Future of Business and Finance

Martin Kupiek

Digital Leadership, Agile Change and the Emotional Organization

Emotion as a Success Factor for Digital Transformation Projects

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Preface to the English Edition

Change and transformation projects are usually perceived as purely technical problems. But with this constrained view, even waterproof project plans are destined to failure. For executives, this book serves as an innovative practical guideline for sustainable project success, because emotions in teams and organizational units contribute significantly to the digital transformation success of any company.

This comprehensive practical guide shows a direction of how to handle emotions the right way—in teams, organizational units, and corporations. Digitization brings about not only technical changes into the scene. Fundamental disruptions of all known structures affect the collaboration of all company employees and the specific roles of managers. This book examines numerous—yet unfortunately underestimated—aspects that exert a significant influence on the implementation and long-term success of change projects as well as sustainable business success in general.

The speed and scope of change companies currently are being faced with are increasing. Megatrends such as health care, climate change, globalization, and artificial intelligence are shaping our lives, and many people remain uncomfortable with the idea of what this may mean for them personally.

Most of the well-known adaptation strategies in these areas are based on traditional, long-time ago established approaches. However, people tend to apply these strategies without consciously reflecting on the emotions geared to this situation, neither in their external environment nor inside the organization.

Everyone has emotions—but few have a sound understanding of how to professionally handle emotions in teams and groups, let alone use them beneficially for colleagues, for themselves, and for projects or other personal matters.

Managers and leaders in particular are particularly challenged, as they are permanently under pressure in their typical sandwich position sitting on the fence between employees and their own superiors and being confronted with new demands at all levels.

Furthermore, this book debunks a few exemplary myths in change management practice and theory and contrasts them with real requirements. In transformation projects, it is important to critically question even supposedly objective observations and mission statements: What works and what is merely just “monkey business”?

A report on the current status of emotion research—in general and in the context of agile change management and organizational culture—provides initial ideas about coping with emotions in a professional setting. This overview includes valuable design implementation tips.

The presentation of concepts and tools for dealing with emotions in a change context covers numerous approaches from the strategic narrative to the graphic novel to the core affect model as well as the mapping of cognition with emotion.

Emotions have a critical impact on all aspects of any company's success, whether in terms of project achievements, future and innovation capability, or everyday business life in general. Many companies are aware of the central role played by the emotionality of their customers. At the same time, the situation in numerous companies shows: This topic could hardly suffer from even less attention within the organization.

This blatantly undervalued success factor needs to be addressed appropriately and integrated in a goal-oriented manner—in the organizational culture, in leadership, in HR management, and ultimately in all company areas within the company.

Krailling, Germany Martin Kupiek
February 2021

Preface

Throughout my 30-year career as an executive in consulting and line management, change projects were, implicitly or explicitly, a top daily agenda item. Sometimes, it was the introduction of a new service catalog and the establishment of a joint venture company following the split or merger of three CRM systems. In industries as diverse as automotive and telecommunications or even the public sector, the focus was always on the technical solution to the problem, i.e., usually a goal was formulated, a project plan was drawn up, and a team began working. However, it was normal that schedules were not met and unforeseen problems, sometimes of a technical nature, arose because managers suddenly defined new goals or preferred other approaches. At some point, nerves were raw, tones became rude, and project teams stopped laughing.

This small example makes it very clear that without emotions, not much works, even in the digital world. Even the agile working methods that slowly came to the fore did not necessarily make things any better because familiar problems did not simply disappear, but new difficulties and conflicts arose that required other approaches to solve them. It became increasingly clear that digitalization and globalization had arrived in German companies. Ensuring competitiveness is of paramount importance for every company. Before 10–20 years, companies such as Google, Facebook, Airbnb, and Uber were small startups founded by enthusiastic techies who received little attention. Mostly, they were smiled at and not seen as serious competitors. Today, they are observed anxiously, as they have had a lasting impact on the competitive environment, e.g., in the communications, travel, and automotive industries, by introducing new business models and rules of the game. Companies are forced to make progress in the digitalization of their businesses. Answers to these new challenges are being sought. Big data, autonomous driving, the Internet of Things, 3D printing, robots, and artificial intelligence dominate discussions in various industries. The associated uncertainties about how to shape this process of change are leading to an increased emotionalization of many projects. In addition to strategic tasks, new factors such as fears, apprehension, and enthusiasm must be addressed (Kupiek 2016, 2018).The great uncertainties regarding future developments—nobody knows if it will work—require the explicit consideration of the emotions of all participants. Nobody knows today how the measures will develop in the future, and enthusiasm and fear in relation to digital transformation must be

balanced. Cognitive diversity and emotional variability should go hand in hand. Having a fear of doing nothing and enthusiasm for doing everything is certainly not a good strategy.

Therefore, the greatest challenge for managers at all levels of the company is to reconcile the technological side of their business with the human side. Uncertainty regarding how this change and implementation process should be designed is extremely high. Very often, digitalization is seen only as a technical problem, i.e., new software and hardware will fix it. Classical approaches to strategy and process design (Krüger 2006) as well as the development of new business models (Matzler et al. 2016) are intended to alleviate the pressure of suffering in the initial phase and then, as in so many other technology-driven projects, to solve the problem with agile methods of software development such as SAFe®, Scrum, and Kanban (Siedl 2018). However, new approaches such as the co-creation approach of Bormann et al. also provide innovative starting points by focusing on the team spirit and the sharing of individual insights (Bormann et al. 2019). Looking at the personnel side, one usually sees a wide variety of topics ranging from simple to highly complex. Recruiting the right techies is usually at the top of the list because it is essential to attract managers who have a good understanding of the technology and outstanding leadership skills. However, as if that were not difficult enough, all other members of the organization need to acquire new skills and abilities to apply the new tools, processes, and business models. Finally, there is also an upgrade of social techniques needed, including incorporating new learning formats, dealing with permanent change, and, of course, implementing projects to adapt to the VUCA world (**V**olatility, **U**ncertainty, **C**omplexity, **A**mbiguity). Employee collaboration, the role of managers, and the deemphasis of hierarchy require managers to have greater ability to work as coaches and process consultants because there are fewer instructions and more guidance to give to employees. The rules of cooperation within the organizational culture are changing, and many issues need to be addressed simultaneously, i.e., new software may require new hardware and a different organization of IT operations. Processes need to be adapted or even redesigned, and all this should be achieved by self-organized teams in an agile working mode. The prospect of hierarchy reduction and transparency is, without a doubt, tempting. However, euphoria can also lead to excessive demands and rejection. There is a lack of experience, capacities, and knowledge to plan and execute complex programs because technical problems must be solved, and workflows adapted simultaneously. Additionally, methods for handling non-agile departments, such as finance departments, are unclear at first and usually lead to new conflicts.

In this environment, middle management in particular has nothing to laugh about, as they are losing power, influence, and relevance in an agile working environment, which can lead to uncertainty and rejection. In the course of a transformation project, new roles and focus areas, for example, cross-organizational teams such as swarms, arise that play a decisive role in the success of an agile transformation. Some hierarchical levels become obsolete, islands of knowledge are spread out, and servant leadership (the executive as a facilitator) requires a completely new understanding of leadership at every level. All of this requires time and perseverance to

change the mindset or mental models of those involved in an existing employee structure (Bormann et al. 2019).The fear of failure then stands in the way of agile change, as do the fear of change, lost power, and transparency, but unfortunately there is (still) no explicit solution for dealing with emotion in the brave new world of digitalization. This is, of course, frightening because it means that everyone is working full steam ahead on something, but people are uncoordinated and equipped with only half the knowledge they need (Eidenschink 2020).

This book is intended to show a new way to deal with this situation. Particularly, emotionalization through the platform economy requires a different approach. How does one deal with emotions? How does one do so in external relationships with customers and suppliers and internally with new emotionally charged conflicts? Which instruments and concepts are available to foster sure-footedness in this rapidly changing world? Is artificial intelligence (AI) the tool of choice here, and will it lead to the goal faster and more efficiently? Numerous startups are engaged in figuring out how to recognize emotions by face, voice, or gait. But what are the ethical implications, and how can the relevant legal framework be guaranteed regarding data protection? Chapter 1 briefly describes the most important megatrends and their effects, including what the new demands on a digital leader are, followed by a review of the current situation, including myths about the most common leadership and change approaches. Chapter 2 deals with the topic of emotions, what we know about them today, and why they are so important for success in today's agile world. This overview concludes with an attempt to contextualize emotion referring to history and sociology and a presentation of theory development of emotion in humans and language as the central foundation of emotional socialization. Chapter 3 describes the role and significance of emotions in the context of organizational culture, while Chap. 4 discusses emotion within the concepts and procedures of agile change management. Chapter 5 provides an overview of innovative instruments and concepts for the integration of emotions in agile change. The range of such instruments varies from analogous methods, such as building an emotion vocabulary, to a critical examination of AI-based tools for emotion recognition. In the final review, in Chap. 6, the aim is to present a summarizing overview and critical discussion of the presented topics of digital leadership, agile change, and the emotion economy.

Krailling, Germany Martin Kupiek
June 2020

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About the Author

Martin Kupiek currently holds a professorship in management at Kutaisi International University (KIU) in Georgia.At the same time he offers consultancy services in the areas of agile change management, strategy and organization culture development with a focus of top management team development and leadership concepts mainly in the telecommunications, automotive, and software development industries. He studied economics, social sciences, business administration, and management in Germany, the USA, and Austria.

His professional career began at Digital Equipment, IBM, and Computer Sciences as a consultant and project manager in the areas of strategy and change management as well as business process outsourcing. At Siemens, he assumed various management positions, most recently as global head of enhanced service. Since then, he has focused on the development of teams, in particular of managers in departments, in divisions, and in the company as a whole, who perform a joint leadership function. The frequent emotional conflicts that emerge in management teams prompted him to take a closer look at emotions in groups and to conceptualize concepts that support the process of professionally handling emotions in teams. Today, these ideas find concrete application in his approaches to agile change management, changes in organization culture, and strategy development.

Digital Leadership in the Agile World and the Present of Change Management

1

1.1 The Megatrends of the World as a Reality Shock

Megatrends

The world and the people change. They have always done so, but the most notable difference between past and present changes is the speed and the global scale of change. We realize that our familiar world has changed in just a few years, and this is just the beginning. Climate change, migration, and the integration of refugees, as well as the simultaneous political shift to the right in many Western democracies, will determine the agendas of politics, business, and society more than ever before. The effects of increasing urbanization and the associated formation of significant metropolitan areas can be observed worldwide but are not yet fully comprehensible. At present, this trend is clearly illustrated by rising land prices, increasing rural exodus and the complete congestion of public transport infrastructures. Against this background, political programs, or action plans, such as the establishment of home ministries, seem almost desperate to counter this trend and preserve at least the basic features of the "old" world.

Emotional Economy

Three feelings will change the economy—or may have already done so subliminally long ago. Anyone who orders something from Amazon, or another provider wants to be enthusiastic about the offer, obtains it quickly and be able to return it without much effort. Therefore, enthusiasm, impatience, and convenience are crucial components of this transaction. In the world of the platform economy, relationships are crucial, and if one wants to sell something or receive attention, one has to create these relationships. Controlling these relationships means power and is therefore crucial for the economic success of a platform. Digital relationships are not limited to the relationship between suppliers and customers; they also affect the relationships between market participants and the internal relationship between the divisions, departments, and teams in a company. As a result, feelings in the marketplace become more important than anything else because purchasing decisions today are

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increasingly linked to the question "What feels best?" rather than "What has the greatest benefit?" Emotions have thus developed a great power to impact, which companies must now anchor in their communication and in their products or services. Sascha Lobo has impressively described this circumstance as follows: "The digital sphere has become a space for emotions, like, love, lol, wow, sad, angry. (...) Digital platforms have a catalytic function; they transform entire markets into landscapes of feelings" (Lobo 2019) . As it is, emotions lead the customer to make the "right" decision when he or she can no longer rationally decide which car, cellphone or jam to buy because the extremely wide range of products on offer and the massive amount of information available mean that a rational decision can be made only at great expense, and this will be done only in exceptional cases. This process will not be stopped but will rather gain momentum. The automotive industry will no longer sell cars but will sell mobility concepts, and the speed to service availability and simplicity of the click-to-buy process will be decisive. How will companies deal with this? Every sales and marketing employee would have to transform into an emotion expert and be able to provide developers with an exact description of how, when, and what emotions should be presented and by whom. Internal conflicts about the right design are thus predetermined because one thing is certain: understanding what emotions are and how they are triggered is very individual and the process of understanding in itself contains conflicts.

Health Care

Another important trend is in the health sector. Digitalization promises to make everything measurable, and it is remarkable that even in the early 1980s, there were calls for boycotts in Germany from all social groups against a planned census. In a landmark decision on data protection law, the Federal Constitutional Court in Germany established the "right to informational self-determination," thereby granting individuals the power to determine for themselves whether and to what extent their personal data are disclosed and used. Today, this is no longer an issue but is part of everyday life for millions of people, as people willingly entrust even the most intimate data to various apps. Hobby runners can no longer do without wearables, i.e., computers worn on the body that include sensors that measure every meter of running distance, including heart rate and calorie consumption (Lobo 2019). Certainly, these digital minions help one come to know one's own body better and to react better to changes in one's physical condition. Data protection and privacy do not matter, and nobody worries about where these data might end up. Digital corporeality becomes a matter of course, with the boundaries of medical applications being fluid. Additionally, individualized medicine and genetic engineering, in combination with analytical data tools, have come to play an unprecedented role and can be used not only for the benefit but also for the disadvantage of individuals. For example, it is already possible with the help of artificial intelligence to analyze voice recordings for possible pathological changes such as depression, ADHD, Parkinson's or Alzheimer's disease. However, it is also possible to use these data, for example, in a telephone interview when an applicant for a job is being considered to determine whether the candidate is potentially prone to chronic

diseases and the company should therefore refrain from hiring the applicant as a precaution. More information will be given on this in the last chapter of the book.

Globalization and the Shift of Economic Power to the East

These trends increase people's uncertainty because it is completely unclear today how these issues can and should be dealt with—or whether they even should.

Of course, companies are also affected. While the past was characterized by clear structures, today everything is VUCA (volatile, uncertain, complex, and ambivalent), and the pressure to adapt to ensure competitiveness has increased. Globalization and digitalization have different faces. Globalization means not only increasing exports to the world but also an economic power shift from West to East (Schein 1995; Kupiek 2018). If the USA has been the dominant economic power in the world for the past 70 years, it will not be long before China takes over this position. For a long time, our attention was focused on disruptive start-ups from the USA, which today, only 20 years after their foundation, have become large corporations. What is often overlooked, however, is that China, for example, can already boast similarly large corporations today. Ten of the top 20 technology companies are already based in China. The major players such as Facebook, Amazon, Google, Microsoft, and Apple are now confronted by Tencent, Alibaba, and Xiaomi, who are equally aggressive in conquering global markets. To illustrate the magnitude of this, one can examine the sales of Amazon and Alibaba during the special sales days of Black Friday and Singles Day or Cyber Monday. In 2017, Amazon sold over $1 billion worth of goods, even with generous discounts, within 1 day. It took Alibaba just 2 min to sell 1 billion dollars' worth of goods, and by the end of the Singles Day campaign, the total sales were 25 billion dollars (Lobo 2019).

China is already a leader in AI and robotics and will continue to invest enormous sums in these areas (Gibbons 2019b). It should also be noted that China is guided by a fundamentally different value system than those of the guiding paradigms in the West, which means that less emphasis is placed on privacy, data protection, product liability, and fundamental ethical considerations in the management of companies. Gibbons (2019b) estimates that by 2030, only the USA, Japan, and Germany from among the current top 10 will be in the top 10 of the largest economic powers and will account for only 25% of the total gross domestic product of the top 10 countries. It follows that international trade relations will also change formally and that the interests of China and other emerging nations such as India and Brazil will have much more influence on the direction of discussions on genetic engineering, the environment, freedom of opinion, and data protection. The availability of scarce resources such as rare earths, lithium for batteries, clean water, or agricultural land will also tend to exacerbate rather than alleviate the situation.

Transformational Communication Technologies and Artificial Intelligence

At the beginning of the 1990s, many people imagined something different for the world of mobile communication and were perhaps even enthusiastic about the possibilities of mobile telephony at the beginning of the cell phone era; however, today, they are rather perplexed or unsettled by smartphones and their new

functionalities, e.g., cashless payments and the numerous health apps for measuring one's body and self-optimization. It is also impossible to ignore this trend towards connectivity, as certain functions have been introduced across the board and sometimes, one cannot even buy food without a smartphone (Lobo 2019).

Artificial intelligence is the next stage of development for these technologies because the application of this learning pattern recognition offers enormous possibilities regarding the processing and analysis of real-time data and the triggering of activities. Any use of voice control, e.g., Alexa or Siri, is applied AI. A need for music is communicated, and immediately, appropriate music plays. All of the tedious intermediate steps of the past, such as searching for and buying music, including the necessary music players, are suddenly eliminated. The fact that millions of jobs worldwide have been lost for a long time is rarely noticed. AI has long been part of everyday life and, as Sascha Lobo pointedly puts it, "The most important effect of artificial intelligence on work is *not* unemployment, but the intensification of well-known effects of capitalism. We look at the horizon and keep anxiously looking out for a coming tsunami, but we have long since been up to our hips in water" (Lobo 2019, p. 224).

However, it is not only the low-income earners who eke out an existence as warehouse workers or salespeople who are affected by this because AI can also change entire company structures—and therefore, bosses will also be affected. AI-assisted decision-making to find the best strategy or answers to competitors will be based on data coming from suppliers, customers, or internal processes. The linking and analysis of these data can then be done with software-based tools that will eliminate the need for manual intervention by management, thus jeopardizing the positions of chief strategists and management consultants.

The use of smartphones in a social context will also bring about significant changes for the world of work and thus for every manager. Given the way teenagers use smartphones today, it makes sense that they will want to use their devices later in the world of work—with all the negative consequences, such as information overload, low information quality, and a poorly developed ability to read and understand complex texts as well as the positive consequences, such as, having the ability to use the digital world, being able to network socially at enormous speeds, seeing the Internet as a fabulous educational machine, not being afraid to try things out, and instinctively approaching new digital offerings (Lobo 2019). Connectivity induced by transformational communication technology can certainly be seen as the single overarching factor that is of paramount importance in the social and economic world.

Education

However, the success of the digital transformation will depend largely on education and continuing education. Today, educational programs must also be redesigned to provide answers to the changes in work brought about by digitalization. The need to deal with the flattening of hierarchies, greater flexibility in work, and the further acceleration of work processes and the associated pressure to respond quickly will largely determine the direction of education and training. These subjects are not yet being taken up in schools. Here, the principle still prevails that one has to be in the

same place as teachers and other students to learn, but this no longer applies to digital learning and working. Apart from the necessary digital infrastructure, learning content must also be adapted to these new requirements.

Demographic Shifts

Business organizations must therefore become more agile, i.e., their ability to adapt to new circumstances must be strengthened to such an extent that they acquire the ability not only to react to disruptions but also to be disruptive themselves. All this must take place against the backdrop of demographic changes.

Baby Boomers, born between around 1955 and 1967, will retire very soon, and Generation X, today's 35–49-year-olds, and the 18–34-year-old Millennials, will have a greater impact on the way companies work. Flexible working hours, sabbaticals, and home offices are just some of the features of the future of work—characterized by the convergence of Millennial culture and technology—to which C-level management must adapt if they want to have a chance of attracting and retaining technology-oriented employees. Many companies must renew their organization, adapt their culture, and become more flexible. Consequently, classic change management must also become agile and led by a change leader who is able to formulate a change strategy with his or her management team and to not only apply intervention strategies but also assess their effectiveness.

1.2 Everything Is Change: Digital Leadership as Change Leadership

1.2.1 Digital Leadership Is Change Leadership: The New Change Paradigm

Megatrends require a new approach to the topic of change. As shown in the previous section, the number and intensity of changes occurring globally have increased rapidly. What began 30 years ago with mobile telephony has now developed into a widespread trend. The computing capacity of today's smartphones exceeds by many times the performance of a common PC in the 1990s. For companies, this means that change no longer occurs in a singular form, e.g., a change in business processes in sales, but rather in the most diverse ways and at many points in the organization simultaneously.

