis** – heterostase (groei)  
**heuristics** – heuristiek, oplossingsmoontlikhede **hierarchy** – hierargie, volgorde  
**higher-order conditioning** – hoëordekondisionering, stimulus-

responsuitbreiding **hindsight** – nabetrugting  
**hypothesis** – hipotese, tentatiewe veronderstelling **histrionic** – histrionies, histeries  
**HIV/AIDS** – HIV/VIGS  
**hoarding orientation** – versamelinstelling  
**holistic perspective** – holistiese, geheelperspektief **homeostasis** – homeostase, balans  
**horizontal differentiation** – horisontale differensiasie **hostile attributional bias** – vyandiggesinde vooroordeel **Humanism** – Humanisme  
human being stances -menswees uitgangspunte  
**human-relations approach** – menseverhoudings-benadering **human psyche stances** – menslike psige uitgangspunte **human-resources management** – menslike hulpbronbestuur **human work stances** – menslike werkuitgangspunte **hygiene factors** – higiëne faktore, demotiveerders  
**hypochondria** – hypochondries, siektepreokkupasie **hypothalamus** – hipotalamus  
**hypothetico-deductive model** – hipoteties-afleidings-model **hysteria** – histerie

## I

**ideal self** – ideale self  
**identical twins** – Identiese tweelinge  
**identity diffusion/confusion** – identiteitsverwarring **ideological stances/framework** – ideologiese uitgangspunte/raamwerk **independent variable** – onafhanklike veranderlike **id—impulses** – id-impulse, -instinkte  
**idiographic** – ideografies, individugesentreerdheid **idiosyncrasy** – idiosinkrasie, eienaardigheid **illumination** – opklaring, verheldering  
**illusions** – illusies, waarnemingsbedrog  
**images** – denkbeelde  
**imitation** – nabootsing  
**immune system** – immuniteit-, weerstandsissteeem **implicit values** – implisiete waardes  
**implied movement** – geïmpliseerde, skynbare beweging **impression formation** – indrukvorming  
**impulse-control disorder** – impulskontrole versteuring **in-basket technique** – in-mandjie tegniek  
**incentives** – aansporings  
**incongruence** – inkongruensie, teenstrydigheid **incubation** – inkubasie,

uitbroeing  
**incumbent** – ampsdraer, ampsbekleder  
**independent variable** – onafhanklike veranderlike **indigenous psychology** –  
 inheemse sielkunde **individual differences** – individuele verskille  
**individualism** – individualisme  
**individuality corollary** – verskillendheidsafleiding **individuation** –  
 individuasie, geheelwording **induced movement** – geïnduseerde,  
 geskepte)beweging **induction** – induksie, algemene afleiding  
**Industrial & Organizational Psychology (I-O psychology)** – Bedryf-&  
 Organisasiesielkunde (B-O sielkunde) **industry** – arbeidsaamheid,  
 produktiwiteitskwaliteite **inertia** – traagheid  
**inferences** – gevolgtrekkings  
**inferential statistics** – inferensiële, afleidende statistiek **information**  
**processing** – inligtingverwerking **informed consent** – ingeligte toestemming  
**inhibition** – inhibisie, binne hou  
**innervated** – gespannendheid, aksiegerig  
**innovation** – innovasie, vernuwing  
**inputs** – insette  
**instrumental** – instrumenteel, dienstig  
**instrumentality** – instrumentaliteit, nuttigheidswaarde **intellectualisation** –  
 intellektualisering  
**intelligence quotient (IQ)** – intelligensiekwosient (IK) **intentions** – intensies,  
 neigings  
**interactionism** – interaksionisme, wisselwerkingsteorie **interdependence** –  
 interafhanklikheid  
**interest** – belangstelling, voorkeur  
**interest group** – belangegroep  
**internal activators** – interne aktiveerders **internal valuing** – intrinsieke  
 waardebeoordeling **internal locus of control** – interne lokus van beheer  
**internalised speech** – geïnternaliseerde spraak **interpersonal** – inter-,  
 tussenpersoonlik  
**interpretative** – interpreterende  
**interval** – interval, tussenperiode  
**intervening variable** – tussenkomende veranderlike **intervension** – intervensie,  
 ingryping  
**interviewing** – onderhoudvoering  
**intrapersonal** – intra-, binnepersoonlik

**intrapsychic** – intra-psigies

**intrinsic values** – intrinsieke, inherente waardes **introspection** – introspeksie, selfbeskouing **introversion** – introversie, binnegerig

**intuitive** – intuïtief, aanvoelend

**IOP credo/belief** – BO sielkunde credo/geloof **I-O Psychology structural**

**blueprint** – B-O – sielkundige bloudruk **IOP-relationships** – B-O sielkunde verwantskappe **IOP roles** – B-O sielkunde rolle

**ions** –ione, elektriese gelaaide molekule

**irrationality** – irrasioneel, non-sensical

## **J**

**Job Characteristics Model** – Werkeienskappemodel **job content** – werkinhoud

**job description** – posbeskrywing **job design** – werkontwerp

**job dissatisfaction** – werkontevredenheid

**job enlargement** – werkverruiming

**job enrichment** – werkverryking

**job involvement** – werkbetrokkenheid

**job rotation** – werkrotasie

**job satisfaction** – werktevredenheid

**job-centred** – taakgesentreerd

**just-noticeable difference (JND)** – net-merkbare (waarneembare) verskil (NMV)

## **K**

**knowing** – kennisverkryging

**knowledge objects** – kennisbronne, -onderwerpe **kurtosis** – kurtose, skerpheid, afplattung

## **L**

**labour relations** – arbeidsverhoudinge

**lactic acid** – melksuur

**laissez-faire** – laat-maar-gaan houding

**languishing** – wegkwyn

**latent learning** – latente leer

**Law of Effect** – Wet van Effek

**Law of Exercise** – Wet van Oefening

**leadership** – leierskap

**learning/acquire** – leer, verwerf

**learned helplessness** – aangeleerde hulpeloosheid **learned resourcefulness** – aangeleerde vindingrykheid **learning organisation** – lerende organisasie  
**learning potential** – leerpotensiaal  
**legitimate power** – wettige, toegekende mag **leniency effect** – toegeeflikheidseffek  
**lexical approach** – leksikale benadering, erkende woorde **libido** – libido, seksuele energie  
**life staisfaction** – lewenstevredenheid  
**life instinct (eros)** – lewensinstink (eros) **life line analysis** – lewenslynontleding  
**life span** – lewensverloop **limbic system** – limbiese stelsel  
**linear** – lineêr, reglynig  
**linguistic relativity** – taalkundige relatiwiteit **locus of causality** – lokus van oorsaaklikheid **locus of control** – lokus, plek van beheer, kontrole  
**longitudinal consistency** – langdurige konstantheid

## M

**Machiavellianism** – Machiavellsme, boos, arglistigheid **macro-system** – makrostelsel  
**malingering** – voorwendsel, siektevoordoening **manic-depressive** – manies-depressief  
**manifest needs** – gemanifesteerde behoeftes **margin of error** – foutgrens  
**marketing orientation** – anderbevredeigende instelling **masculinity** – manlikheid  
**mastery** – bemeestering  
**material self** – materiële self  
**maturation** – ryping, volwasseywording  
**maturity** – rypheid, gereedheid  
**maximum performance** – maksimale prestasie  
**mean ( $\bar{X}$ )** – rekenkundige gemiddelde ( $\bar{X}$ ) **meaning systems/structures** – betekenis-sisteme (bv. konstrukte) **meaningful wholes** – betekenisvolle gehele  
**measurement error** – metingsfout  
**mechanistic** – meganisties  
**median** – mediaan, middelpunt  
**medulla oblongata** – medulla oblongata, verlengde rugmurg **meiosis** – meiose, chromosoomverdeling  
**mental/ psychological disorder** – geestes/ sielkundige versteuring **mental**