It is no longer possible to work through projects successively, one after the other. Instead, the organization must simultaneously change structures, processes, and architectures in IT, supplemented by additional training and continuing education programs for employees. Change management must also change—a portfolio of change projects must be managed, and other factors may become more important than in the past. Today, competitiveness can be achieved only if change skills are available throughout the entire organization and are not left to only specialists from the HR department or staff, let alone to external consultants. Since change is omnipresent, it must be possible to respond directly to change from the outside.

Everyone must be trained to initiate measures that are appropriate to the situation. A permanent willingness to change or change readiness is a prerequisite. Emotionally, the willingness to become involved must be present, since there are no top-down guidelines and no justification for action, or "case-for-action" is enforced from the top to down. There will be a tendency for a dynamic bottom-up flow of knowledge, ideas, solutions, initiatives, and innovations. All in all, such an approach will tend to strengthen a company, since everyone is equipped with the necessary means, skills, and confidence in their own actions. Otherwise, change is more likely to result in change fatigue or complete overload, and a predetermined failure will be the result. The goal is to be responsible for disruptions in the market and not to be forced out of the market by disruption.

Consequently, every change project has the power to change the organizational culture, whether consciously or unconsciously, and thus influences the emotions of the organization's members. On the other hand, culture also determines the way employees react to change. Smollan and Sayers (2009, p. 438) conclude that

> (...) organizational culture, change and emotions are socially constructed. Many have criticized the cynical way in which all these elements have been deliberately manipulated to control people and harness them to the organizational machine (...). Yet if employee engagement is to be authentic, organizations need to craft cultures sufficiently strong to embrace change without altering their fundamental ethos and to develop an acceptance that emotions are a natural part of organizational culture and organizational change. This study has contributed to (...) reveal[ing] how participants in change believe the affective aspects of organizational culture shaped their emotional reactions. (. . .) The lessons from this study should be of benefit to managers struggling to maintain, adjust or blend organizational cultures and deal with the emotional outcomes for staff.

This makes it very clear why it is so important to explicitly address emotions of individuals and teams and, rather than leave emotions to coaches, personnel developers or even psychotherapists, to understand them as a natural element of a change intervention.

For a long time, little attention was paid to the topic of emotion, and studies were limited to general work, e.g., job satisfaction; that is, until Hochschild (1983) published a study in 1983 that conceptualized the topic of the "emotional labor." It was not until the mid-1990s that affective events theory (AET) was discussed by Weiss and Cropanzano (1996). The theory states that employees react emotionally to discrete affective events in their work environment and thus show observable behaviors and attitudes. Today, these schools of thought are considered up to date but are still very fragmented and little integrated, so the systematic handling of emotions in an organization context is still difficult. Ashkanasy (2003) provided a first approach towards the integration with his five-step model. This model considers emotions in organizations from the individual level to across the entire organization.

1.2.2 Digital Change 2.0

Against this background, it seems reasonable to revise classic change methods and to subject them to a Digital Change 2.0 update. Table 1.1 shows what a digital update can look like on the basis of the popular eight-phase model supplemented by the Kotter Accelerated Change Model.

The first three steps create a climate in which change can take place. Steps four to six aim to ensure that all organization members are actively involved in the change process. The last two steps, seven and eight, deal with ensuring stability and continuing to create even more change.

Certainly, one of the advantages of the original Kotter model is that the steps are clearly described, and from the late 1980s to the early 1990s, his model was trendsetting in uncovering, for the first time, the most serious errors in the implementation of change processes. Critically, however, it should be noted that Kotter's model has not been fully empirically confirmed. Ten Have et al. (2017) could not

Table 1.1 Updated Digital Change 2.0 model compared to Kotter's original and XLR models from Kotter (1996, 2014); Gibbons (2019b)

Change in the 20th century (Kotter and Heskett 1992)	Change in the 21st century (Kotter 2014, XLR8)	Digital Change 2.0 (Gibbons 2019b)
Establishing a sense of urgency	Create a sense of urgency	Everybody is aware of the urgency; more strategic coherence, prioritization, relevance, and significance are needed
Forming a powerful guiding coalition	Build a guiding coalition	Cocreation of a vision that involves everyone
Creating a vision	Form a strategic vision and initiatives	Managers are on all levels and therefore use of self-organization, social networks, competence groups
Communicating the vision	Enlist a volunteer army	Permanent dialogue, real-time and short video messages, direct and immediate feedback
Empowering others to act on the vision	Enable action by removing barriers	Do not generate employees surveys, but visibility; if cocreated, then the employees own already the change personalization, blogs, chats, scaling of messages
Planning for and creating short-term wins	Generate short-term wins	Use of Scrum, iteration, prototypes, experiments, trials, and pilots
Consolidating improvements and producing still more change	Sustain acceleration	Intrinsic motivation important through communion of purpose, meaning, values, learning, ethical framework, and personal development
Institutionalizing new approaches	Institute changes	Change portfolio, quickly replace old with new and stabilize, 2 speeds, project-based approach, self-organized teams, flexible structures, strategy and planning from the beginning

find any scientifically sound evidence to support the model. Although Kotter points out the crucial importance of a company's vision, the analysis neglects what regulates the actual thinking, feeling, and acting of employees in companies. It follows from this that the fundamentals of the vision may completely contradict the actual vision. This leaves open questions, e.g., how must the vision be formulated in concrete terms so that it has an optimal effect, and how can it be determined whether the formulated vision releases sufficient motivation? However, the most important point is its basic assumption regarding the initiation of change projects. For Kotter, it is and remains a top-down process that is initiated by the board of directors or management and cascaded downwards to the entire company. This view, however, grossly neglects, on the one hand, the commitment of employees and their active role in shaping change and, on the other, the requirements of today's digital age. In summary, this means that a digital reality-based process is needed that places employees, their evaluations and their actions at the center of digital change—in other words, a model that is concrete enough to be effectively used in practice. It is necessary to rethink the design of the vision for the positive assessment of the change and thus to consider the motivation of all those involved. Such motivation is linked to concrete guidelines for examining each participant's subjectively perceived advantages and disadvantages of the change in order to stimulate the motivation of managers and employees in the company. It should also be possible to explain and shape regressions (Kotter 1996).

Kotter (1996) then attempted to accommodate the new digital paradigm in 2014 with the publication of his modified model, "Accelerate: Meeting Strategic Challenges Quickly, Agilely and Creatively." Table 1.1 also shows the individual steps of the new model in comparison to the original Kotter model and Digital Change 2.0 concept. This approach continues to be characterized by a top-down ideology, i.e., the board of management is again obliged to initiate change by creating a sense of urgency in order to create awareness of the need for change among managers and employees. Furthermore, Kotter is convinced of the importance of leadership teams or coalitions that are able to develop a vision that can convince the members of the organization and motivate them to participate. The following steps, however, are reformulated in the new model. For example, instead of "communicating the vision," he suggests that an army of volunteers be convened, which he sees as a prerequisite for the successful implementation of comprehensive changes in large corporations. However, it remains to be seen whether this renders the need to communicate the vision superfluously. He also sees the dismantling of barriers, e.g., inefficient processes and archaic norms, as a key success factor, whereby managers should provide the necessary freedom for employees to work in a cross-sectional manner, i.e., across departmental or divisional boundaries, and thus achieve a tangible impact. Thus, this normative model turns employees into simple instruments of the change process and is diametrically opposed to the requirements of an agile working method. "Servant leadership" has little to do with top-down management but tries to overcome its disadvantages, i.e., changes should be designed where they become visible in day-to-day business.

In contrast, Digital Change 2.0 contains many new aspects that are simply missing or only hinted at, not only by Kotter but also by many other authors. Self-organization, agile thinking, system orientation, behavioral science in the sense of neo-behaviorism, radical customer orientation, design thinking, and awareness of the emotions of oneself and those of others have become important building blocks of new change management. Ignoring them means going only halfway. Six aspects play a prominent role, and all of them have more to do with the human side of leadership and less with its technical aspects.

Likely the most important factor is learning—not just setting up training programs for employees but also acquiring change management skills and abilities across all hierarchical levels, for example, understanding what change actually is and which change methods are useful and helpful. This also supports the selection processes of external consultants because the understanding of what works and what does not work is conveyed. A basic understanding of the digital technologies used is not only helpful but also vital for survival. If it is not understood how data streams are created and analyzed, a meaningful strategy cannot be developed.

The dramatic shift from extrinsic to intrinsic motivation must also be considered. Purpose, meaning, a sense of work, and new work are key words. Knowledge workers not only work for money but also use all their creativity and commitment to develop a product or service. Extrinsic motivators might destroy this and disturb the bond of a team or company in the long run.

Kotter's demand for "Sustain acceleration" component, i.e., keeping the speed of change high, seems to work only if a manager is supporting the respective employee. It is at least questionable whether a directive to "press harder" increases the ability of managers to improve systems, structures, and rules. Additionally, relentlessly initiating new change cycles until the vision has finally become reality is probably an unattractive model for Millennials in the IT world, although there are numerous framework approaches and methods, e.g., the scaled agile framework, which can react highly sensitively and effectively to changes. Autonomous working is a basic prerequisite for rapid adaptation to environmental changes.

Motivation is part of corporate culture, and both must be explicitly addressed. Too often, however, the topic of motivation is included in the job description of managers, who are thus asked to motivate employees and encourage them to adopt new behaviors.

Unfortunately, this does not work so easily because managers themselves usually do not know what motivation—even their own—is, how it is created, and how it can be shaped. Furthermore, it is important to note that employees themselves decide whether they want the change or not. For this purpose, they evaluate information about the change against the background of their own life situation according to what consequences the change will have for them. If they expect positive consequences from the change, they will be more willing to accept it; if they expect negative consequences, they will be against it. The source of motivation lies within the employees themselves, and permanent motivation cannot be generated from outside.

The context of the organization—the organizational culture—must be included because once a project is started, it is too late to attend to the culture. It is important to

understand what culture is, how it is created, and how it can be changed. Especially against the background of the emotional economy discussed above, the conceptual understanding of emotions is important, in addition to classic topics such as values and norms.

This is accompanied by the formulation of a strategy that should fit the culture and not vice versa. This also offers the chance to make strategies and their success visible, e.g., through recurring rituals that are a reflection of cultural elements. Especially at the beginning of a project, it is important to show this kind of coherent cultural strategy because the start of a new project is usually filled with many—sometimes mixed—feelings.

However, one should avoid metaphors that represent fear, e.g., "urgency" or "burning platform," because these create negative emotions such as fear. Fear is not a good advisor, as it blocks open communication and interaction as well as creative thinking.

It is a myth that fear creates motivation in order to escape a potentially bad future. However, many messages from managers in change processes generate fear and uncertainty, for example, statements such as "we must change, otherwise we will perish," "we must cut jobs to secure our jobs in the long term," or even, "if we do not become more creative and innovative, the competition will overtake us."

Such messages can mobilize in the short term; in the long term, they create a permanent mood of fear and uncertainty. While employees can temporarily control themselves and correctly fulfill work requirements, they must always control themselves (self-control) in order to pursue the goals that are set by the company even if they themselves actually do not want to pursue the goals. In the long run, this makes people ill, as the dramatically increasing figures on depression, burnout, etc. show. The intrinsic motivation that comes from within and arises from one's own deep will for the sake of work itself (self-regulation) is pushed back. Thus, it must be concluded that we need a procedure that sparks the inner conviction and drive of each employee (motivation).

Commitment and regular communication, especially in internal social media, via centralized messaging systems and dashboards can show everyone what is happening and thus create urgency without drama and fear. Such an approach also supports the network character of an organization, since much is now done via links in flat hierarchies so that everyone can (and should) become involved and the classic "top-down and bottom-up" approach will become obsolete.

1.2.3 Requirements for a Digital Leader

What are the requirements resulting from the changes in change management? As we have seen above, learning, or the ability to learn, and the ability to organize of company-wide, permanent learning processes are some of the outstanding qualities that a digital leader must possess. This has implications for the entire company, various functions within the company and projects as well as for each individual employee. An increasing number of companies are establishing new structures,

processes, roles, responsibilities, and forms of collaboration. New qualifications are required—lifelong learning will be the rule. This also means that all functions in a company will be affected by digitalization. From research and development to production, marketing, human resources, and administration. This is where the basic conditions for product and service innovation are created because agile teams are best suited to engage in innovation, i.e., the profitable use of creativity to improve products, services, processes, or business models. Such teams are usually small and interdisciplinary. If a large, complex problem is to be solved, individual modules are set up to develop a solution for each module problem using special methods such as rapid prototyping with narrow feedback loops. These partial solutions are then combined into a coherent whole. The most important priority of an agile team is adapting to changes and not following a fixed plan. They measure themselves by results (such as growth, profit and customer loyalty), not by their production performance (such as the number of lines of code written or new products created). In other words, agile teams are predestined for situations where complex tasks are involved, solutions are unclear, project requirements are likely to change over time, and close collaboration with end users is possible, and creative teams promise better results than strictly hierarchically organized groups. Conversely, this means that agile and creative teams are less suitable for routine tasks such as those often encountered in purchasing or accounting. Agile approaches have their origins in IT, and they are now widely used in software development. Over time, however, they have also incorporated functions such as product development, marketing, and even human resources (Rigby et al. 2019).

For the internal manager, this will become a daily business, i.e., building and designing an agile change organization in the context of a permanent change project. In particular, the chief information officer (CIO) will be in the spotlight of the transformation because he or she is expected to initiate and implement technological change.

In particular, the boards of directors and managing directors of many companies have for years emphasized the need for CIOs not only to manage IT but also to use technology to create added value for the company. This priority is now a prerequisite for digitalization. New technologies have been at the heart of every new trend—from consumer preferences for mobile devices to the use of artificial intelligence in critical decisions—and are changing the competitive landscape and making traditional business models obsolete. For this reason, companies must be technologically up to date, i.e., technology must drive the business. Nevertheless, many companies are still only beginning to adopt new technologies because they are busy operating legacy systems that, in some industries, e.g., telecommunications or financial services, were developed decades ago but still represent the core application of the company. This points to the problem that many CIOs are unaware of the extent to which their role must be expanded beyond cost and performance responsibility to make IT a core driver of business success. CIO priorities today therefore include rethinking the role of IT in the enterprise, providing new capabilities in service delivery, e.g., platform services, cloud services, and agile product and service development with, for example, the help of SAFe®. To keep pace with rapid

technological evolution, organizations must implement a flexible architecture supported by modular platforms. The use of data analytics, cybersecurity, and AI should be a matter of course. All this requires a massive expansion of a CIO's job profile. In addition to his or her existing tasks of ensuring efficient and cost-effective operations, the CIO 2.0 must also have a better understanding of the business, explain to non-IT-related members of the organization how new technology can or will change the existing business model, and act as a change agent, talent scout, and culture changer.

Businesses must have a consistent orientation towards the customer as an attitude: Customers have become even more demanding. They can easily compare products and services as well as their prices and availability on the Internet, even in stores. They increasingly expect products and services to be tailored to their individual needs.

Adlmaier-Herbst (2018a) states that the demands in digital leadership are already too high.

> Managers should be more agile, more innovative, more creative. They should think disruptively, tolerate mistakes. They should reduce their ego and instead be moderators for their employees. The central question is: How should a manager succeed in doing all this? After all, the new demands are extensive and they affect the personality deeply. A careful, systematic and long-term approach is necessary.

The development of disruptive business models alone, which are designed to change an entire industry, requires successful digital leaders to think three—or, even better, five—steps ahead. Leading disruptive processes requires knowledge not only of methods such as SAFe, design thinking, and rapid prototyping but also of what makes Millennials tick, what motivates them and how they can be kept in the company. Rigid working models, compulsory office attendance, and hierarchical thinking, on the other hand, are likely to drive these valuable employees out of the company again quickly. Additionally, the permanent pressure to keep up to date with the digital trends that (partly) determine the success of a company is not easy task. This includes basic knowledge of digital technologies such as the Internet of Things, two-way platform markets, and machine learning. Consequently, this digital knowledge should then be converted into its own products or services. Those who cannot motivate their employees to develop new products in a stimulating, creative culture of innovation will not go very far. In addition, the enormously complex dynamics must be mastered because changes in companies are taking place ever faster. As a result, management is also becoming increasingly faster in this aspect and must become more flexible (Adlmaier-Herbst 2018a).

These new tasks can only partly be outsourced to external consultants, for example, when it comes to analytical tasks. However, employees' identification with the organization can be lost if principles of collaboration or cocreation are not observed. Permanent commitment is therefore required to ensure that change understanding and skills can spread throughout the organization. The focus is on strategy, i.e., monitoring individual projects in their entirety and context

management. What is often overlooked or neglected is appropriate risk analysis and mitigation planning. The performance or results of the change project portfolio should also be kept in mind in order to manage time delays or budget overruns appropriately. Exemplary behavior should be a matter of course, i.e., the behavior that demanded from employees should also be shown by company leaders and should always be authentically modeled rather than done only for appearance's sake.

However, top managers must remain realistic. Not every corporate function needs to be restructured into agile teams, especially since some are not suited for this. On the other hand, other departments will not simply carry on as before once the principle of agile teams has been introduced in IT. It is frustrating for agile innovation teams to become stuck in bureaucratic processes or be slowed down by operational departments due to a lack of cooperation. This leads to conflicts, and the results leave much to be desired. Therefore, all interfaces and points of contact with other corporate functions must be examined regarding the extent to which they can support the new agile areas without neglecting their own tasks.

The basis for creating an agile organization is therefore possible only with an agile change leader. The leader must ensure that individuals and groups within the organization interact with each other, i.e., nonvisible factors such as mental models, individual knowledge, culture, and climate are balanced with visible elements such as behavior, structures, and processes. Often, however, it can be observed that when writing about agility, only one or two of these points are dealt with. Methods such as Scrum are described in detail, and their implementation is shown in numerous application examples, but interfaces from the IT department to control are omitted. Conflicts are preprogrammed because the hope for less conflict is deceptive. They will not disappear; they will only be replaced by others. Consequently, a holistic approach that includes all the groups must be chosen because each element depends on or influences another element.

This requires an agile mindset or an agile mental model that is oriented towards goals and not towards holding on to what has already been tried and tested. This assumes that an egocentric attitude is not conducive, but a strong team orientation is indispensable if changing teams with different tasks is to be successful. Past attitudes like "the boss knows best" will no longer work—only the permanent involvement of knowledgeable employees will. Demographic change in particular will make experts an extremely scarce resource, and managers will no longer be able to exploit or put pressure on their employees without consequence. Otherwise, these employees will look for—and find—another employer. This is supported by building up experience-based knowledge, which should also be reflected upon regularly in the team or with others in order to ensure maximum learning success. It can thus become clear that everyone learns differently. One individual may learn a great deal from certain situations and another only very little, but this disparity will become visible and thus addressable. This is a fundamentally different attitude with regard to experience because today, experience, and thus the expression of abilities and skills, is more associated with age. The older one is, the better one knows one's way around. In an agile environment, this can be a hindrance, as many factors change at a rapid pace.

What was right and true yesterday is no longer necessarily valid today (Gibbons 2019a).

Finally, an agile culture and organization are created. To be performant and to remain so over a longer period of time, the organizational culture has to be permanently adapted; everything will be in flux, so to speak. Not only must the strategies and processes employed meet the current requirements but also the culture must fit. The organizational culture determines performance and vice versa. This discussion has been ongoing for many years since Peters and Waterman (1982) published the book "In Search of Excellence," in which they claimed that only a strong culture will lead to successful companies in the long run. Years later, they put this statement into perspective by noting that many of the companies they had cited as prime examples no longer existed, thus refuting this argument. On the other hand, weak organizational cultures have the advantage of being very open to weak signals in their external and internal environment and thus able to react immediately by changing their outward adjustment performance and adapting their internal integration accordingly. Edgar Schein (1995) underlines this with various case studies.

Agile organizations move beyond traditional hierarchies, although hierarchies per se are not a bad thing, as they are usually very stable and can deliver significant economies of scale. The origin of stability lies in the balance of power and the flow of information within the organization. Other characteristics are rigid silo areas and departments, which considerably slow down the exchange of information, and rigid rules and regulations, which are more useful for dealing with issues within the company than with customers and suppliers. They restrict creativity and individual commitment in exchange for security and consistency. The field of tension in organizational design options is thus a rather large playing field. The decisive criterion is the speed of change in the external environment—the faster it changes, the less easily a rigid hierarchy can cope with it.

Organization Structures for Digital Change

Many executives in the company first learn about agility through existing internal digital transformation projects. Digitalization and agility go hand in hand,

Digitalization projects that do not use agile methods will probably have to fight to survive in the future because the high speed necessary for providing a solution makes this model extremely attractive for top executives. Therefore, special units—digital factories, garages, accelerators, incubators, and laboratories—are also established to work fast. Without exception, they include cross-functional business and IT teams using a variant of the Scrum methodology to successfully deliver their work package. In many examples, this has improved the speed of delivery and usability of solutions. A wide variety of applications are conceivable. Figure 1.1 gives an overview of the possible applications of agile teams based on the characteristics of development activity and user requirements (Handscomb et al. 2019).

Examples of "flow to work (1)" include human resource activities such as recruitment, learning and personnel development, data management, remote engineering, and design support. This form of requirements system can be used

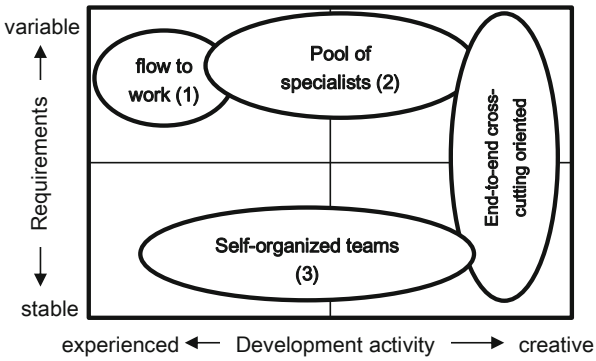

Fig. 1.1 Agile team model based on Handscomb et al. (2019)

whenever specialist knowledge is available, but it does not make sense to entrust an entire team with the same specific task. Instead, employees with suitable skills are sent to the teams. The pools of specialists (2) can also be used in engineering support, depending on the priority of the task. Self-organized teams (3) are particularly suitable for operational and service tasks as well as for supporting activities such as corporate accounting, control, and purchasing. The greatest demands on development are made in creative work that covers the whole range of requirements—from stable to variable. This includes, for example, integrative planning and improvement initiatives (Handscomb et al. 2019). These agile team models can usually be divided into three structures, which experience has shown to work well.

Project-Based Forms of Organization with Two Speeds

This form of organization is widespread. Experts come together to work on a project with a specific objective, and when the work is finished, they separate again. When deployed repeatedly, these teams achieve a high degree of both stability and flexibility. This approach is also chosen when there is a traditional structured core in the organization and freelancers are hired as necessary to work on specific projects. The core organization takes over the responsibility of a project management office (PMO) to manage the project portfolio, secure funding, and perform governance functions. This hybrid form creates stability and flexibility at the same time and is especially suitable at the beginning of an agile implementation. It can be used to test whether it is possible to smoothly transfer project results into other areas, find the necessary personnel, and develop sufficient skills for project management and leadership tasks.

Rigby et al. (2019) use Bosch as an example to explain how the introduction of agile methods can be successful. The different business units at Bosch required different approaches, and the first project was to establish a "dual organization" in which new business units worked with agile teams and traditional functions continued to rely on traditional structures. However, this failed to achieve the goal of a holistic transformation, and in 2015, Bosch management decided to unify the

approach. From that point on, management acted as a steering committee and assigned a project manager who was an expert in agile methods to lead the project.

The first approach was classical, i.e., the procedure was planned with a goal, a target completion date, and regular status reports to management. However, the approach did not fit with the agile principles, and the business units were simply too skeptical about another centrally managed program. The team took a different course, and the steering committee was transformed into a working committee to make the discussions more interactive. The team compiled a list of prioritized tasks that was regularly updated, while the executives focused on removing structural and mental barriers within the company that prevented or hindered agile action. The team members focused on dialogue with the heads of the business units. The result was a complete change in strategic thinking and action, as an annual planning cycle became a continuous process of strategy formulation. The members of the management team also split into agile teams including individuals filling the roles of product owner and Scrum master to solve complex problems or work on fundamental issues. Today, Bosch works with a combination of agile teams and traditionally structured units. However, almost all areas of the company are based on agile values, work better together, and are able to adapt faster to more dynamic markets.

Rigby et al. (2019) concluded from these experiences that too many companies make the mistake of concentrating on what is easy to realize. They put teams into external incubators and respond to systemic problems with convenient workarounds. This increases a team's chances of success but does not provide the necessary learning environment or organizational changes to scale the agile approach. The first agile teams of a company are often the test subjects, which should reflect diverse and realistic conditions just like any other prototype. The most successful companies, however, focus on the most important customer requirements, which are cross-sectional across all processes and thus cause the greatest frustration in the functional silos.

However, no agile team should start before it is ready. "Ready" does not mean that everything has to be planned in detail and has to come with a guarantee of success but that the team should meet some requirements, including the following:

- Focus on a business opportunity with high potential
- Take responsibility for concrete results
- Be equipped with the confidence of the management to be able to work in self-determined ways
- Be assigned clear decision-making powers
- Ensure sufficient resources—both qualitative and quantitative
- Show willingness to apply agile values, principles, and procedures, and be able to work closely with customers to provide prototypes quickly.

A basic prerequisite is of course the support of the board of directors or management, which must be prepared to remove all obstacles during the introduction.

Self-Organized Work Teams

The ability to organize oneself is a fundamental prerequisite for using agile methods. In the IT environment, the best architectures, requirements, and designs come from self-organized teams. Such teams can show a very high level of commitment, innovation, and efficiency and are therefore equipped with considerable leeway and autonomy with regard to the results to be delivered, the use of planning methods, personnel deployment, and the monitoring of service delivery.

Diversity in agile teams is another advantage and can come in many forms, such as educational, gender, professional, and cultural diversity. However, how differently team members approach problems, how they make decisions, and how much information they need to make a decision can be just as important as diversity. Homogeneous teams may reach consensus more quickly than heterogeneous teams but only because they are not able to consider all possible options.

Disadvantages arise when cooperation with other autonomous teams is necessary because the teams then have to give up a part of their independence in order to achieve a common, overarching goal. Of course, this may cause conflicts, but such disagreements are often moderated by a higher authority, i.e., management. Selecting the right people for a project team and simultaneously observing changes in group dynamics, as well as adding or removing team members from the team if necessary, are other key responsibilities of management.

Holacracy

The name holacracy is derived from the Greek "holon" and means "to be part of a whole." The US American entrepreneur Brian Robertson is considered a pioneer of this form of organization. He was looking for a social technology to restructure his company, and holacracy can be described as a form of work organization or a management system in the sense of new works. It balances autocratic and grassroots organization. It intervenes deeply in the structures of an organization by changing the whole organization and therefore contrasts with other agile methods that can be applied only in one area of a company. The characteristics of its organizational concept are as follows: All employees make decisions independently. They have no functions like marketing managers or product developers but contribute equally as experts for individual tasks. Hierarchical organization is replaced by interlocking circles and cells that act independently. The central rulebook of the holacracy method is the constitution, which is divided into five chapters: filling roles, circle structure, governance process, operational process, and adoption matter.

The basis is participation and transparency through all decision-making levels. Every employee can participate in changing the organization. This is the desired goal of the system, and change is therefore inherent in the system. Decisions are made by the individuals who are affected by the change and who have the best knowledge and competence to work on the assignments. Instead of basic planning, many small course corrections are made, which should result in dynamic control. The goal is to avoid cumbersome, bureaucratic processes that arise in hierarchical organizations. Instead, holacrats trust in the fact that action is taken in relation to the present. The idea is to clarify workflows, redefine areas of responsibility, and simplify and

decentralize decision-making. Above all, holacracy is intended to increase creativity and work ethic and to promote the personal development of employees.

Frequent problems in holacratic organizations are salary structures and career opportunities. Often, an informal hierarchy that is quite close to the classical model develops. In addition, the reporting structure cannot simply be omitted in listed companies, so these firms must also install reporting positions as holacratic organizations (Kennerknecht 2018).

1.3 Reality: What Has (Not) Been Thought and Done So Far

1.3.1 The Status Quo: Change Management and Its Myths

Overview

After the new change paradigm has been outlined, an overview of the current situation follows, i.e., consideration is given to the literature and what is currently considered standard. In the following, we will look at which old ghosts still prevail in change management so that one can be better prepared if, for example, a consultant wants to convince one of the advantages of his or her services. One should consider whether he or she has already arrived in the digital world or is still working with the tools and convictions of the past century. As examples of the most common claims in the consulting industry, the assertion that "70% of all change projects fail" and the "change curve" are presented and discussed.

70% of All Change Projects Are Not Successful

The digital transformation requires finding answers to a changing world that will transform an entire business and its people. The final building block in this area of tension is change management—this too must change. Steven ten Have et al. wrote the book "Reconsidering Change," in which they examined 18 assumptions regarding change in terms of their truthfulness using an evidence-based approach including an analysis of scientific and popular publications. In the following section, a popular approach is presented to emphasize the importance of reflecting on one's own situation and not believing claims that are not tenable (Ten Have et al. 2017).

In the 1990s, new issues arose. On the one hand, there was the assertion that 70% of all change projects can be classified as failures because they do not achieve the planned or hoped-for goals. On the other hand, there is the assertion that people can change only if they are aware of the urgency of the need for change ("sense of urgency").

The origin of the claim that 70% of all change projects cannot be successfully managed can be traced back to a statement by Beer and Nohria (2000) who first mentioned this rate. One of the reasons given was that such projects were sometimes never even started, even if the need was clearly defined. Other reasons included lack of perseverance on the part of managers and employees to complete the project, budget limitations, and deviation from the original objective. In view of the

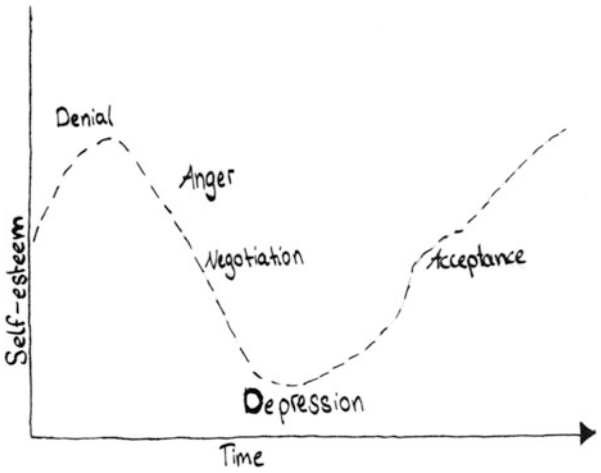

Fig. 1.2 Change curve adopted based on Kübler-Ross

numerous successful innovative breakthroughs in management and the business world during this period, e.g., in mobile communications, this figure seems incorrect.

There is no actual evidence behind this assumption because Michael Hammer and Jim Champy who very successfully published their ideas for re-engineering business processes in the 1990s (Hammer and Champy 1992) mentioned this figure around 1992 but in a completely different context. It came up when they were looking for concepts to make processes in large organizations more flexible, and they commented on the success of re-engineering projects. This figure was clearly described in this context and made no general evidence-based reference to change management. However, the claim was too attractive to be ignored by consulting firms so that this claim lived on and, unfortunately, survives today. The research of Ten Haves, who analyzed more than 200 publications on the subject, supports this. What is missing is any evidence that presents valid, reliable, and comprehensible arguments that would confirm the assumption that 70% of all change projects are a failure.

The Change Curve

Also, very popular in the context of change projects is the use of the change curve to illustrate the course of a change project by means of a typical course, which has its macabre origins in the dying process, as described by the psychiatrist Elizabeth Kübler-Ross in the 1960s. Kübler-Ross established a connection between emotions, people who have been diagnosed as terminally ill and their experience with the dying process over time. Figure 1.2 describes the five-phase model of Kübler-Ross, which shows the different emotions that characterize each stage: denial, anger, negotiation, depression, and acceptance. Aligning change management with a model that describes the world from the perspective of the doomed is anything but a good idea. Numerous points of criticism have been raised about this concept.

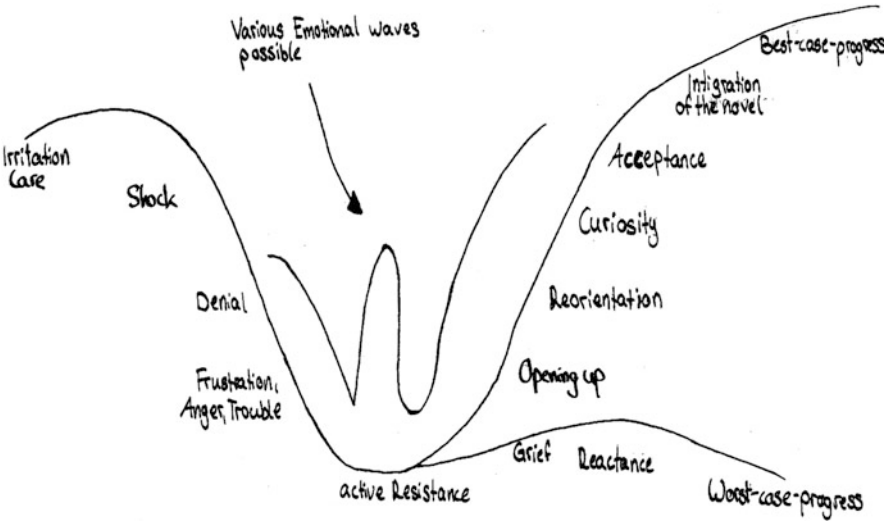

Fig. 1.3 Variation of the change curve

Change Management for Dead People

All these phase models are based on the common assumption that every change process is basically the same. This may sound plausible at first, but it is by no means the case in reality. Of course, a hostile takeover or a cost-cutting program including extensive staff reductions triggers different emotions in those affected than a software changeover or the introduction of a new mission statement. If one traces the real climate curve of different change processes, one not only arrives at partial phases of varying length but also finds that certain moods sometimes have to be "interpreted" quite strangely to divide them into certain project phases in order to arrive at the prescribed course.

Often, the curve then starts with surprise or irritation, without indicating whether the curve is a representation of emotional intensity or discrete or dimensional emotions. More information will be shared on this in Sect. 2.1. Very often, the conviction is held that emotions serve to ensure survival, but other emotion concepts that are equally valid are ignored (Fig. 1.3).

Understanding where the curve starts is important. Is the initial reaction to the announcement of a change project positive, negative or neutral? The answer will vary. If top-down change approaches are chosen, the reaction is often negative because an element of heteronomy appears and spontaneously triggers reactance, i.e., unwillingness and resistance. In addition, employees are not idle before the new change program is announced. Most of them are fully occupied with their daily business and do not need any additional tasks. It is no wonder, then, if the initial reaction is not always characterized by enthusiasm.

This is even truer when employees and managers see no need for action. Because if one does not see a problem, one does not necessarily need a solution.

Alternatively, if a number of change projects in the recent history of the company have failed or been blocked, it is logical when people say, "Please, not again—a lot of work for nothing!" However, sometimes, despite all this, new change projects are received very positively. This is the case when such projects promise to find a solution to a problem from which the employees suffer. For example, if the entire company suffers because the old organizational structure no longer works as a whole, it is quite possible that the announcement of a reorganization will be received with relief and (too) high hopes. The same applies if the existing processes force employees to follow rigid rules so that their daily work is characterized by many mistakes, misunderstandings, and quality problems. Then, process optimization may be welcomed with enthusiasm, if not with hope and a positive mood. It is also important whether the existing pressure to act was discovered by the employees themselves, e.g., in the course of a preliminary project. If, for example, when analyzing opportunities and threats, employees and managers come to the conclusion that "keep it up" is not an option because Asian competitors have started to attack their field of business but that new business opportunities are developing as a result of a consistent focus on certain niches, then everyone is motivated to implement the newly gained insights. The project will thus start off correspondingly positively.

In other words, right from the very beginning, it becomes clear that the "change curve" is by no means a law of nature—it can be influenced and is highly determined by the chosen procedure. Anyone who wants to force employees and managers to solve a problem that they do not even see and thus destroy functioning structures should not be surprised if employees are against the change. In reality, the much berated "brakemen and blockers" are often only trying to save the functionality of their departments from the half-baked ideas of "innovators," and they accept being attacked by the board of directors and its consultants. If they see the need for change, and they feel confident about it—if they perhaps even see the chance to contribute to a major breakthrough—then the change curve begins at a completely different point, and it takes a different course accordingly. Employee objection often means commitment and should not be confused with resistance, as it has been previously and continues to be time and again.

Regardless of how the mood is at the beginning, the curve continues forward. One could assume that the more positive the mood is at the beginning, the more enthusiasm will cool down as things progress and that the more negative it is at the beginning, the more the mood can actually be improved. In fact, after an enthusiastic departure, a certain disillusionment often sets in when it becomes apparent that the project involves much more work than initially thought—and that the supposedly brilliant concept will not solve all of mankind's problems, only some. In this respect, disillusionment and temporary dry spells are indeed an experience that occurs in more than just change projects. Figure 1.4 clearly shows that the emotions change in the course of a project, whether due to bad news from other parts of the company, a lack of financial resources for implementing solutions, or simply due to a lack of trust among employees and managers within the organization. This course of emotions clearly contradicts the assumptions of the change curve. Interestingly,

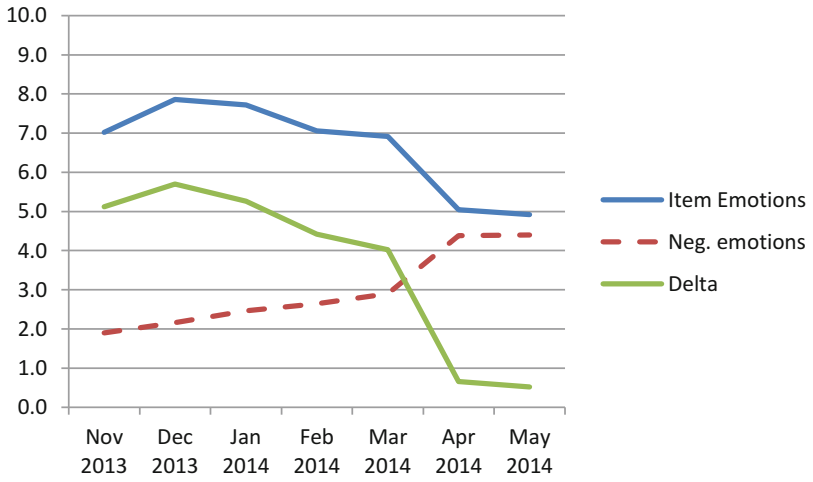

Fig. 1.4 The progression of emotions in a Change Project (Kupiek 2016)

positive emotions outweigh negative emotions throughout the entire process, even when negative emotions rise sharply at the end of the project.

However, if a project starts with a very negative mood, it is unfortunately not always only a matter of time before the climate turns positive. As numerous takeover victims know, what starts badly may remain bad. Even with cost-cutting programs and staff reductions, it is rather unlikely that the mood turns positive at some point. At best, there is a certain relief at the end, and everybody is glad that the project is over. However, those affected probably rightly feel cynical about the term "acceptance of change" being attached to this sign of relief at the end of the climate curve.

The dying process, as described by Kübler-Ross, ends with death. It is a matter of dealing with the inevitable and finally accepting it. It is therefore quite possible that this process will take a fairly uniform course despite all the potential differences in each case. If, on the other hand, one examines the change curves from different books and publications together, one will find that there is no uniform change curve at all, but rather countless variants that different authors have apparently either copied somewhere or drawn freehand based on their own assumptions and experiences and adapted for their own purposes. So, one only has to search long enough to find a curve that, in retrospect, fits one's project very well. It is only slightly difficult to predict climate development in view of the numerous options.

Ultimately, all of these change curves have only two things in common, namely, that sooner or later, they involve a negative mood, and they end positively, with "contentment," a friendly mood and "acceptance," by which Elizabeth Kübler-Ross means the acceptance of one's own death. Looking at real changes, such a positive ending is anything but guaranteed. What about all the change projects that have failed or that "gently fell asleep"? Did they also end in "acceptance" and a positive mood? What about the projects in which the achieved state is hardly more satisfactory than the one at the beginning? Contrary to the hope that all will be well in the

end, there is no claim to salvation. In many cases, the end result is more like relief that the change is over or, as in the case of failed mergers, acceptance of the inevitable.