**abilities** – verstandsvermoëns  
**mental age** – verstandsouderdom  
**mental agility** – verstandelike buigsaamheid **mental alertness** – verstandelike helderheid **mental demands** – verstandelike eise **mental imagery** – denkkebeeld, verbeelding **mental representations** – geestesvoorstellings **mental retardation** – verstandelike vertraging **mental set** – geestelike instelling, denkwyse **mentally challenging work** – psigies-uitdagende werk **meso-system** – mesostelsel (meso = middel)  
**meta-analysis** – omvattende/oorsigtelike ontleding **metacognition** – metadenke, reflektering oor denke **metamemory** – geheuemonitering, -reflektering **metaneeds** – meta-, oorkoepelende behoeftes **metaphysics** – metafisika, realiteitstudie  
**metapsychology** – metasielkunde  
**meta-theoretical landscape** – oorsigtelike teoretiese landskap **microsystem** – mikrostelsel  
**mid-career crisis** – middelloopbaankrisis  
**midlife crisis** – middeljarekrisis  
**mind** – verstand, psige  
**mirage** – spieëlbeeld  
**misapplied constancy** – misrekenende konstantheid **mitosis** – mitose, seldeling **Mitwelt** – medemenswêreld  
**mnemonics** – mnemoniek, geheue-assosiasie, geheue -organisering **mode** – modus, mees frekwente waarde  
**modelling** – modellering  
**moderating** – modererende  
**modulation** – aanpassing, buiging  
**modulation corollary** – aanpassingsafleiding **monitoring** – monitering, kontrolering  
**monocular** – monokulêr, eenoogwaarneming  
**monophobia** – monofobie, alleenweesfobie  
**monozygotic** – monosigoties, identies, bv. tweeling **moral** – morele, moraal  
**morality principle** – moraliteitsbeginsel  
**moratorium** – beperking, uitstel  
**motion parallax** – bewegingsparallaks  
**motivation** – motivering, aansporing  
**motivators** – motiveerders  
**motor (efferent) neurons** – motoriese, efferente neurone **multimodal** –

multimodale, meervoudig  
**multimodal behaviour therapy** – multimodale gedragsterapie **multiple determination** – veelvoudige bepaling **multivariate statistics** – meerveranderlike statistiek **muscle system** – spiersisteem  
**myelin** – miëlien, vetomringde geleiding

## N

**narcissism** – narsisme, sieklike selfliefde **narrative analysis** – gespreksontleding  
**nature** – (menslike) natuur, aangebore  
**needs analysis** – behoefteontleding  
**negative affect** – negatiewe affek, emosie **negative reinforcement** – negatiewe versterking **Neo-Behaviourism** – Neo-Behaviourisme **nervous system** – senuweestelsel  
**neuroglial cell** – neurogliasel  
**neuron** – neuron, senuweesel  
**neuroses** – neurose, angsgebaseerde versteurings **neuro-psychological** – neuro-sielkundig  
**neurotic imposter phenomenon** – neurotiese indringer/voordoenverskynsel  
**neurotransmitters** – neuro-, chemiese impulsgeleiers **nodes of Ranvier** – knope van Ranvier (akson-vernouings) **nominal** – nominaal (bv. metingskaal)  
**nomothetic** – nomoteties, algemeen, groepgebaseerd **non-conforming** – nie-konformerend  
**non-consciousness** – nie-bewustheid  
**normal distribution** – normaalverspreiding  
**normative** – normatiewe, volgens verwagting **norming** – normbepaling  
**norms** – norme, reels  
**nurture (environmental)** – omgewingsbepaald

## O

**object relations theory** – voorwerpverhoudinge – teorie **observable behaviour** – waarneembare gedrag **observation** – observasie, waarneming  
**observational learning** – waarnemingsleer  
**obsessive-compulsive** – obsessief-kompulsief **obstructionism** – verhindering  
**occipital cortex** – oksipitale korteks  
**occupational mental health** – beroepsgeestesgesondheid **Oedipal conflict** – Oëdipale konflik **oneness** – eenwees  
**ontogenesis** – ontogenese, oorsprong en ontwikkeling **ontological stances** –

ontologiese, bestaanswese uitgaangspunte **openness to experience** – oopheid vir ervaring **open-systems approach** – oop-stelsel/sisteem benadering **operant conditioning** – operante kondisionering (SOR) **operational fatigue** – operasionele vermoeidheid **opinions** – opinies, beskouings **optimal dissimilarity** – optimale, gewenste verskil **oral** – orale **order effect** – volgorde-effek **ordinal** – ordinaal **ordinate (y-axis)** – ordinaat (y-as) **organisation corollary** – verwantheidsafleiding **organisational citizenship behaviour** – organisasie-burgerskapgedrag **organisational commitment** – organisasietoewyding, -verbondenheid **organisational culture** – organisasiekultuur **organisational diagnosis** – organisasiediagnose **organisational health** – organisasiegesondheid **organisational hierarchy** – organisasiehierargie **organisational integrity** – organisasie integriteit **organisational psychology** – organisasiesielkunde **organisational rituals** – organisasierituele **organisational trust** – organisasievertroue **organismic survival values** – organismiese oorlewingswaardes **outcomes** – uitkomstes, gevolge **outputs** – uitsette **over-commitment** – oorbetrokkenheid **overcompensation** – oorkompensasie **oversight** – oorsig **ovum** – ovum, eiersel

## P

**pairing** – afparing **panic disorder** – paniekversteuring **paradigm** – paradigma, denkraamwerk **paranoia** – paranoia, vervolgingswaansin **paranoid schizophrenia** – paranoïse skisofrenie **paranoid-schizoid position** – paranoïese-skisoiëde posisie **paraphilia** – parafilie (tipe seksuele afwykings) **parasympathetic nervous system** – parasimpatiese senuweestelsel **parental investment theory** – ouerbeleggingsteorie **parenthood probability theory** – ouerwaarskynlikheidsteorie **parietal cortex** – pariëtale korteks **part learning** – deelleer **part object** – gedeeltelike voorwerp

**Path-Goal Model** – Roete-Doelwit Model **pathogenic** – patogenies, siekteveroorsakend **pathological intoxication** – patologiese intoksikasie, bedwelming **peak experience** – piekervaring, hoogtepunt **peak performance** – topprestasie

**peer group** – portuurgroep **peers** – gelykes

**percept** – waarneming, konstruksie

**perception** – interpreting perceived stimuli **perceptual distortion** – perseptuele distorsie **performance ethos** – prestasie-etos, -gedragkode **peripheral attitudes** – perifêre, randgebied houdinge **peripheral constructs** – perifêre konstrunkte **peripheral nervous system** – perifêre senuweestelsel **perseverative functional autonomy** – perseverende, volgehoue funksionele outonomie **persona** – persona, persoonlikheid

**personality** – persoonlikheid

**personal constructs** – persoonlike konstrunkte **personality disorder** – persoonlikheidsversteuring **personal disposition** – persoonlike disposisie/trek **personal hardiness** – persoonlike gehardheid **personal trait** – persoonlike trek

**personalise** – verpersoonlik

**person-centred** – persoongesentreerd

**person-environment fit** – persoon-omgewingpassing **personhood** – persoonheid (persoonlikheid)

**Personnel psychology** – Personeelsielkunde **personnel turnover** – personeelomset

**personologist** – personoloog/persoonlikheidskundige **personology** – personologie, persoonlikheidstudie **person-situation interaction** – persoon-situasie interaksie **phallic** – fallies (met psigo-seksuele te doen) **phantom sensations** – spooksensasies, verskyningsensasies **phenomenological field** – fenomenologiese/ervaringsveld **phenomenology** – fenomenologie, ervaringsleer **phenomenon** – fenomeen, verskynsel

**phenotype** – fenotipe, waarneembare erflikheidseienskappe **phi-phenomenon** – phi-verskynsel, stroboskopiese effek, skynbare beweging **physical attractiveness halo effect** – fisieke aantreklikheids-halo-effek **physiological arousal** – fisiologiese opwekking **physiological needs** – fisiologiese behoeftes **phobia** – fobie

**pituitary gland** – pituitêre klier

**plateauing** – platovorming

**pleasure principle** – plesierbeginsel

**pointedness** – gepuntheid

**polygenetic heredity** – poligene, veelvoudige erflikheid **poligraph** – poligraaf, leuenverklikker

**position power** – posisiemag

**positive emotionality** – positiewe emosionaliteit **Positive Psychology** – Positiewe Sielkunde

**positive regard** – positiewe agting

**positive reinforcement** – positiewe versterking **Positivism** – Positivisme, waarneembaarheidstudie **Postmodernism** – Postmodernisme

**post-partum depression** – post-partum (na-) depressie **post-traumatic stress** – post- (na-) traumatiese stres **power distance** – magsafstand

**power inhibition** – magsinperking

**pragmatism** – pragmatisme, verpraktisering

**pre-conscious** – voorbewuste

**predictability** – voorspelbaarheid

**predictor variables** – voorspellerveranderlikes **predisposition** – predisposisie, voorafmoontlikheid **pre-emptive** – vooruitbepaalde

**pre-emptive construct** – vooruitbepaalde konstruk **prejudice** – vooroordeel

**presenteeism** – aanwesigisme, skynaanwesigheid **pressure** – druk, spanning, stres

**presuppositions** – voorveronderstellings

**preverbal constructs** – voorverbale konstrukte **primacy effect** – voorrangeffek

**primary abilities** – primêre vermoëns

**proactive inhibition** – voorafgaande, pro-aktiewe inhibering **probability** – waarskynlikheid

**problem-focused coping** – probleemgerigte hantering **process schizophrenia** – prosesskisofrenie **procrastination** – uitstellery