1.3.2 Triggers, Types, and Conceptual Developments in Change Management

In the early stages of the development of change management concepts, we find Kurt Lewin, who presented the first theory-based change model approximately 80 years ago. The world was very different. Stable framework conditions and economic continuity characterized the development in the period after World War II. Lewin developed a three-phase model that included the steps "unfreeze–move–refreeze," indicating that one must first dissolve an organizational state, then change it through a new solution and finally, anchor this state within the organization. This approach is embedded in the schools of thought of Gestalt psychology, group dynamics, action research, and field theory and is still relevant in current change management in this form, although the challenges facing companies are very different from those of the past (Burnes 2004).

However, if Lewin's concept is reduced to only the three-phase model, it loses its value completely, since change is not episodic and is not an exception to the regular course of business. Static mental models no longer work today, nor do one-off behavioral changes—if they can be achieved at all. Lewin's assumption that one can initiate only top-down changes to motivate employees to change no longer stands today. His idea and the approximately 30 further modifications made to it by the mid-1980s represent the era of planned change, which has been replaced by emergent approaches over the years (Bullock und Batten 1985).

Emergent change aims to adapt to the rapidly changing environment in the best possible way. Therefore, around the 1990s, there was a certain level of anticipation about the time of the VUCA world and agile management.

In Sect. 1.1, the megatrends of the twenty-first century are outlined. In addition to the dominant discussion about digitalization as a rationale for change projects, classic topics such as restructuring, mergers, and changes in organizational culture are also relevant. Even in successful companies that have so far mastered the challenges of information technology, adaptations to the environment must be made again and again. Quite simply, to continue to be successful in the future. Every purchase of a company and its integration into another organization requires considerable effort to successfully manage the integration effort.

The actual beginning of the history of change management dates back to the 1940s when Lewin introduced the first conceptual change approach. Lewin was a humanist who believed that only by resolving social conflicts, be they religious, racial, or organizational, could the living and working conditions of individuals be improved. For him, the key to solving social conflicts was facilitating learning and enabling individuals to better understand and restructure their perceptions of the world. This first approach to planned change is comprised of four core elements,

namely, field theory, group dynamics, action research, and the three-phase model, "unfreeze–move–refreeze." Although these issues were often considered separate concepts, and are sometimes still considered so, he saw them as a unified whole, with each element supporting and reinforcing the others. In Lewin's view, all of them were necessary to understand and implement planned changes, regardless of whether it was an individual, group, organization, or even society as a whole that was involved. His study, published in 1941, focused on group decision-making behavior in democratizing participation and productivity at Harwood Manufacturing Corporation in Virginia, USA. Here, the approach was developed, applied, and improved. It also conceptualized the issue of resistance in the introduction of new guidelines for workers in order to develop procedures that would enable resistance to be overcome (Adlmaier-Herbst 2018b).

Following the oil shocks of the 1970s, the early 1980s saw the rise of Japanese companies and sharp economic downturn in the West. It became clear very quickly that many organizations had to change quickly and often drastically if they were to survive. Lewin's concept, which can be described as group-based, consensus-oriented, and relatively slow, has been increasingly criticized. Emergent change came to the stage, especially the culture excellence school of thought posited by postmodernists and processualists (Burnes 2004).

The Culture Excellence Approach

The culture excellence approach to organizations as developed by Peters and Waterman (1982) and Kanter et al. (1992) had an unprecedented impact on the management of organizations. By equating organizational success with the presence of a strong organizational culture, the formula for competitive adaptability and profitability had seemingly been found. Peters and Waterman argued that many organizations had lost their competitive advantage because they were too bureaucratically slow and inflexible to change. Instead of the traditional top-down leadership style, which required command and obedience, the proponents of the culture excellence concept emphasized the internally and externally integrated character of organizations. To survive, organizations needed to reinvent themselves and exploit synergies, and leaders were encouraged to create a mindset that encouraged innovation, experimentation, and entrepreneurship by creating a strong organizational culture. This heralded a paradigm shift, as the world was now seen as an ambiguous place where detailed plans no longer counted for much and flexibility was essential. Organizational goals were to be promoted through loose control based on shared values and a common culture. This meant that change could not be driven from above but had to emerge through an organic bottom-up approach. A few years after the book was published, however, it turned out that the majority of the companies cited as examples no longer existed and had left the market for various reasons. Of course, this was not consistent with the thesis that a strong culture automatically leads to success. Critics also argued that there had been a misunderstanding that success is the first thing that creates a strong culture and that the structures and rules that are developed are then permanently applied. A strong culture has the disadvantage that signs of difficulty or problems are not noticed,

precisely because the status quo has been successful for so long. With weak cultures, however, the members of the organization are very aware of this and react even to the smallest stimuli. In this way, they are aware of every change in the external and internal environment and adapt immediately.

The Postmodernists

Parallel to the development of the culture excellence concept, the postmodernist view was developed. It postulated that the goals and results of change programs are determined more by power (struggles) than by a process of consensus building or rational decision-making. For postmodernists, power is the central feature of organizational change, understood as the result of lived social constructivism in organizations. Social constructivism is characterized by the assumption that an individual's reality is created through social relations. In addition to this sociological interpretation, there are other definitions in psychology, but these will not be discussed here. From this, two scenarios for organizational change emerge. On the one hand, constructivism can represent a vehicle for the domination of a few organizational members that allows only the interpretation of environmental conditions and the internal integration of a minority, forcing this view on the majority; on the other hand, constructivism can allow the creation of a comprehensive organizational grassroots democracy that permits open processes accessible to all and thus abolishes the dominance of top management. However, on the whole, constructivism itself is a highly complex theory and difficult to integrate competently into the world of change management. It is ultimately a scheme for opening up the world to many people at once, and it is helpful if everyone becomes aware that reality and truth are man-made constructs and not objective facts of this world (Burnes 2004).

Processualists

The other important perspective of organizational change that emerged in the 1980s was the processual approach; processualists reject prescriptive, recipe-like approaches to change and are suspicious of individual causes or simple explanations of events. Instead, they focus on the interrelationships between individuals, groups, organizations, and society. In the foreground of their theory is the view that every process of change is a complex and chaotic process of rational decision-making, individual perceptions, and political power struggles. They criticize Lewin's approach of planned change as too static because it does not sufficiently take into account the necessity of analyzing and designing organizational change. Instead, change initiatives must be examined at different analysis levels and across different time periods so that organizational functions and hierarchical structures can be considered. This then enables the design of a complex analytical, political, and cultural process that questions and changes the fundamental beliefs of the organization's members, structure, and strategy (Burnes 2004).

The complex, fast-paced business environment of the twenty-first century makes this impossible, as a company is faced with the need for change from a variety of

directions and a CEO can no longer know every detail of his or her employees' work (Gibbons 2019b).

1.3.3 Leadership Theories

There are an almost unmanageable number of leadership theories. To illustrate the various demands on and necessities of digital leadership, the following section outlines the most well-known approaches, namely, situational, transactional, and transformational leadership, and presents the approaches' corresponding advantages and disadvantages.

Situational Leadership
Situational leadership theory assumes that leadership success also depends on the general conditions in which the supervisor and his or her employees find themselves. Accordingly, leadership success—measured as the performance of the managed group—depends not only on the leadership style but also on the factors of personal relationship between the superior and his or her employees (those being led), the task structure (e.g., the degree of difficulty), and the positional power of the superior.

Essential criteria for the quality of any theory are its empirical, prognostic, and conceptual validity. Examples of nonvalid "theories" are horoscopes and truisms. No evidence can be found for these theories because the basic central concepts of them are formulated in such a way that they cannot be measured or operationalized and thus cannot be empirically tested. This same weakness appears in task and relationship orientation, management success, and the degree of experience maturity of employees. It follows that situational leadership theory cannot make concrete suggestions for improving leadership behavior. Recent research has therefore focused on models of transactional and transformational leadership as well as on pragmatic leadership competencies that are aligned with the strategy of the respective organizations. This trend also includes a move away from the search for "optimal" or "promising" leadership styles or personality traits.

Transactional Management
The term transactional management refers to a management style based on an exchange relationship between a manager and an employee by means of a target agreement, e.g., management by objectives. This style of leadership works on the principle of performance for money. Thus, the following aspects are regulated: which expectations and goals are placed on the coworker, which financial and immaterial advantages or disadvantages the coworker must expect, and which requirements must be fulfilled.

Managers who manage according to the transactional model motivate their employees primarily by clarifying goals and tasks and delegating responsibility. At the same time, they control performance, rewards, and sanctions of undesirable behavior through criticism and feedback. It is a rather objective exchange relationship (transaction) between the performance of the employee and the superior's

reaction to it (payment, praise, and blame). However, using this approach alone has not proven to be sustainable, and therefore, in practice, it is often used in combination with the transformational leadership concept.

Transformational Leadership

This leadership style is called "transformational" because it changes (transforms) behavior. The key question is as follows: How can one you ensure that employees are loyal, enjoy taking responsibility, develop team spirit, show self-discipline, and respond to change with a willingness to learn and be committed? Traditional target agreements, praise, salary increases, bonuses, and other "rewards" will not be able to bring about such behavior in the long term. Even the most diverse means of pressure are not enough. One of the most effective methods of behavioral change is for managers to set an example. Managers must challenge (inspire) their employees, encourage them to become more independent, create a basis of trust, and communicate fairly. These actions are at the core of transformational leadership. This is leadership behavior as practiced in extraordinarily successful companies, and we currently see it as an extremely effective further development of leadership with target agreements (transactional leadership). However, this leadership style has also been strongly criticized, although it is widely used in practice and considered an effective form of leadership (Pelz 2016).

Again, validity is cited as a problem. Van Knippenberg and Sitkin (2013) cite four problem areas. First, they point out that a basic conceptual definition is missing. By this, they mean that it is unclear how and which different dimensions have been selected and how they influence each other in their interactions. For example, how is trust generated and measured, and what influence does this have on the success of a manager? Furthermore, cause-and-effect relationships are unclear; at best, a correlation of the different factors can be shown. Third, the operationalization of the concept is confused with the results. In other words, the cause-and-effect mechanism is also not described, but subjective attributions regarding the effectiveness of transformational leadership seem to be used to represent success. Finally, the authors see a problem with the measurement instruments used, which do not allow the empirical results to be reconciled with the theoretical foundations, i.e., the dimensional structures of the concept cannot be reproduced to achieve a clear distinction from other leadership theories. Consequently, these authors demand that reference be made to other theories rather than continuing to be distracted by a pseudo-objectivity (Van Knippenberg and Sitkin 2013).

This outline of current management theories has shown that the theories have only one common theme, i.e., they are insufficiently geared to the requirements of digitalization. New skills that are needed in leadership today cannot be taken into account because digitalization was simply not present at the time these approaches were developed. Consequently, managers may try to address current issues with conventional methods of leadership.

Any attempt to combine transactional and transformational leadership styles is also difficult. In Table 1.2, some characteristics of the different leadership types are compared, and it is immediately noticeable that a combined style is difficult to

Table 1.2 Leadership style and emotion based on Schaff and Hojka (2018)

Features	Transactional management	Transformational leadership
Subject Level	– Process oriented – Organized – Analytical/Rational – Objective – Reliable	– Innovation oriented – Visionary – Sense making – Emotional – Motivating
Positive Emotion	– Secure – Excited – Confident	– Thrilled – Meaningful – Joyful
Negative Emotion	– Bored – Underchallenged	– Threatened/Defensive – Insecure/Fearful – Overstrained

realize. Maintaining a healthy and productive balance among task fulfillment, the personal and professional development of the employee, and the associated dilemma of distance and closeness is certainly a tightrope walk for any manager. A critical view is also necessary with regard to the emotional reactions derived from the leadership styles and described by Schaff and Hojka (2018), because they forego a theoretical foundation of emotion at all. Within the framework of motivational emotion theory—for details, see Sect. 2.3—emotion is a reaction to a stimulus that then triggers a corresponding emotion in the individual but does not allow for a modification of the emotion as envisaged in appraisal theory. However, it is likely that employees evaluate their behavior in some way and thus regulate and adjust their emotions. The valid "display and feeling rules" of emotion in different organizational cultures, which are discussed in more detail in Chap. 3, also play an important role in the derivation of emotion. Nevertheless, it is a good approach to address emotion in leadership processes.

In the case of strategic topics, the orientation of a strategy's theoretical foundations is important. In the following section, current methods of conceptualizing strategic and operational working methods are explained.

1.3.4 Strategy Concepts for Disruptive Change

Strategic concepts are of paramount importance in the context of digital transformation because this is where the journey is headed. The "what" is in the foreground; it is the concrete goal on which the entire organization should ultimately focus. It would be fatal to introduce cost and resource-intensive methods such as SAFe® if there is no strategic alignment or planning or if it is not clarified in advance which topics should be implemented in an agile manner. A brief outline of possible approaches should make it clear that strategic analysis should be approached with SAFe® in mind to rule out avoidable breaks in the process. Interruptions in turn lead to isolated solutions, which later have to be laboriously reconnected to the entire flow.

One method for applying tailor-made management concepts is a stocktaking and comparison of the need and willingness to change. Digital transformation is probably one of the most comprehensive projects today. Companies must ensure their competitiveness and adapt to new environmental conditions. Tasks include both the classic activities of strategy development (Krüger 2006) and process design as well as the invention of new business models (Matzler et al. 2016). Consequently, the organization, training, and further education concepts for the employees must be adapted to meet the new conditions (Brynjolfsson und McAfee 2014).

The challenges for managers and experts should not be underestimated. As a rule, a three-stage process must be followed. In the first stage, products and services are digitized; for example, there are now intelligent sports shoes with built-in sensors that can measure an athlete's active time, speed, and heart rate during training and transfer these data to a PC for evaluation. This originally gave Nike a competitive advantage, but after a short time, the innovation became a "commodity" product again. In a second step, business processes must be optimized to realize productivity gains. So-called predictive maintenance, i.e., a reduction in information and storage costs, are the core applications here. However, even these activities are rather short-term defensive in nature and widespread. They belong to the well-known instruments of modern management and provide only the minimum level of competitiveness but no advantages over the competition. Digital business models, on the other hand, as offensive measures, are more likely to generate long-term advantages for companies by creating added value for customers. Brynjolfsson and McAfee (2014) estimate that $1 of technology investment requires $10 of investment in organizational adaptation to derive any positive benefits from digital transformation. A comprehensive approach must be formulated that addresses questions such as "how can we develop a new business model," "how can we implement the new model," and "what does it mean for the organization, teams and individuals in the company, and what does a sensible approach look like?"

Many managers are still stuck on the traditional ideas and concepts of classic management theories. Management boards still lead with instruments from a well-known repertoire, i.e., setting up projects, delegating tasks and problems to the next level of the hierarchy, and controlling progress and costs. In other words, today's challenges—the invention of the digital future—are being addressed with a management style from the past. Hamel (2012) describes this phenomenon as follows: "The management of your company is largely in the hands of a small group of long-dead theoreticians and practitioners who invented the rules and conventions of 'modern' management at the beginning of the 20th century. These masterminds are the 'poltergeist' who haunt the now obsolete machinery of management" (Hamel 2012, p. 23 as quoted in Reinhardt 2014, p. 209).

Matzler et al. (2016) propose four ingredients to address to bring the approach into the modern era, namely, diversity, independence, decentralization, and aggregation. They emphasize that the cognitive diversity of different people with different experiences, knowledge, and information allows for the greatest possible variance in perspective so that as much input as possible can be generated. This process should be organized in such a way that all participants can share their ideas and

contributions. The prerequisite is an open atmosphere without peer pressure or hierarchically determined influences.

In globally operating companies, it should also be a matter of course that international teams, with their cultural and ethnic diversity, participate, as this can improve the creation process. Decentralized knowledge production also necessitates a mechanism that can reaggregate this knowledge. Technical facilities such as SharePoint or face-to-face meetings can achieve this. These four factors are certainly not new, but the combination of diversity and decentralization is certainly a novelty for many listed companies.

Organizing such a process is often a challenge, but these massive digital disruptions, which are also fraught with major risks, require a new approach. The disappearance of numerous jobs and great uncertainties regarding future developments require the explicit consideration of the emotions of all involved.

No one knows today how the measures will develop in the future, and enthusiasm and fear regarding digital transformation must be balanced. Cognitive diversity and emotional variability should go hand in hand. Having a fear of doing nothing and the enthusiasm to do everything is certainly not a good strategy. How can positive and negative emotions be balanced? Before outlining this approach, it is worthwhile to give a brief overview of the state of emotion research.

1.3.5 Implementation with the Scaled Agile Framework (SAFe®)

Once the basic strategic orientation is known and formulated, the next step is to begin developing the corresponding architectures, software packages, and IT infrastructures. The organizational work usually takes place within the IT department, since it is assumed that the department has the corresponding resources and natural competencies. Today, agile software development methods such as the Scaled Agile Framework® (SAFe®) are often used in digital transformation projects to achieve the desired results faster—see Fig. 1.5. Since 2017, SAFe® has been a leading method around the world for scaling Scrum.

Traditional methods such as the waterfall development approach are increasingly fading into the background. Here, requirements for a new IT system or new software are first formulated and then usually transferred into a requirement and functional specification. The individual work packages are processed one after the other until the finished product is released for use and support can be provided. Tight project management is a prerequisite since the scope of the project is fixed and resources and time are considered variable. Quality requirements are regarded as constants. The characteristics of the classic waterfall model are the consistent execution of the previously planned phases. If a phase is completed, this decision cannot and should not be reversed. Consequently, the waterfall model is unsuitable for projects with many unforeseeable factors that require flexible adjustments.

This lack of flexibility is the central risk factor when using the classic waterfall model. Since the planned procedure from the conception phase is firmly adhered to, errors in the implementation usually become apparent only at the end of the project.

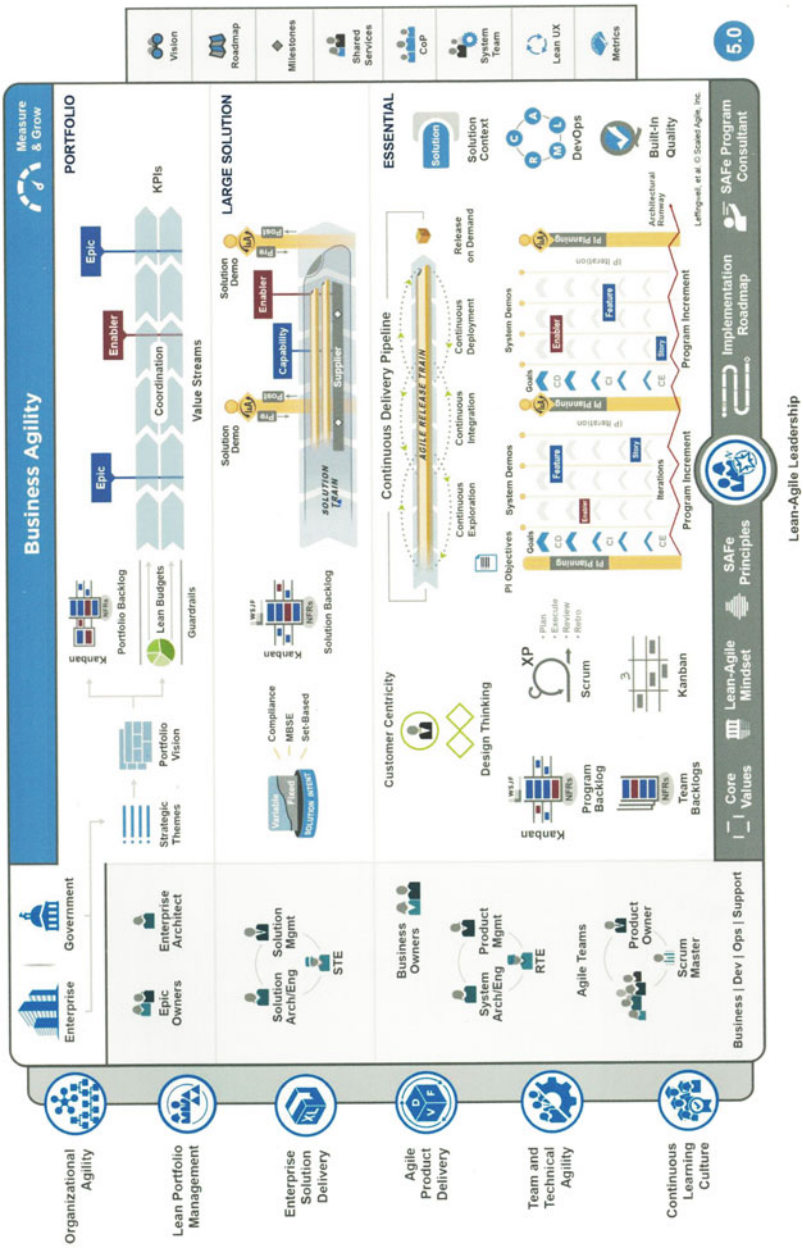

Fig. 1.5 The Scaled Agile Framework® (SAFe®)

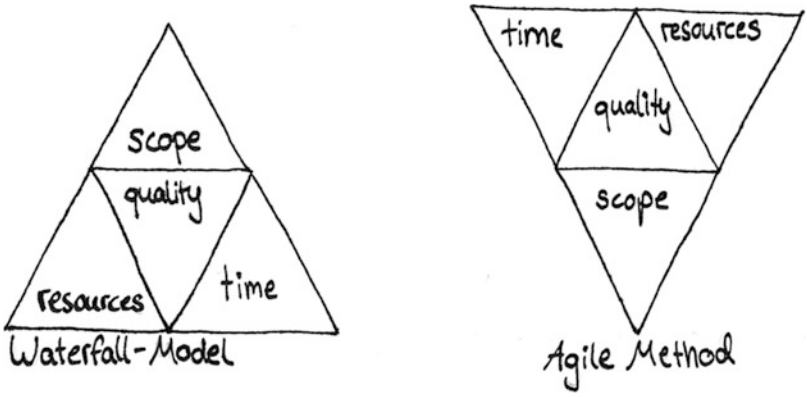

Fig. 1.6 Waterfall—model vs. agile method

Correcting the errors at this late stage is correspondingly more expensive than an earlier revision would have been.

To counter the problems of the waterfall model, numerous agile procedures for IT development management have been created, and these procedures are characterized above all by their high flexibility. This flexibility is enhanced by a different planning approach, as in Fig. 1.6. In contrast to the waterfall model, in agile procedures, the scope—i.e., the scope of the work package—is fixed, and resources and time are allocated according to availability so that only what is feasibly achievable with the available resources is done. This procedure prevents the accumulation of change requests and reduces the number of unrealistic goals. Wishful thinking is adapted to reality and not vice versa. However, it should be remembered that while the agile approach solves the central problems of the rigid waterfall model, but it does have some disadvantages. Due to the autonomous working method of the executing teams, the client has certain limitations in terms of planning reliability. It is comparatively difficult to estimate which result can be expected at the end of certain sprints. Measuring the overall success is correspondingly problematic.

Especially at the beginning of a SAFe® implementation, for example, it should be decided individually for each project and by each company which process model best suits the requirements. Experience has shown that combining waterfall and agile models is the method that is most likely to achieve the desired success at the beginning. For this purpose, a long-term plan is drawn up based on the thinking behind the waterfall model. The individual phases, on the other hand, are not so rigidly separated—overlaps and reviews are allowed. In addition, it is possible to include some sprints during the individual phases to complete certain subtasks. In this way, a healthy mixture of planning security and flexibility can be achieved to successfully complete the project. As the project progresses and the organization members become more surefooted in dealing with agile methods, the elements of the waterfall methods can be continually reduced until the complete agile framework is achieved.

The introduction process also involves establishing a new subculture against the background of a hierarchically structured company with fundamentally different procedures and behavior. For example, SAFe® (Scaled Agile Framework® 2018) is a scalable and configurable framework that is freely available on the Internet. SAFe® supports companies in delivering new products, services, and solutions with the shortest and most optimized lead time with the best possible quality and benefits. SAFe® is based on extensive, practically applied knowledge based on lean-agile principles and values. It provides guidance on the roles, responsibilities, artifacts, and activities necessary to achieve better business results.

The core of the SAFe® framework is the scaling of Scrum activities (plan, execute, review, retrospect) at the program level. Product increment (PI) planning involves a 2-day planning workshop held with all program participants to plan the activities for the next 8–12 weeks. During the executive phase, the teams work in iteration cycles (sprints) of 1–2 weeks, as done in Scrum. At the end of an innovation planning (IP) cycle, there is an adapt and innovate (A&I) workshop where a systematic review and retrospective study are performed. SAFe® uses the metaphor of a train. The agile release train (ART) represents the program, which leaves the station with all participants after the PI planning and does not enter a station again until the next PI planning. Between the stations, the train is therefore not accessible from the outside. This ensures that all participants can work effectively and undisturbed during the execution phase. At the same time, they have the opportunity to make necessary adjustments to customer requirements, the market and competition tactics in the next planning workshop for the next iteration within the team or PI planning (Siedl 2018).

The most important principle is customer satisfaction, i.e., the timely and fast provision of a high-quality service or product. Change requests, i.e., requests for changes to the product during production, are always welcome. In contrast to the waterfall principle, there is no editorial deadline. The third principle involves the regular delivery of modules in relatively short periods of time. Cooperation between the specialist department and IT specialists also promotes the achievement of the set goals and should be structured in such a way that everyone is motivated and pulls together. In-person appointments are essential to keep the meetings as efficient as possible and to enable repeated discussions of functioning subcomponents, e.g., of a software, for benchmarking over the course of the project to assess the project's success. Business processes should be subordinated to agile development and should not slow down or prevent sustainable development. The pursuit of technical excellence and good design promotes an agile high-performance culture in combination with a simple structure to ensure success. By regularly reflecting on the work, participants can achieve highly effective development so that the best architectures can be produced by self-organized teams (Gibbons 2019b). These principles can of course also be applied to non-SW development projects because of the basic working methods employed, e.g., reflection on the current work instead of feedback discussions, the simplification of processes, and the completion of partial components instead of a complete system in a large, overarching procedure.

Agility defines how and where work is done, i.e., across functions, and is characterized by less hierarchy and greater focus on real business problems. Agile working practices build on structure, precision, and transparency, enabling greater flexibility and faster decision-making. Agile working can initiate a paradigm shift and increase productivity, quality, and speed in projects (Handscomb et al. 2019).

Various studies have described the development of general agile methods and their most important elements and functions as well as the advantages and disadvantages of the available implementation strategies (Fischer et al. 2017; Weckmüller 2017) Suggestions about who should/can/must introduce agile management are also frequently given. The same applies to the differences in implementation based on the size of the company, including its general situation. Finally, there are not only conducive conditions, such as openness, proximity, and transparency, but also obstructive framework conditions, including the distance in the relationships of organizational members. Of course, managers are highlighted due to their special role model function in the context of the self-organization of teams.

In these studies, however, it is noticeable that no or only very few cross-references or connections among the existing corporate culture, the changing character of these activities, and the significance of the emotions associated with them are established (Smollan und Sayers 2009). The outstanding relevance of these two categories becomes apparent whenever problems arise. This can be seen as an indication that agile management has not been scaled. Gibbons (2019b) refers to a Scrum study that found that approximately two-thirds of all agile users believe that tensions with non-agile organizational areas are a problem.

A traditionally hierarchical company can usually easily deploy a few agile teams throughout the organization. Issues the teams experience with conventional procedures can be resolved through personal interventions and workarounds. However, when an organization establishes several teams in a large number of areas, such pragmatic solutions are no longer possible. Agile teams will advance everywhere. The traditionally structured parts of the organization will usually defend the status quo and, as with any change, skeptics of the agile movement can and will put all kinds of obstacles in the way—from refusing to stick to an agile schedule to refusing funding for new ventures with unfamiliar solutions. A management team that wants to implement agile methods in the company must therefore also anchor agile values and principles throughout the entire organization—even in those parts that are not yet structured on the basis of agile principles. One approach consists of, for example, developing and implementing new leadership principles to make it clear to all employees what will be different when agile work becomes the center of corporate culture (Rigby et al. 2019).

One example is the finance department, which is tasked with preparing audit-proof annual accounts and is not very interested in swarm management. This is where compliance is important, not the next standup, sprint, or retrospective stage. Compliance with stricter accounting regulations is very important, so it is not easy for everyone to jump on the agile bandwagon. This very often leads to conflicts and emotional discussions, which can have a major impact on the success of the entire project. Whereas conflicts used to be dominated by classic hierarchical issues—for

example, the chief-developer relationship—in agile environments, there are more horizontal conflicts with equals. It follows that having a different level of agility in different organizational units will tend to paralyze the groups involved. The benefits, among other things, cannot then be realized (Handscomb et al. 2019).

A critical view on the topic of agility seems to be necessary because agility is obviously also a fad. Three developments that arose near the end of the twentieth century have been outlined above; they were positioned at that time as a source of salvation and a guarantee of success. Unfortunately, this has not been entirely borne out in reality, so what follows are some thoughts on the use of agile methods that encourage a conscious use of this framework.

Management and consulting modes bring aspects of leadership, cooperation, or organizational understanding to the fore in order to increase or improve the relative success and/or adaptability of an organization compared to its competition. Agile management naturally positions itself as a further development, an improvement, and a new and correct way of leading, communicating, cooperating, and organizing (large) social systems. A further reason for the success of agile methods is seen in societal changes—the keyword here is demography or new work—and deriving from such methods is the pressure and need to adapt, which include changes to one's way of working and doing business. Eidenschink (2020) distinguishes, for example, three ways of understanding agility—as a trend, a developmental leap or an evolutionary, changing pattern. He understands agility as a trend that represents a way of thinking and acting and is expressed, among other ways, through the polarity between fast/fundamental and change/maintain. Eidenschink notes that this trend involves looking for ways to become faster, more flexible, or more customer-oriented and offers different processes, structures, methods, tools, principles, and values. This is how agility is often understood. Nevertheless, this understanding has led many organizations to change something, forcing the "old" to justify itself. Change occurred and was itself criticized. Thus, the tension between, e.g., the abovementioned poles, is renegotiated and readjusted to fit and function in a changed environment (VUCA).

If one understands agility as a developmental step towards a (higher) level of development, then one has to consider it as the smart thing to do. Eidenschink (2020) formulates this very provocatively, emphasizing that this behavior results in becoming an evangelist:

> One believes in the improvement of the world and holds a tool for it in one's hand. One must then take care that the (new) gospel—manifesto, charter, etc., from case to case—is interpreted correctly. New roles are created: Experts, guardians of pure doctrine, missionaries, dissenters, cardinals and, with the passing of time, self-appointed dogmatists, ordained priests (licenses!) and councils, which are now called congresses. One inevitably finds followers and pioneers, congregations, circles, products, companies are formed, which stand for agility and sell it. There are conflicts of interpretation about the "right doctrine", there are dissenters and others who mix different holy scriptures and set up collateral lines of preaching. All this is an immediate and expected consequence of thinking in terms of developmental stages and world improvement.

The reader will probably immediately associate the trend of agility with the roles and structures mentioned above. Such an understanding has many advantages because it creates identity, and one knows that one is on the right side. However, as already described, not only does agile management have its advantages, but new conflicts also arise. Disorientation in the organization can spread because people within the organization have different knowledge bases and ideas regarding agile implementation. Finally, agility may become a source of hope that cannot, however, fulfill the promise of establishing a humane working environment.

However, Eidenschink sees a third way that agility can be understood, namely, as a pattern of changing and evolving processes. Evolution, unlike development, is blind. It has no goal, no intention, and no interest. Evolution does not "improve" anything; it varies and selects. The output is uncertain. Extinction is possible. Thus, agility is not an improvement but rather an answer to another process pattern.

To which mutation in the environment might agility then be a reaction? What has changed so that agile thinking and acting are better suited for the situation than the previously prevailing organizational paradigm? Obviously, hierarchical control has reached its limits of performance. The usual keywords associated with this phenomenon are VUCA, increased complexity, or even digitalization. If this were a correct assumption, then organizations would indeed have a great need to reorganize themselves differently to cope with the new world.

According to Eidenschink (2020) the evolutionary change in patterns in agile management consists of the abolition of hierarchy, i.e., "working topless." This can be done on the team level, but there are still products and solutions to be considered and business owners who have to make clear decisions regarding products and financing. This means that agility only introduces a different form of hierarchy:

> This does not orient itself by the distinction TOP or BOTTOM, but by the distinction outside/inside. Simply spoken: The benefit recipient becomes the boss. Here, one can leave open whether the service recipient is the external customer or a subsystem of the organization. In any case, the level of non-knowledge, uncertainty, and instability increases with the service provider, which was previously intercepted by the "top". Nowhere is there no boss who does not know what to do, who knows fast enough and who can reliably tell the many people 'That's the way! So, it is no wonder that new answers are being sought on how to find out what and how to be successful or how to even finish on time. One of these answers—and a highly intelligent one at that—are the agile concepts. Circularity, multi-brain thinking, multi-perspective dialogues and multi-human action, fail early/learn quickly, heterarchical structures, continuous negotiation processes about prioritization and limits of the mission—all this and much that is unnamed thus become, in my opinion, identifying features of an evolutionary paradigm shift.

In this sense, "agility" would be a response to an evolutionary step that has led an entire society away from a clear world built on certainties and towards a multicausal world.

1.4 Summary and Conclusion

This chapter described trendy, popular, well-known and, thus, frequently used methods of change management and innovative agile frameworks that are available but not (yet) widely used. The requirements for managers in the digital transformation and the emotion economy were also outlined and analyzed against the background of these megatrends, and the need for additional refinement of these processes was presented. The importance of emotion in the design and management processes was elaborated, and it was found that the integration of the existing approaches into a comprehensive agile change concept is only rudimentary. It is therefore not surprising that the rapid or sustainable success of many change projects in the digital world has been limited. There are many reasons for these lackluster performances, including a lack of methodological competence or even the inability to handle digitalization. It is astonishing, but many companies attempt to make do without these skills in their personnel development plans; instead, the development of specialist knowledge is pushed forward without support. This is certainly wrong, but as already explained above by Brynjolfsson and McAfee (2014), for every $1 that is invested in technology, $10 must be invested in organizational and process design to be successful. However, there have always been megatrends. It is worth remembering the book by Naisbitt from 1984 (Naisbitt 1984), which described ten developments that would significantly change the economy and society. These included trends such as the transformation from an industrial society to an information society, from north to south, and from forced technology to high-tech/high-touch technology, which were presented in slightly different forms at the beginning of the chapter.

Therefore, technological change or digitalization is not necessarily new; it is the context that has changed; the new context is much faster and more dynamic than that in the past. Changes have also rarely occurred overnight but have unfolded over a certain period of time, which is admittedly shorter today than 50 years ago. However, the paradigm of change is the same; changes take place, and those who want to stay in the present or even in the past have no real chance to be successful. In other words, the basic skills needed to adapt to new circumstances are there, the natural sciences and humanities have helped individuals advance, and numerous new procedures and approaches have been developed and made available and must be used. Change management itself is also changing and adapting to the new circumstances by enabling more flexible, simultaneous and focused work that is supported by modern IT tools such as social networks, apps, and other applications that can facilitate communication and distribute information worldwide. Of course, these digital toolboxes are no substitute for manual work because change is frequently connected with people in difficult situations. The opinions and goals of individuals, teams, and entire organizations need to be transformed through an ordered process that can and should be supported by digital tools but should be carried primarily through personal creativity. However, this also requires a greater awareness not only of the tools and methods used but also of the social and psychological aspects of change. Today, if a firm's customer relationship is to be

established and strengthened in the platform economy, it will help to have a good understanding of the emotional foundations of the endeavor because those who do not know the meaning of enthusiasm, impatience or convenience are rarely able to build a relationship that takes these criteria into account and implements them. In addition to the use of agile principles in the customer relationship, which is the ultimate source of profit, many teams and departments have recently started to work according to agile principles, such as SAFe®. In large companies, it is common practice to work in international groups that speak in English and have intensive discussions. However, these groups are not free of conflict; they are often overlaid by other cultural experiences in which there is a completely different understanding of, for example, impatience. Group members must also be able to deal with these divergent experiences and understandings. In addition to issues related to peer relations, there may also be adjacent departments that do not work agilely because finance, HR, legal, or other administrative departments and functions work completely differently. Negotiating the budget for the next fiscal year can be long, laborious, conflict-laden, and aggravating. This, too, must be taken into account when starting a change project.

Next, the book will move to Chap. 2, which includes a description of common emotion theories and the origin and social function of emotion in order to provide a better understanding of the conceptualization of emotion in organizational culture as it will be discussed in Chap. 3. Agile change processes are discussed in Chap. 4. Then, Chap. 5 deals with innovative concepts for dealing with emotions, including the meaning of narratives; the role, function, and meaning of language; and emotion intensity. The integration and interaction of cognition and emotion are presented in detail in a case study. Finally, we will look beyond analog intervention instruments and present new digital applications that may make AI-based emotion recognition possible. Costs and benefits, ethical considerations, legal frameworks, and a final review in Chap. 6 conclude the text.

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What We (Can and Should) Know About Emotions Today

2

2.1 Emotions in Change Management Contexts

Surely, it is justified to ask why this chapter is important. The answer lies in discussions in the research on emotions in a management context. There have been numerous attempts to discuss the conceptualization of emotions in the context of organizational and corporate culture (Smollan and Sayers 2009) and change management (Doppler and Voigt 2018; Klarner et al. 2011), but there is often no clear definition or description of what the authors actually mean by emotions. In addition, the level under consideration is usually also unclear. That is, emotions are assumed to be primarily individual characteristics, although change and culture are concerned with groups, teams, departments, and organizations. A systematization and aggregation of emotion from the individual across all organizational levels of a company is not attempted or is only alluded to.

The five-level model of emotions in organizations, developed by Ashkanasy and Humphrey (2011) and shown in Table 2.1, serves as a guide for describing the emotions present within an individual, between persons, and in interpersonal, group and team relations as well as across an organization as a whole.

This model helps explain not only that having a conceptualization of emotion is useful for the individual on the level of psychology or coaching but also that knowledge of history and sociology is helpful in understanding emotional events within teams or an organization and thus in achieving a better, more appreciative handling of emotions in organizations. Below are some examples of how academics and practitioners of change management consider and conceptualize emotions.

Smollan and Sayers (2009) discuss discrete emotions but give no indication as to whether there are dynamic emotions. However, they are among the few authors who explicitly subscribe to a specific school of thought:

> Organizational change has the potential to trigger positive and negative emotions and moods in the employee, which depend on a range of factors. These include the perceived valence of the outcomes, the change processes that are used, the speed, timing and frequency of change,

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Table 2.1 The five-level emotion model in organizations based on Ashkanasy and Humphrey (2011)

Level	Unit	Examples	Behavior / Performance
Level 5	Organization	Leadership creates emotional climate, regulates rules for displaying emotion	Organizational behavior and performance
Layer 4	Groups, teams, departments	Direct leadership of teams, team emotions	Team behavior and performance
Level 3	Interpersonal	Perception of emotion in one's counterpart	Emotion in the relationship and cooperation
Level 2	Between individuals	Different characters, management styles	Rationalized behavior, e.g., decision-making
Level 1	Individual	Emotional events trigger emotional reactions	Individual behavior and performance

> the nature of leadership and the employee's personality and emotional intelligence. (...) The culture of the organization can also play an important role in both generating emotions during change and influencing their expression or suppression. In particular, the affective culture, the taken-for-granted ways in which emotion at work is dealt with, may help or hinder employee adjustment on an individual level. (...) The social constructionist perspective of emotions takes the view that emotions are phenomena that are culturally mediated and developed through interaction in social relationships. Cultural factors influence not merely the experience of specific emotions (such as shame, anger or pride) but also influence how appropriate their display is (Smollan and Sayers 2009, p. 436). Commenting on this approach, Callahan and McCollum (2002, p. 14) indicate that 'emotions are created or constructed as part of a common sensemaking process in social structures' and that 'social constructionism knits together the personal and the social'.