**productive thinking** – produktiewe denke

**progressive relaxation** – progressiewe ontspanning **projection** – projeksie, oorplasing

**proliferation** – proliferasie, indringing

**propioceptive senses** – sintuie vir liggaamsoriëntasie **propositional construct** – voorstellende konstruk **proprie functional autonomy** – propriele funksionele outonomie **proprie striving** – propriele, selfstrewende **proprium** – proprium, self

**prosocial** – prososiaal

**prospective memory** – beplanningsgeheue, toekomsgeheue **proximity** –

nabyheid

**Psychoanalysis** – Psigoanalise

Psychoanalytic school of thought– Psigoanalitiese denkskool

**psychodiagnosis** – psigodiagnose

**psychodynamics** – psigodinamika

**psycholinguistics** – psigolinguistiek,, sielkunde van taal **Psychology** –  
Sielkunde, Psigologie

**Psychologist** – Sielkundige

**psychological act** – sielkundige aksie

**psychological contract** – sielkundige kontrak **psychological optimality** –  
sielkundige optimaliteit **psychological well-being/health** – sielkundige  
welsyn, -gesondheid **psychometrics** – psigometrika, sielkundige meting

**Psychometrist** – psigometris

**psychopathology** – psigopatologie, abnormale gedrag **psychopathy** –  
psigopatie, sosiopatie

**psycho-physiological** – psigo-fisiologies

**psychophysical** – psigofisies

**psychophysics** – psigofisika,

**psych-sexual** – psigo-seksuele

**psychosocial crisis** – psigososiale krisis

**psychosocial evolution** – psigososiale evolusie **psychoticism** – psigotisisme

**Psychological Society of South Africa (PsySSA)** – Sielkundige Vereniging van  
SA (SVSA) **Punctuated-equilibrium model** – Gepunktueerde  
ekwilibriummodel **purposiveness** – doelgerigtheid

**pyromania** – piromanie, vuurmanie

**pyrophobia** – pirofobie, vrees vir vuur

## Q

**Q-sort technique** – Q-sorteringstegniek

**qualitative** – kwalitatief

**quantitative** – kwantitatief

## R

**radical behaviourism** – radikale (klassieke) behaviourisme **range corollary** –  
omvang-, reikwydte afleiding **range of convenience** – gerieflikheidsomvang

**rating effects/errors** – beoordelingseffekte/foute **ratio** – ratio, verhouding

**rational emotive therapy** – rasioneel-emosionele terapie **rationalisation** –  
rasionalisering

**raw data matrix** – roudataverspreidingsdiagram **raw scores** – routellings, onverwerkte tellings **reaction-formation** – reaksie-formasie, teenoorgestelde reaksie **reactive schizophrenia** – reaktiewe skisofrenie **readiness** – gereedheid  
**real self** – ware self  
**reality principle** – realiteitsbeginsel  
**receptive orientation** – ontvanklike instelling **receptor neurons** – reseptor-, ontvangsneurone **recessiveness** – resessiwiteit  
**reciprocity** – wederkerigheid  
**reconstruction of experience** – ervaringsrekonstruksie **reductionism** – reduksionisme, vermindering **referent power** – referente, verwysingsmag  
**reframing** – herdefiniëring  
**refreezing** – herbevriesing  
**regression** – regressie, terugkeer  
**regression analysis** – regressie-ontleding  
reinforcement schedules– versterkingskedules  
**relational schema** – verhoudingskema  
**relationship-oriented** – verhoudingsgeoriënteerd **reliability** – betroubaarheid, konstantheid **religious** – religieus, godsdienstig  
**remedial** – remediërend  
**reorganisation of experience** – ervaringsherorganisasie **repertoire** – repertoire, versameling  
**repetitive-strain injuries** – herhalende ooreisingsbeserings **report level** – rapporteringsvlak (denotasie, saaklike betekenis) **repression** – repressie, verdringing  
**repulsion hypothesis** – afstootlikheidshipotese **research design** – navorsingsontwerp **research methodology** – navorsingsmetodiek  
**research variables** – navorsingsveranderlikes, konsepte **resiliency** – aanpasbaarheid, herstel-, weerstandsvermoë **recessive genes** – resessiewe gene  
**resources** – hulpbronne  
**respondent behaviour** – respondente gedrag **response set** – responsieneiging, beantwoording-, reaksieneiging **response style** – reaksiestyl  
**retention** – onthou, retensie  
**reticular activation system (RAS)** – retikulêre aktiveringstelsel (RAS) **retinal disparity** – retinale dispariteit, ongelykheid **retrieval** – herwinning  
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