Klarner et al. (2011) emphasize the importance of the dynamic character of emotions to meet the process characteristics of change projects:

> (...) we argue that a static, orthogonal definition of emotions is problematic since it does not capture the process dimension of emotions (...) and their continual and mutually informative nature (...). We offer a component process definition of emotion (...) that incorporates the dynamic, evolving dimension of emotions and allows for multiple emotions to coexist. In addition, psychological stage models of emotions cannot fully account for the complexity of change. (...) Scholars examining employee emotions during sequential changes are advised to analyze how emotions evolve within and across different change processes; to study how emotional experience accumulates over time and impacts cognitive appraisal; and to examine how the timing of changes and emotional contagion impact employee emotions and their coping behaviors (Klarner et al. 2011, p. 338).

The view of Klarner et al. (2011) is described as trend setting because they clearly show that emotions have an evaluation component, i.e., they can be assigned to the "evaluative" or "appraisal" tradition of thought.

Doppler and Voigt (2018) refer explicitly to Darwin and Goleman, i.e., to the motivational school of thought, in order to emphasize the importance of emotions for survival:

> Evolution (...) has given us an emotional balance that is primarily directed towards survival, reproduction and expansion. It also feeds intuition and empathy—(...) as well as the ability to quickly evaluate how we should behave in particularly delicate situations. It is not the mind but the emotions that are the real source of energy. (...) And the emotions represent an automated, but always adapted signal and alarm system, which helped and still helps us to survive (Doppler and Voigt 2018, p. 16).

They combine this initial idea regarding emotions with Goleman's approach, which made Ekman's research known to a broad audience:

> Emotional intelligence is a combined performance of emotions and mind (...) for example, to perceive the feelings of oneself, but also of others, to express one's feelings well, but to control and regulate their expression, i.e., to adjust form and intensity to the respective situation and its context (Doppler and Voigt 2018, p. 21).

This should then lead to social competence as a central success factor, which should support people in solving problems and building social relationships. They assume that it is important to recognize and understand the motives and drivers that trigger negative feelings, particularly envy, malice, anger, and resentment.

The hope is that these negative emotions can be rerouted in a constructive direction. Emotions also have a social dimension, i.e., the expression of anger and rage by, for example, a manager towards his employees, creates distance and leads to a better fulfillment of tasks—at least in the short term. In the long term, this behavior may make employees more likely to consider leaving the department or even the company. Additionally, their adherence to what Ekman describes as basic feelings, e.g., joy, pride, anger, sadness, will be difficult to maintain and will shorten group discussions in a change context.

The concept of emotion can therefore also be viewed from different perspectives. It can be considered on the one hand on the basis of traditions of thought and on the other hand from the perspective of the progressive development of tension. Both view will be presented below with the goal of establishing an understandable reference to change management and avoiding becoming bogged down in an extensive—although certainly interesting—theoretical discussion.

2.2 Introduction: Schools of Thought in Emotion Research

The following is an overview of the current theories in emotion research that can help in making a conscious decision regarding emotion-based intervention strategies (Scarantino 2018).[1] Chapter 5 deals with the topic of AI in emotion recognition and the necessity of a sound theoretical background to be able to assess the benefits, costs, and ethical implications of such an application. For example, the question arises as to whether it is actually possible to recognize, analyze, and evaluate the emotional state of a person based on their facial expressions. What are the consequences, what do these results mean and what can be done with them? Of course, this section can provide only an overview and not a detailed presentation of the individual schools of thought; to do otherwise would go beyond the scope of this book and dilute its objectives. If one wishes to know more on this subject, one should consult the literature referenced herein.

"What is emotion?" is a naturally difficult question to answer. Depending on the respective scientific discipline of the research, very different answers can be given. Indeed, history, philosophy, theology, rhetoric, medicine, and literature have long dominated thinking about emotions. Only from the middle of the nineteenth century, with the emergence of psychology, and the twentieth century onwards, due to developments in the neurosciences, were these disciplines pushed into the background and sovereignty over the interpretation of emotions moved to the life sciences.

The number of definitions surrounding the topic of emotions has increased continuously, e.g., in 1980 already, an English-language journal for experimental psychology counted 92 different concepts related to emotion. This number is probably even greater today due to the influence of neuroscientific research.

Basically, emotion research can be divided into three major schools of thought, namely, feeling theory, motivation theory, and evaluation theory, which in turn can be divided into 15 subcategories. In Fig. 2.1, a schematic diagram is included to illustrate the branches. These individual streams have developed over time, and although the respective representatives of the different emotion theories cannot agree on a generally valid definition of emotion, they recognize some common diagnostic characteristics of emotions. The following example will illustrate this: Your boss comes to your workplace and reports that unfortunately, your promotion will not happen this year, even though you have met all your performance targets over the last 5 years. You are extremely angry about it.

Various emotional characteristics can now be observed. First, an assessment of the situation takes place, resulting in a perceived insult. Physiological changes, e.g., an increased pulse, sweating or stomach pain, are perceived, and at the same time, your facial expression and posture change, followed by an unpleasant, subjective willingness to behave aggressively. Your mental processes and behavioral

[1] Unless otherwise indicated, the description in this section is based on the contribution of Andrea Scarantino in the "Handbook of Emotion" (Scarantino 2018).

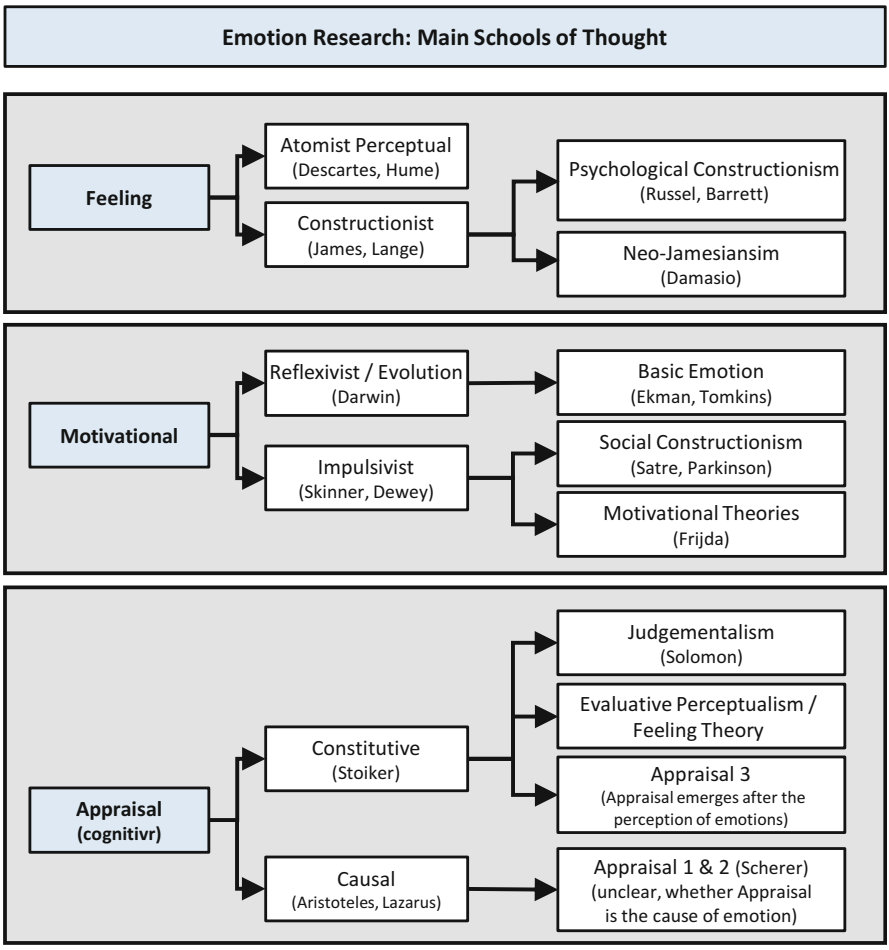

Fig. 2.1 Overview of the main schools of thought in emotion research based on Scarantino (2018)

disposition also change. This hypothetical episode of anger now shows characteristics described by all three schools of thought mentioned above, but the schools disagree about whether such anger can do more good than harm.

In summary, the following can be said about emotions:

- Emotions are current states of individuals and can be distinguished from current emotional episodes (e.g., anxiety) and emotional dispositions (the tendency of an emotion to occur).
- Emotions have a certain quality, intensity, and duration, and the kind of emotion (joy/anger) and the intensity of the emotion describe a strong/weak expression of that emotion.

- Emotions are usually object-oriented, and the object can also exist only in the imagination or only in future, e.g., joy about something, being proud of something.
- Emotions are accompanied by characteristic experiences, behaviors, and physiological changes.
- Emotions offer an experiential aspect or characteristic "feeling" with a subjective component that cannot be observed.
- The physiological aspects of emotions include peripheral physiological changes, e.g., blushing, an increase or decrease in heart rate, changes in breathing, sweat, and intestinal movements.
- Emotional regions are activated in the brain and trigger behavioral changes, e.g., the generation of facial expressions; altered gestures, posture, speaking voice or body orientation; and involuntary body movements.
- An instrumental aspect (action) can be identified, and this may consist of, for example, fight or flight behaviors.

These statements summarize the discourse of academics and practitioners. An overview of the individual arguments of the different fields of thought can help in making an informed decision in real life regarding how to deal with emotions.

2.3 Elements of the Three Schools of Thought

2.3.1 Feeling Tradition

The feeling tradition says that emotions are a unique kind of feelings; and a feeling describes a conscious perception, sensory impression or subjective quality in the experience. This view was prevalent from the time of Greek philosophers until well into the twentieth century because in many aspects, it sounds quite plausible even to nonexperts. In fact, the heyday of the feeling tradition can be placed in the seventeenth century.

Rene Descartes formulated his theory of dualism—the simultaneous existence of the soul and body—in which the seat of emotions is the soul and represents perceptible feelings or "psychic atoms." Hence, the coining of the term "atomistic perceptualist approach" in this school of thought regarding feeling. The core thesis of body-soul dualism is based on three assumptions, namely:

1. There is an undeniable, nonmaterial, and nonextended "thinking substance," often called the soul. In short, this soul includes one's spirit and consciousness and does not necessarily obey the laws of nature.
2. There is an extended and material substance (the "world") that exists independently of the soul, and the human body also belongs to this external substance. This world obeys the laws of nature.
3. Finally, body and soul belong to two fundamentally different "substances" that can, however, causally interact. According to this "interactionistic

substance-dualism," both the soul and the world can exist independently as their own "substance" (hence dualism means: "containing two").

For example, the soul can migrate or continue to exist after death in paradise or hell, but the world does not cease to exist with the death of one (or the last) person. However, body and soul are not exclusively separate; they can also interact: the material affects the conscious sensation of the headache, and conscious thought, for example, causes the body to move. The belief of many people that there is a soul that exists independently of the body speaks in favor of body-soul dualism. However, this belief is essentially based on the hope that what constitutes a human being continues to exist in some form after death. However, the fact that there is no evidence of a soul existing independently of the body speaks against dualism. Numerous neuroscientific studies in recent years have shown that the connection between the brain and consciousness and between the body and mind is very intense, but it is probably due to the fact that the "mind" cannot see without eyes, cannot hear without ears, and cannot see or hear without the brain. A soul without body would therefore have no perception. This dualism is hardly discussed in science today and can almost certainly be confirmed as false. Additionally, there have been no further significant developments of this approach.

The second approach comes from William James and Carl Lange, who understand emotions as the perception of emotional physical reactions. In other words, when a stimulus triggers a physical response, this is perceived as an emotion, e.g., "I am afraid because I am trembling." The overall situation being perceived is important here; e.g., it makes a difference whether one is encountering a bear in the forest or a bear in the zoo. Furthermore, stereotypes and visceral changes in the internal organs (heart, lungs, stomach, etc.) are decisive, rather than the action that is being performed, e.g., fighting or fleeing. This is a reversal of common sense because before the theories of James and Lange, emotions were formulated the other way around—"I am trembling because I am afraid." This implies that different emotions also have different physiological patterns of arousal. The problem, however, is that not all emotions are clearly distinguishable on the basis of bodily reactions.

A further development of the theory resulted in Neo-Jamesian emotion theories, most prominently represented by those of Antonio Damasio. In 1994, Damasio formulated the theory of somatic markers, which states that the affective consequences of actions are physical reactions that are stored in memory as somatic markers, e.g., physical excitement such as sweating during a lecture. Physical reactions (sensory neurons) are linked to actions (motor neurons). If the action is then prepared or planned again, the physical reaction is also activated, and the fear related to giving the next lecture is tangible.

Additionally, there are embodiment approaches towards emotion.

In such approaches, it is assumed that all cognitions and emotions activate multimodal representations, e.g., the word "bicycle" can activate the images, smells, sounds, and body posture involved in riding a bicycle. The voluntary execution of emotional behavior can activate emotion components. For example, sitting upright might produce emotions such as pride, but sitting slumped in a chair produces

Fig. 2.2 Illustrating embodiment approaches towards emotion

depression or sadness rather than pride. It is also conceivable that walking with drooping shoulders or an upright posture could lead to a change in self-confidence. As depicted in Fig. 2.2. different body postures may indicate different emotions such as sadness, happiness, or indifference. However, this evaluation is subject to interpretation when just watching from outside. It might as well be the case, that the left person is searching the ground for his keys he assumes to have lost. The person in the center might be a bird watcher and is angry because he missed one of his favorite birds flying by. The right person just might be strolling along and is happy to be able to take some time off.

This view can be supplemented by further theories such as the dimensional emotion theory of Russel (2003) which is based on the assumption that there are no discrete emotions at all. Different emotions carry different characteristics, e.g., a low or high degree of arousal or intensity and a positive or negative affect, whereby the concepts of emotion are usually associated with prototypical episodes. For example, an episode may involve experiencing "fear of a bear," but such episodes do not occur very often. From this, it follows that emotions thus exist in many gradations of intensity and mixed forms and are thus often deviations from the prototype.

Prototypical emotional episodes therefore include:

- The object (person, event, action) that elicits the emotion
- The core effect of the emotion
- The appropriate behavior (fleeing or fighting)
- Attention to the object and an appraisal of the situation
- The experience, the emotion, and the physical changes that result.

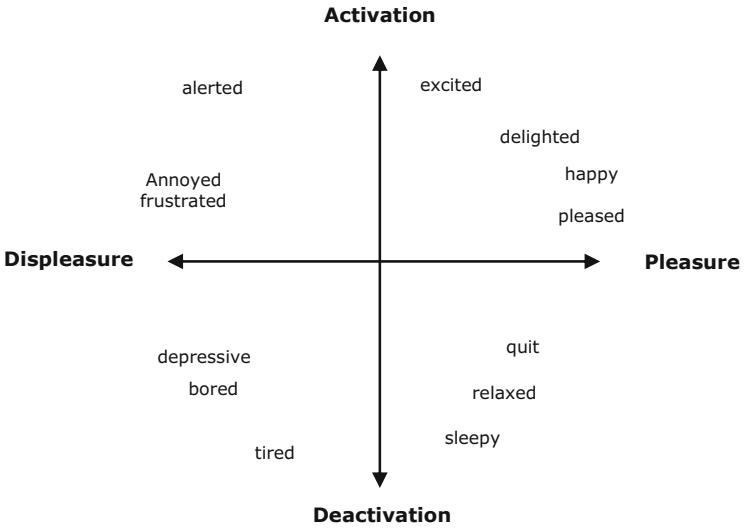

Fig. 2.3 Core effect as a dimensional structure based to Russel (2003)

The core effect, as in Fig. 2.3, is thus the most elementary, consciously accessible feeling, e.g., desire or displeasure, tension or relaxation, positivity or negativity, and thus the actual emotion triggered in an emotion episode.

A further development in this school of thought was psychological constructionism, proposed by Lisa Barrett (2017).

The definition of psychological constructionism is:

> In every waking moment, your brain uses past experience, organized as concepts, to guide your actions and give your sensations meaning. When the concepts involved are emotion concepts, your brain constructs instances of emotions (Barrett 2017, p. 31).

Barrett emphasizes that emotions are composed of "building blocks" that are not characteristic of any single emotion. An assumption in this definition relates to her view of how the brain works, i.e., that there are no specific regions in the brain that are responsible for certain things such as language or emotions but that certain neuronal systems take over this kind of information processing. For example, the degree of amygdala activity is not only increased in the processing of a state of anxiety but is also involved in the processing of sensory information about disgust, sadness, and happiness. In other words, there is no clearly defined anxiety center in the brain, nor are there biological fingerprints or dedicated regions for other emotions or physical-mental functions.

All perceived sensory information, e.g., heartbeat, breathing, abdominal tension, headache, and dizziness, is processed by the brain and given meaning within the respective context. This means that the perceived headache can indicate that a person has a cold or that they are feeling angry or upset. The prerequisite for attribution is based on mental concepts, i.e., the knowledge about the specific situation an

individual is currently in and his or her perception of the physical state and social reality. Individuals must know the rules for appropriately showing emotions, e.g., at the workplace. To achieve awareness of one's own emotions, one first needs to be in a good physical condition, i.e., getting sufficient sleep, eating healthy foods, exercising, and practicing mindfulness.

In Barrett's opinion, emotion research has for too long relied on traditional psychological categories derived from philosophy to search for the basis of emotions in the brain. In the last two decades, neuroscientific research has provided many details and insights on the functioning of the brain that may be enough to force a paradigm shift. These foundations also make it possible to understand what emotions are and how they work and to develop a new perspective on how emotions are processed.

Barrett postulates that emotions are created by each individual and are not universal, i.e., are not triggered. The neuroscientist starts from the assumption that the brain is "predictive," i.e., each person makes his own prediction about what will happen in the near future (Barrett 2017). This has practical implications such as enabling quick reactions to dangerous situations and being energy-efficient, since this process refers to past experiences and a solution is stored in the brain, so to speak. Thus, the brain is active and not reactive. Therefore, rather than reacting to external stimuli, the brain compares these stimuli with past experiences to produce the best possible or most appropriate behavior in a given situation. Rock and Ringleb (2013) coined the phrase "expectations shape reality," meaning that our expectations affect the near future. This generation of predictions takes place in different neural brain systems.

This finding is still relatively new and also comes from connectome research (Sporns 2012), which states that instead of local delimited areas in the brain, neuronal connections exist, for example, a core system or peripheral systems with special tasks. The interaction of the physical properties of the body and the brain generates an enormous range of emotions that influence behavior within and across all cultures. These interactions are also affected by environmental conditions and the duration of an experience. From this, it can be concluded that emotions are learned concepts that are firmly rooted in culture and individual experience. They can therefore fulfill different functions. For example, anger can be expressed in different ways depending on where one is and who one is interacting with, whether the encounter is taking place in a private environment, and whether it is appropriate for anger to be expressed towards that person (Barrett 2017).

In the discussion that follows in Chap. 4 regarding change, culture, and emotion, this theory is referenced. In my opinion, it is the only idea that allows emotions to be introduced systematically in a work context, since individually perceived emotions can also be addressed in a team without immediately coming under suspicion for having shown too many feelings. The role of language, as shown in Sect. 2.6, is also crucial because language is an important channel of daily communication. Through language, it is possible to clarify the meaning and content of emotion words so that communication can be less ambiguous. Additionally, using the core effect model, emotions can be visualized in groups, and conclusions can be drawn about the mood

within teams or even larger groups. This pragmatic approach makes it easier to handle difficult topics such as emotions in the context of work.

In summary, it can be said that emotions are a conscious experience and that individuals have the ability to attribute emotions to other people. Humans' cognitive faculties make it possible to talk about emotions and express them.

2.3.2 Motivational

The motivational thinking tradition holds that emotions describe a distinctive motivational state or pattern of behavior. Within this line of research, "impulsivist" and "reflexivist" veins can be distinguished. The first equates emotions with behavioral impulses, e.g., dispositions or a willingness to engage in certain forms of behavior, while the second describes emotions as reflex-like behavior. After a brief description of these different approaches and of how this tradition emerged, an examination of the concept of basic emotions, an approach that is still very popular today, follows.

The philosopher John Dewey can be considered the founder of impulse theory, which resulted from his attempt to combine the feeling tradition of James with the insights of Charles Darwin. The main problem with this combination revolves around the question of what comes first. James claimed that first, a physical reaction such as trembling occurs, and then the emotion is perceived. Darwin, on the other hand, postulated the opposite: first, the feeling of fear is perceived, and then, the physical reaction of trembling takes place. This contradiction cannot be resolved. The further development of impulse theory on the basis of Darwinian thought resulted in the evolutionary theory of emotion. As we have already seen above, Doppler and Voigt were influenced by this approach and used it to elaborate their own conceptualization of emotion in change projects. Darwin discovered the principle of natural selection, i.e., an inherited trait exhibits variation, and selection pressure from the environment leads to the increased reproduction of organisms with a certain expression of the trait. According to Darwin's theory, emotions have developed in the course of evolution to promote specific adaptive behavior, e.g., "fear" helps organisms avoid danger and "disgust" helps organisms avoid disease. "Being in love" has been explained as providing an advantage in searching for a partner or in reproduction, as well as "anger" and "resentment" regulate conflicts in a group. According to this theory, emotions have an effect on conscious experience, physiological arousal, internal organs or hormones, cognitions, and action control. Emotions therefore have a functional characteristic intended to prepare an individual's body and mind to exhibit the best possible adaptive behavior. Fear, for example, can be accompanied by a change in attention—"Has something moved?"—to ensure survival. However, this evolutionary theory analysis does not provide verifiable hypotheses or explain a mechanism; it only explains the plausibility that emotions provided or could have previously provided an evolutionary advantage.

One result of the continuous development of motivational theory is the reflex approach, first formulated by Watson. This approach can be assigned to the category

of behaviorism, which, in its radical form, excludes any internal psychological processes and attempts to explain emotions exclusively through observable behavior. Emotions are therefore reflexive behavioral patterns that encompass all body functions. The so-called pattern reactions occur regularly, with a certain constancy and in the same order whenever the corresponding stimulus is presented. Emotion is therefore caused by a stimulus and the resulting behavior. Mental processes and internal states are not considered part of the process, but behavior cannot be adequately explained without emotion. In the 1950s, however, this research direction declined in popularity because it left too many problems unsolved and the theory's framework could not be confirmed.

As this approach developed, six basic emotions were postulated based on an analogy. Thus, the theory states that the organs of the body cannot be understood unless it is known how they work. Similarly, emotions cannot be understood if one does not know what purpose they serve. The six emotions are fear, anger, disgust, curiosity, joy, and sadness; these are independent of other emotions that also exist in animals, can be triggered by internal stimuli and can manifest themselves in instinctive behavior. Ekman is considered the founder of basic emotion theory, which was popularized among a broad public in the 1990s by Goleman through the concept of emotional intelligence and is still used today in various facets of organizations. Ekman's basic assumption concerned physical reactions, especially facial expressions, when emotional states are present. The basis for the perception of an emotion is that an inevitable cascade of physical reactions is associated with it; e.g., anger, sadness, and joy are always associated with the same universal facial expressions. Critics, however, see numerous problems with this view, since the facial expressions that are actually displayed depend on cultural "display rules," as can be observed, for example, when comparing the emotional expressions of people from different countries. Cultural differences become especially apparent when emotions are shown in a group. Furthermore, the exact number of basic emotions is unclear because different theories postulate different basic emotions and there are no clear criteria for what constitutes a basic emotion. The neglect of sociocultural factors should also be viewed critically, since the same emotion words can describe different emotions and some emotions exist only in certain cultures (e.g., honor) and change in their meaning over time. As a final point of criticism, it should be mentioned that there is no evidence supporting the claim that emotions are the cause of bodily reactions and that changes in the perception of physiological characteristics and sensory perception are the result of emotion.

Another variation in the motivational school of thought is social constructivism, which addresses the cultural variability of emotion. The central point in this variation is that emotions have a social role or function and thus represent a solution for social conflicts and interpersonal problems.

The problem of the differentiation of emotion can be solved to some extent, but other fundamental questions remain unanswered. Scarantino (2018) formulates this criticism as follows:

> The idea is (...) that behaviors are not sufficiently fine grained to distinguish among different emotions. This problem is (...) biting for the reflexivist approach, which is committed to the assumption that behavioral responses are reflex-like but has failed to marshal convincing evidence for the existence of behavioral signatures for different discrete emotions. But the problem also affects the impulsivist approach, which faces a variety of potential counterexamples to the claim that any two emotions are differentiated by the action tendencies they involve (Scarantino 2018, p. 24).

For example, grief or depression triggers little or no motivation to do something. Past emotions such as regret are closed episodes, and it is not clear what kind of motivation can be linked to them. The idea of the "change curve" has already been discussed in Sect. 1.3.1, and the considerations here underline once again how little from such concepts can be transferred to the world of digital change. These open questions have led, among other things, to a shift in the focus of emotion research towards appraisal or evaluative theory. Cognitive states and mental processes in the individual are considered fundamental in the search for explanations of the existence of emotion.

2.3.3 Evaluative

The evaluative tradition states that emotions can be distinguished by a judgment or evaluation linked to a perceived feeling, which are usually a cognition, interpretation, thought, judgment, or construct or any other type of mental representation of the triggering circumstance or stimulus. Scarantino (2018) distinguishes between the "constitutive" approach and the "causal" approach.

The constitutive approach postulates that emotions are ratings, while the causal approach holds that emotions are caused by ratings. The constitutive approach has its origins in the philosophy of the Stoics, that is, the philosophy of passions, where passions are seen as a misjudgment of the appropriateness of a behavior. The philosophy of the Stoics had a distinct influence on the emergence and development of appraisal theories by introducing the aspect of valuation into the discussion. While some researchers, as seen above, have developed their ideas in various directions, many other concepts have proven to be unsubstantiated. In the nineteenth century, Brentano and his student, Meinong, introduced the idea of emotions being object-oriented, implying that the perception of emotions requires cognitive representation. The seeds were thus sown so that in the 1950s and 1960s, philosophers and psychologists could further develop this approach. They pursued two objectives: first, resolving the contradiction in previous theories—the object orientation of emotions and normative access to emotions—and second, determining the cause of the emergence of emotions. These approaches resulted in the evaluative theory of emotion and the appraisal theories of psychology.

One manifestation of the constitutive approach is "judgmentalism," which initially seemed to solve many of the problems within existing approaches. It provides a straightforward explanation for the characteristics of object orientation, differentiation, and appropriateness of emotions, since the content of the judgment is

decisive. However, judgmentalism was not widely accepted because, among other things, it could not explain the motivational character of emotions. Additionally, no explanation could be provided for which emotions precede or cause a judgment. The greatest issue, however, was that "judgmentalism" was not able to explain the emotions of children and animals.

A subfield of the evaluative perceptualism approach is the situative approach, which views cognition as embodied, embedded, enactive, and extended. Scientists taking this approach focus on the connection between emotions and physical and environmental processes or their embeddedness in those processes. Certainly, numerous interesting results have been found in such research, but none with fundamental importance for dealing with emotions have been found.

The second approach within the evaluative tradition is the causal approach, which was developed by Magda Arnold and Richard Lazarus, among others, in the 1960s. They wanted to determine how the perception or evaluation of an emotion can cause physical change.

In other words, they wanted to explain how an emotionally relevant assessment of a situation, object or event can be judged to be relevant to one's own well-being. This assessment includes sensual-automatic judgments that are nonreflective, direct, immediate, and nonintellectual. For example, a situation may prompt one to ask: "Is the dog there a danger to me?" Emotions can be explained by different appraisals of a situation, and thus cognition is crucial for the development of emotions. All theories in evaluative perceptualism hold that such appraisals contribute to the differentiation of emotions. For example, Arnold developed an overview of possible components of the appraisal process. The elements of emotionally relevant cognitions include:

- Anticipation: Is the stimulus expected or unexpected?
- Security: Is the stimulus safe or unsafe?
- Motif relevance: Is the stimulus relevant to my goals or motives?
- Motive congruence: Is the stimulus beneficial or detrimental to my goals or motives?
- Fault or merit: Who is or was responsible for the stimulus?
- Controllability: Can I prevent or induce the stimulus?
- Coping potential: What options do I have to cope with the stimulus?
- Congruence with standards: Is the action that follows the stimulus morally good? Is it praiseworthy or reprehensible?

Thus, such cognitions render the internal structure of the evaluation process visible by modularizing the emotion process, which had previously been considered a uniform process. A triggering situation or stimulus could then be broken down into individual components that could be examined independently of each other. For example, the cognitive cause of anxiety could be described as an evaluation of an event that allowed different perspectives, i.e., good, bad, absent now but possible in the future, difficult to avoid.

Lazarus's cognitive-motivational theory extended this model by distinguishing among a primary appraisal, secondary appraisal, and reappraisal.

A primary appraisal concerns the target's relevance, i.e., an issue concerns one's own motives or targets because if the target is not relevant, no emotions arise. The congruence of goals helps in assessing whether the facts are conducive or obstructive to achieving a goal in a given situation; congruence corresponds to positive emotions, and incongruence corresponds to negative emotions. The type of ego involvement is also relevant: i.e., is there a threat to one's reputation or current status? The violation of moral norms such as guilt or a threat to the ego ideal through shame are addressed in a primary appraisal.

The secondary appraisal concerns guilt or merit, e.g., pride is perceived as an emotion only when it comes from one's own merit, and guilt is likewise perceived only when it stems from one's own responsibility. Finally, coping potential is assessed because coping becomes possible by attenuating negative emotions. This can be done in three ways: problem-, emotion-, and evaluation-oriented coping. Problem-oriented coping can be affected by the situation itself, e.g., by intensifying the search for information or direct action or by refraining from action. In emotion-oriented coping, the reference to the situation itself can be affected by changing individual emotions, e.g., by reducing arousal. A reappraisal or reassessment of the situation can give positive connotations to the reformulation of previously negative situations such as stress at work, i.e., when stress results from an opportunity or new challenge, so that future-oriented expectations can also be included in the appraisal.

The component process model of Scherer represents another type of appraisal theory. The basic assumption in this model is that the differentiation of emotions is a result of the net change of different subsystems. Accordingly, five subsystems are involved in emotional processes, and each of these is still functionally defined:

- An information-processing subsystem that evaluates the stimulus through perception, memory, and/or prediction,
- A supporting subsystem that regulates the internal state by controlling neuroendocrine, somatic, and autonomic states,
- A leading subsystem that chooses between two competing motifs and the preparation of these motifs,
- An acting subsystem that enables motor expressions and visible behavior, and
- An information dissemination subsystem that is based on the assessments that are made.

The result can be the emergence of a familiar, discrete emotion.

In contrast to the previous approaches, Appraisal 3 theories deny a causal role of the appraisal process in the development of emotions. Instead, these theories are convinced that appraisals emerge only after the perception of emotions. Thus, any kind of emotion requires that the triggering stimulus be evaluated. However, this theoretical approach does not solve the problem of causing or triggering emotions. However, even in the other Appraisal theories, it is not clear whether the appraisal is also part of the emotion or only the cause of that emotion.

In sum, the entire school of evaluative thinking represents a very important contribution to the field due to its emphasis on the cognitive nature of emotions.

Emotions, as thoughts about and evaluations of perceived facts, play a major role in everyday life and can very adequately explain why the same situation can lead to different emotions in different individuals. Critically, however, there are often explanations and definitions of emotions that say too little about the actual origination mechanism of emotions. Lazarus, for example, presents a list of emotions as core topics of the human–environment relationship, but it is unclear how these definitions were formed or whether there are other views on the matter.

He defines the following emotions, among others:

- Anger: Being hurt and humiliated
- Fear: Experiencing an existential threat
- Grief: Experiencing an irretrievable loss
- Guilt: Breaking a moral standard
- Shame: Not meeting an important ego ideal
- Envy: Coveting the property of others
- Jealousy: Resenting a person for withholding something one desires
- Disgust: Coming into contact with or being near an unappetizing object
- Hope: Fearing the worst but longing for improvement
- Joy: Making good progress towards a goal.

2.4 Emotions from a Dichotomy Perspective

A different variant or display format, as in Fig. 2.4, is presented by the historian Jan Plamper (2012), who suggests juxtaposing a "hot" and "cold" core of emotion research to structure the developmental history of emotion research. The dichotomy perspective is constituted by a perceived contradiction comprising the natural

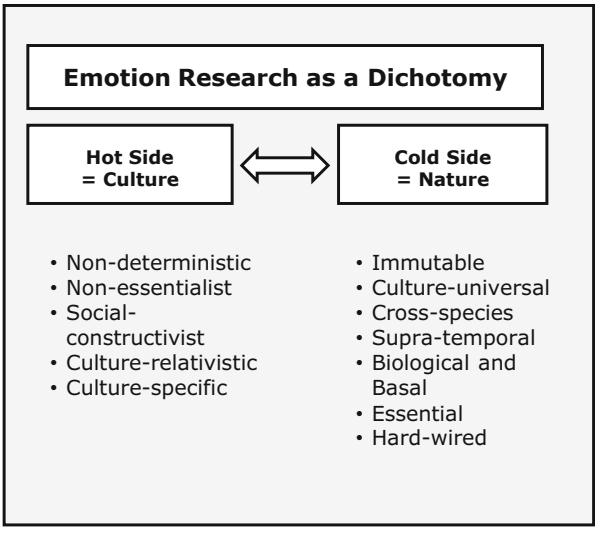

Fig. 2.4 Emotion research as a dichotomy based on Plamper (2012)

sciences and humanities—nature vs. culture—and has the advantage of not referring to individual emotion theories but rather discussing emotions against the background of the social and natural sciences. Thus, Plamper introduces a temporal dimension that also allows us to consider historical strands of development and social contexts as factors that influence our understanding of emotions.

The "hot" side can be understood as a representation of social constructivism, which assumes that an individual gains knowledge about his environment through social discourse. The basic thesis of a constructivist approach implies that knowledge comes about through a process of construction and that reality is thus a product of this process. An ontological truth or a "true" reality is not found but is rather created; furthermore, reality is understood as an independently existing world to which the individual has no direct access and as the construction of the world of experience. The constructivist approach, in contrast to a rationalist or positivist approach, assumes that for example, the analysis of a company's competitiveness would differ if it were conducted in a different time period, in a different constellation or with a different mood. Thus, no natural regularities will come to light through such an analysis, but situation-related subjective observations will be analyzed, commented upon, and evaluated. It is assumed that in the beginning, there is a constructed problem that can lead to new knowledge through the attempted implementation and subsequent elimination of solutions. In summary, it can be stated that a reality, in the sense of a universally valid truth, cannot exist, and thus an individual's reality is the result of a communicative construction. A reality that is passively revealed to the individual cannot exist; an individual's reality can only be actively opened up by that individual.

This view stands in sharp contrast to the "cold" side, which is characterized by a rationalist or positivist attitude and assumes that there is an objective reality that needs to be discovered. This reality is unchangeable, universal, timeless, and independent of cultural influences. This is the predominant view regarding emotion in neuroscience, i.e., here, one tries to define feelings on the basis of the so-called neuronal correlates, which occur equally in all individuals. This hope for finally explaining emotion rationally based on biochemical processes was revived in the mid-1990s with the publication of Damasio's hypothesis of somatic markers. This hope continued for approximately 25 years but was eventually shaken by numerous studies that could not find replicable evidence for many of the new theories, including mirror neurons and dual processing, among others. The attempt to find a biological fingerprint of emotions in the brain also failed (Plamper 2012).

Much more interesting, however, are the approaches of philosophers, historians, and sociologists to place emotions as a "hot" pole at the center of their quest for knowledge.

Slaby and Choudhury (2012), for example, outline the recent efforts to philosophically understand emotions as a central dimension of human existence, to describe their modes of execution and to relate them to central questions of philosophy, e.g., ethics or the theory of the person (emotions and practical self-understanding). In particular, motivational and cognitive emotion research is of great interest in philosophy because feeling and acting have grown closer together

in philosophical theory over time. In addition, the role of emotions in the comprehensive "background" of action explanations as a whole is also coming into focus. This perspective shows that specific reasons for taking action and motivational factors relate to a larger context comprising a web of attitudes, character traits, and habitualities. Human emotions can be used as valid explanatory factors for declarations of action only if they are understood as partial moments of such a comprehensive personal self-image or a practical perspective on the world. While this may sound slightly convoluted, it has great practical significance in the understanding of emotion and change because if the meaning of emotions is understood, actions can be better categorized and thus mastered.

Emotion research from the perspective of historical science deals with the simple question of whether feelings have a history and whether feelings determine history. Historians can thus explore the emotional frameworks of the past and determine whether feelings—sensations and their expression—are culturally shaped and socially learned. What someone is allowed to feel or show in a certain situation or towards another person or thing and what they are not allowed to feel or show are socially standardized and thus historically variable. When applied to organizations, culture, and change, this results in display rules, i.e., which emotions can be shown in a given working context. Here, the rules that are applied and are subject to standardization and variability become clearly visible. Historians have also examined various European and non-European societies in terms of their emotional practices, styles, and lexicons. Such research usually spans from the eighteenth to the twentieth century. Societal institutions such as the family, law, religion, the military, and the state, which are attributed a formative influence on the order of emotions, have been examined. Unfortunately, there are no investigations or studies that aim to represent feelings in economically oriented organizations across time, so at this point, ideas and results from the study of the history of feelings must be transferred to organizational studies. The benefit of doing so should not be underestimated, since social trends and changes are also being expressed in companies. Furthermore, studies of the history of feelings assume that feelings have a certain amount of power to motivate actions and control developments. Thus, feelings are and have been the preferred object of manipulation and instrumentalization in political and economic contexts as well as in private and public spheres. For example, emotions have become an explicit topic today in dealing with, for example, the influence of emotions on nineteenth- and twentieth-century politics or fear in the Cold War. Unless the fear of the atomic bomb, to take one example, is considered, everyday experiences during the Cold War era would be inadequately captured—and this also applies to the decisions of the heads of government at the time who pursued politics with knowledge of this fear.

Ute Frevert from the MPI in Berlin has formulated some interesting questions regarding the economic actors of the time: What feelings were appealed to? When, by whom, and with what goal were they appealed to? To what extent did feelings contribute to the formation and dissolution of social groups and movements? Such questions have guided a field of research that historicizes a central element of human development and analyzes its dependence on time and space (Frevet 2016).

More concretely, from a historical perspective, Verheyen (2010) considers feelings to be an element of the *conditio humana*, emphasizing that the history of feelings should not remain in a niche field of study but should rather be used to provide new insights into cultural, social, political, and even economic historical issues while at the same time helping to emphatically overturn the traditional premises of the purpose-rationality explanation of human action. With reference to the presentation of emotion in the previous section, a brief excursion into various research strategies that can be used to track down emotions is useful, starting from emotional words, rules, and practices. First, a remarkable consensus among the disciplines seems to be emerging, as an increasing number of researchers are pointing to the cultural variability of feelings:

> For not only everyday understanding and scientific conceptions, normative evaluations and public attributions of emotions differ between cultures, but also the practice of emotional expression and the experience of feeling itself (Verheyen 2010).

In other words, emotions have not developed evolutionarily, but feelings are—at least to a considerable extent—culturally learned attitudes.

But how can feelings be examined? Verheyen suggests three areas of investigation. A starting point for investigating feelings is the emotional vocabulary that has to be investigated through the history of science. Knowledge about feelings produced in public and academic discourses and attached to terms such as "fear" or "hate" can always be read as the result of attempts at regulation and control as well as of political power struggles. Applied to organizations, this relates to the extent to which emotional words are used in daily communication via e-mail, chat, telephone calls, in-person meetings, and in published documents such as annual reports or advertising material as well as to what rules apply to such words. In Sect. 1.1 the emotional economy was characterized by the three emotions of "enthusiasm," "impatience," and convenience with online distribution. However, there has been no additional research on this subject, which is a derivation of semantics, nor has there been an analysis of how active sales or marketing can control or influence these emotions. Likewise, no well-founded statement can be made about the effects on internal teams that, for example, have to design a web portal meeting certain requirements. Without an understanding of what these emotions mean for the team, it would be difficult to build an optimized online channel. This leads us to the next aspect, namely, the pragmatics of emotional words and their use in social practice. After all, words such as "anger" and "grief" are by no means only retrospectively developed, outwardly remaining labels of a stable phenomenon that already exists in advance. Instead, they influence feelings themselves. This means that there are interactions between "inner" emotional states and verbal expressions of those states. If an individual says, "I am very angry with you," and this anger disappears while they are speaking, then there is a dynamic rather than hierarchical relationship between feeling and communicating. The conception of feelings as pragmatic emotions is therefore of great importance.

Another starting point in the history of feelings is the historically changeable rules of feeling, which can prescribe the spectrum of feelings, their intensity and duration, and the forms of emotional expression (for example, loud sobbing or silent crying) considered legitimate in a particular social group. Here, the emotional norms in a social group are distinguished from the emotional experience of individuals and teams, which is also related to display rules. What is interesting here, however, is the fact that knowledge of the feeling rules that exist in certain social groups and institutions is not necessarily reflected and conveyed explicitly in normative writing but is primarily formed insidiously through social practice. This is precisely the core of how corporate culture is formed, and every newcomer must first learn these emotional display rules. After all, people try not only to behave "appropriately" in a given situation but also to feel appropriately. Verheyen (2010) makes this clear:

> (...)most people at the funeral of US President John F. Kennedy, who was assassinated in 1963, would not have been satisfied with superficially feigning the sadness they expected to see to others. Rather, they tried to be 'really' sad, that is, to create authenticity in the emotional performance.

This situation is familiar to anyone who has spent time in the workplace, where every employee observes, arranges, dampens, and reinforces his own feelings in order to reconcile them with social expectations, e.g., being a friendly salesperson or a helpful SW developer. Such emotional work can be done both verbally and nonverbally. Emotional communities can also form on the net, where a specific system of feelings can be established. For example, Facebook users can merge into a global emotional community, but it remains unclear how the connectedness of such groups can be empirically tested. Media are also interwoven with the history of emotions in a special way. Audiovisual sources do not merely depict feelings. Rather, they influence and change the interpretations and practices related to feeling. When a wedding party smiles at the camera in a photo, this does not mean that all participants were in a good mood at the time of the photo. Instead, this indicates that the people present were expected to be cheerful, that they thought they could express this cheerfulness best with a smile, and that they were willing to conjure up a smile for the photographer for the sake of the photo album. The photo of the smiling wedding party thus refers to the social standardization, performance, and production of feelings in the age of mass media. This example can easily be transferred to the numerous cell phone photos or videos commonly taken in organizations on all kinds of occasions such as meetings and town halls. Situation-specific dynamics can then be examined, and this can provide information about the emotionality of a group or organization.

In summary, in view of the wide panorama of biological, psychological, and constructivist approaches, it can be said that the science of history makes an important contribution to the development of concepts that yield a better understanding of emotion in order to establish overarching research on feeling that focuses on the sociocultural dimension of feeling. Methodological criticism comes from the fact that the approaches presented do not include the body at all or include it only as a

stable factor. Thus, models such as the psychological construction of emotion, the analysis of core effects, and embodiment theory are not taken into account here but would have to be integrated and considered further to increase the informative value of this stream of research. Navigating emotions, with all their uncertainty, has always been done with the help of words and bodies, ranging from embracing of a friend to elaborate physical and mental activities, such as yoga, rap or laying on the couch of a psychoanalyst.

It should also be noted that contemporary monographs that focus on the history of feelings from the outset are still relatively rare, especially for overarching narratives on contemporary patterns of emotional change. These include, for example, the processing of sensitivity and expressivity in Western industrialized countries since the 1970s and the description and analysis of the "emotional style" of "coolness" among the American middle classes from the 1920s onward (Verheyen 2010) and the effect or continuation of such background on the current megatrends in the digital economy, i.e., demography and new work.

Sociology also makes an important contribution to our better understanding of emotion in the context of digitalization and the simultaneous need for individual and organizational adaptation. Sociologists regard emotions as a connection between individuals, cultures, and social structures (Lively and Weed 2018). Since the 1970s, sociological considerations of emotions have produced structuralist, behaviorist, social constructivist, and phenomenological theories of emotion and have provided valuable insights for the study of feelings in organizational contexts (Neckel and Pritz 2016). Cultural and structural perspectives in particular offer important points of departure here. Some research strategies have attempted to grasp reality in everyday life to characterize, for example, the cultural and network-related changes in the emotionalization of society and thus also the economy. Feelings are no longer merely the object of subjective and social control but are becoming the subject of numerous social techniques aimed at optimizing emotional experience, action, and representation. The "emotional economy," as described in Chap. 1 by Lobo (2019), is an exogenous factor that increasingly influences social interactions in organizations. Feelings are no longer merely the object of subjective and social control but are becoming the subject of numerous modern social and networking techniques, all of which are aimed at optimizing emotional experiences, actions, and representations. This is true for providers in the platform industry, who want to inspire their customers to buy with enthusiasm and convenience, as well as for the designers and developers of such tools, who have to put themselves in the shoes of the customers, with their increased emotionalization. Neckel and Pritz (2016) understand these processes of emotionalization in organizations with "outside" and "inside" causes, which are connected with each other through the principle of customer orientation. Emotionalization from the "outside" is nothing fundamentally new: Since the advent of advertising, attempts have been made to charge products and brands with emotions and to connect them with certain values and lifestyles. Today, however, an increase in emotional corporate communication is clearly visible. Emotionalization from the "inside" takes place as an intensification of the customer–employee relationship, which, among modern consumers and service

professions, is supposed to fulfill the paradoxical requirement of guaranteeing the personalization of standardized products and services. Such emotionalizing activities are no longer limited to the service sector. Rather, being able to work flexibly with emotion has become a professional requirement increasingly determining the outcome of evaluations of workers in commercial sectors. Assessment and coaching have thus become the most important economic practices of emotionalization.

The cultural perspective can also explain the embedding of emotions in rules of feeling, i.e., defining cultural norms about what should be felt and how these feelings should be expressed. In the end, this has led, for example, to influencers being loved or hated without there also being criticism of the products or services they advertise. Additionally, as already mentioned above, emotional work—the everlasting smile of the salesperson—has become an evaluative standard. The representatives of a company should be as close, friendly, and sympathetic to customers as possible. The cultural perspective thus focuses on rules and expectations, on which emotions and practices of expression emerge and how all of these change over time. In contrast to the cultural perspective, the structural perspective focuses on the emotions of individuals, which are perceived as the result of structural conditions. Power and status are the dominant factors that determine which emotions can and cannot be shown.

2.5 Summary Emotion Theories

The outlining and classification of the different emotion theories above aimed to provide an overview of the chronological and content-related development of research in this field in order to characterize its breadth. Table 2.2 summarizes the most important points. Certainly, this presentation cannot be entirely comprehensive, but it provides a solid basis for the purpose of negotiating emotions in the context of digitalization. Specifically, the aim has been to point out new ways of thinking about this subject and to present concepts, such as the idea of emotional intelligence combined with the "reading" of feelings from facial expressions—which is considered verifiable but not meaningful in research—that allow us to pragmatically deal with feelings in the context of work. It should therefore be clear that it is worthwhile to widen the field and not to cling to outdated ideas such as the theory of evolution and subsequent concepts such as basic emotions, as these considerations would restrict any consideration of the topic from the outset. If one thinks of emotion "only" as an instrument to ensure survival, it is difficult for one to deal with feelings such as sadness or melancholy because nothing is set in motion by such feelings (as they are ascribed to "fear," i.e., there is an automatism that immediately causes an individual to fight or flee); instead, pausing to reflect should be the main focus.

Many topics have become well developed, and Scarantino (2018) is convinced that there is now a consensus on numerous approaches in the research community, including a consensus that the seat of emotions can be located in the brain, and thus, all of these theories can be rejected as dualistic like those of Descartes.

Table 2.2 Overview of emotion theories

Theory	Description	Relevance	Criticisms
Feeling	Emotion describes, in an unmistakable way, a conscious perception, sensory impression or subjective quality of experience	– Important for discussing emotion in change – Integrates neurobiological elements – Develops multiple emotion systems	– May lead to simplification – Is not widely used
Motivational	Emotion describes a specifically motivating state or a certain behavior pattern	– Has become very popular through the concept of emotional intelligence and the 6 basic emotions – Makes one-sided reference to the theory of evolution – Widely used in change theories	– Cannot be scientifically proven – Has not resolved disagreements about the number of basic emotions – Does not consider all feelings (including grief)! – Provides purely subjective attributions – Comparable with horoscopes
Appraisal (Cognitive)	Emotion is associated with a judgment or evaluation, which can be a cognition, interpretation, thought, judgment or construct or any other type of mental representation of the triggering circumstance or stimulus	– Known for its concept of stress management (coping)	– Is complex – Is difficult to use in the context of change
All theories have the following in common: quality, intensity, duration, action orientation, object orientation, physiological aspects, cognition, and no universal validity However, they all lack a contextualization of emotion (history, sociology)			

However, caution is advised, especially when neuroscientific (pseudo) arguments are used to explain emotions.

Far too often, assertions are made to justify all conceivable new methods or insights, which of course, in turn, flow into new consultation approaches. There are only a few experts in this field, and this generally thwarts any meaningful discussion of the topic of emotion. Today, neuroscientific findings are considered innovative, but they are often based on findings, experiences, and concepts from other fields of research, such as psychology. For example, the amygdala is called the fear center of the human brain, although numerous other processes in the brain are involved in the perception of fear. Results pointing to this were published during the neuro-hype era between approximately 2000 and 2010 and were frequently covered by news channels, which treated them as sensational reports. Few have questioned, however,

whether this is actually valid, since modern neuroscientific research makes extensive reference to innovative imaging techniques and the bright spots that can be seen on the resulting images—hence the contradiction. It was not until the 2010s and the publication of increasingly critical contributions, e.g., Hasler (2012) and Slaby and Choudhury (2012), that a reconsideration of the subject was initiated. Imaging techniques in particular were heavily criticized, as it became abundantly clear that in a laboratory environment with a small number of test subjects, groundbreaking findings on topics such as fear or memory produce only very limited effects and cannot always be replicated. This is already problematic because of the enormous costs of such an experiment make it uncomfortable to question the impressive results. Even the mathematical-static problems associated with such experiments cannot be solved in perpetuity, so there is always a certain amount of subjectivity to the results. Strange advice is also given, e.g., by Gibbons (2019), who quotes an author suggesting that

> 'By understanding the brain science behind commitment, coaches and managers can then develop interventions that target the left frontal cortex'. Structures perform multiple functions so when you target the left frontal cortex, it is like telling a fisherman to target the Mediterranean to catch fish.

How a coach might seek to specifically address this neuroanatomical structure remains a mystery. Therefore, it seems that it is not particularly useful to refer to such findings when dealing with emotions, leadership, and management. What is the benefit of knowing that the amygdala has something to do with emotion management when a team wants to solve a major conflict? There is not much benefit; rather, such knowledge distracts from solving the problem, leading us back to the original issue.

Emotions are also object-oriented and action-oriented, requiring a large cognitive base that includes perception and memory. Emotions can also be appropriate or inappropriate in relation to their object as well as in their own right, i.e., a feeling can be unwise or immoral. Furthermore, emotions can play a functional role in different categories, e.g., in decision-making. Finally, it should be noted that most emotions are also influenced by sociocultural factors, such as cultural, social, political, economic, and historical forces, but this is not sufficiently reflected in the theories.

On the other hand, Gibbons is also convinced that many problems are far from being solved and that there is great disagreement about the nature and properties of emotions, the terminology appropriate for describing them and the proper experimental techniques for researching them. Thus, there is disagreement about what emotion actually is, following feeling, motivational or appraisal theories, but none of these approaches fulfills the criterion of providing a universal explanation. Therefore, one must always be aware of which aspect one actually wants to explain or research. A promising way forward is therefore to look at modules, building blocks, or components of these theories, as characterized above by the approach of psychological constructivism. Another strategy involves a change in perspective and the involvement of other research fields such as sociology and history in order to be able

to take historical context into account in the study of emotions. This could lead to the emergence of a view of multiple emotion systems that accepts—similar to the recognition of different memory systems, e.g., short- and long-term, semantic, procedural memory—that there are also multiple "anger systems" and not just one universal feeling of anger.

Next, the development of emotions in humans is traced to clarify that the expression of emotions is not innately manifested, but genetics, socialization within the family, early childhood experiences, education, and experiential learning play a large role in how humans handle their emotions as adults.

2.6 Bio-constructivism as the Basis for the Development of Emotion

2.6.1 The Development of Emotion

Previous sections described in detail the different theoretical currents of attempts to explain the nature of emotion. However, the question of how emotion actually initiates and develops has remained largely unanswered. Lewis (2018) proposes a new perspective. Fear has often been studied in a specific context, e.g., being approached by a stranger or standing on the edge of a steep precipice, and this context represents the feeling of fear. However, he claims, only attention to change in the physical or social world is actually investigated in such studies. Changes generate attention and thus direct the orientation towards change along with the cessation of ongoing activities and the perception of new physical reactions, such as heart palpitations or sweating. The determination of the value of change through a cognitive, evaluative process is a prerequisite for triggering specific multi-emotion reactions. The theoretical framework proposed by Lewis (2018) to study the developmental process of emotion in humans includes an analysis of activation patterns and the development of consciousness and other cognitions in humans. Research that combines biological and constructivist approaches thus takes into account evolutionary genetic conditions, including the structures or activation patterns that allow a child to enter into and interact with the physical and social world, as well as the child's innate temperament. In addition, such research considers unique social and cognitive experiences and their interactions over time. In other words, it examines the development or presence of consciousness, which connects innate biological abilities and learned cognitive processes. The emergence of consciousness is a central building block in the framework for the development of emotion in a child, as consciousness transforms the activation patterns composed of facial expressions, voice pitch, body movements, and other physiological processes into an idea about the self and thus constitutes emotion (Widen 2018).

Lewis (2018, p. 273) illustrates this process with the following example:

> Soon after birth, Maron is given a sour tasting food. His nostrils flare, his upper lip raises, and his tongue protrudes from his mouth. 'He really doesn't like it', his father says, 'What a

> disgusted face.' In fact, the facial coding systems of Izard or Ekman would measure his facial expression as one of disgust. Five years later, after Maron sees his younger brother throw up, he says, 'How disgusting,' while at the same time lifting his upper lip and flaring his nostrils. His facial and motor behaviors again would be scored as disgust. He is disgusted by the look of the vomit. At age 13, Maron watches a TV news report where a Vietnamese army officer raises a pistol to a prisoner's head and shoots him dead. 'That's disgusting,' he says as he flares his nostrils and raises his upper lip.

Here, it is clearly shown that although the activation pattern for disgust remains relatively stable over time, the face can convey different meanings. The facial expression, however, can also have changed for various reasons, e.g., in different cultures, it is frowned upon to show such feelings, and they could therefore be suppressed, or Maron did not want to show his disgust to his brother, so he turned his face away. As a teenager, he might have exaggerated the expression of disgust to impress others with it. This behavior confirms the display or feeling rules in organizations described in Sect. 2.1, i.e., the norms that determine which emotions may be shown in which organizational context.

The facial expression for emotional disgust as an activation pattern is thus innate and is triggered at the beginning of life by specific physical events. On the one hand, these activations are stable, comparable to the innate ability to walk upright or to see the color red, but on the other hand, these patterns are also transformed by the social environment in the course of childhood. However, these changes are not learned; Lewis perceives them as the result of the highly flexible process of the child adapting to his very specific environment. The developmental patterns of emotional disgust are based on different experiences. In the above example, Maron experiences different events related to disgust, both tasting and smelling disgusting tastes and odors, up to the age of 5 years. By observing other people who are disgusted by something, he can also draw conclusions about this feeling and, in the case of his younger brother, present the same facial expression that he previously showed as a baby. Images of disgusting things can also trigger this feeling. The number of events that fall into the category of disgust has therefore increased enormously. In addition, Maron has also collected information about the reasons for this feeling—what or who triggers the feeling of disgust. If his brother vomits, Maron knows that the latter either ate something bad and became sick because of it or maybe just looked at a picture about something. Maron also knows at this age what will happen after this event when his brother is healthy again and how he himself felt when he was himself. Thus, he has collected information and can now link the activation pattern for disgust with many other situations, i.e., he has developed the ability to experience feelings. He can now assign different meanings to this feeling, including causes and effects. He can even control this emotion by increasing or masking it, depending on the goal and intention of his behavior, i.e., to aggravate or alleviate his brother's feelings. The prerequisite for this is the existence of a consciousness, the idea of one's own identity and uniqueness. Without consciousness, Maron would not be able to show moral disgust at the age of 13. His facial expression as a teenager is still very similar to that as a baby, and yet a great deal has changed through the development of consciousness and cognitive capacities. The original activation pattern is activated

by an abstract trigger that requires knowledge of rules, goals, and standards and an idea of right and wrong. While disgust was linked to physical triggers as a baby or toddler, disgust is now functionally independent and can function as a moral authority in a culture.

In summary, all activation patterns are stable, but new triggers are constantly being added to improve a person's ability to adapt to their environment. Prerequisites include the development of consciousness and the ability to reflect as well as experiences and events in the physical world. Fear of insecurity thus becomes fear of the idea of insecurity. This is exactly what occurs in day-to-day business during a digital transformation and the associated phenomenon of agile change. The announcement of change should not be compared to the experience of standing at an abyss but rather to knowing what an abyss looks like and what the dangers are that come with approaching it. Starting a change project with the image of a "burning platform" or creating "uneasiness" among employees stimulates their imaginations to think about the idea of danger. This is not a good way to start such a project—it is comparable to putting on a heavy backpack and then attempting to run a marathon in record time (Widen 2018).

2.6.2 Language as a Central Building Block for Emotional Experience

2.6.2.1 Language as a Connection Between Emotion and Cognition

Children learn language quickly and spontaneously, as they are genetically predisposed to the acquisition of language. Infants acquire language-relevant skills after a few days and can then distinguish phonemes and phoneme categories. Within approximately 9 months after birth, infants can already consciously control their mouth movements and form meaningful double syllables such as "mummy". Then, the first simple words can be produced, and a small vocabulary of approximately 60–70 words is generally built. By approximately 1.5 years old, this expands rapidly and comprises approximately 300 words. Grammatical knowledge is acquired at the same time, i.e., word combinations, such as "my ball," are formed. Starting from approximately 4 years old, the grammatical bases are mastered, and complex sentence constructions such as relative sentences are formed. After the age of 6, abstraction is possible, i.e., longer stories can be told. In addition, grammatical structures, reading and writing are now also consciously learned. Language is a fundamental prerequisite for dealing appropriately with ourselves, other individuals and groups and thus also with our emotions.

Language, including grammar and vocabulary, influences our thinking. But how does thinking succeed without critical reflection and a sufficient vocabulary? It is difficult to communicate with others if one is not able to recognize and classify ideas, objects, and facts correctly. Many studies have investigated how emotional experiences are translated into language in order to better understand the mechanisms of action, e.g., in cross-cultural communication, therapeutic measures or even art. In other words, the aim is not only to find an appropriate translation of an

Fig. 2.5 A mushroom may translate into fear or pleasure

emotion but also to understand how language or words influence the nature of emotion itself. The extent to which language modulates the perception and experience of emotion through cognitive appraisals or evaluations thus becomes a central question. Thus, we can speak of a correlation between language and emotion or, as Lindquist et al. (2018, p. 579) [put it, putting words into feelings and feelings into words].

They refer to different approaches, including psychology, linguistics, natural sciences, and anthropology, to illustrate the diversity of concepts.

The extent to which language influences the perception of emotion becomes clear when the ability to speak is limited because the ability to perceive emotion in other people is also greatly reduced. Even if speech is permanently restricted by neurodegenerative diseases, similar effects are observed, i.e., the ability to perceive emotion is underdeveloped. Language seems to be a core element of emotional competence. Thus, different languages are thought of in terms of different concepts of emotion, which are responsible for the fact that emotional situations and contexts are experienced and perceived differently (Lindquist et al. 2018).

Figure 2.5 depicts a fly agaric, a colorful special mushroom. Without a sound language ability, it would not be possible to describe and to evaluate it regarding its dangerous potential when eating it. So, fear would be an appropriate emotion when confronted with the kind of mushroom but processing the visual stimulus and translating it into an emotion depends on several factors. The knowledge about a mushroom, the associated risk or pleasure of eating it.

These interrelationships are important when large, internationally staffed teams, e.g., in a software development project, come together and have to deal with complex and challenging tasks that are usually not conflict-free. The insights presented here support a common understanding of organizational members and are suitable for positively influencing cooperation. In general, it can be said that the larger the vocabulary is, the more differentiated the environment and changes expressed are perceived to be.

Language also influences estimates and memory. For example, in one study, participants were shown a film about an accident and were asked to estimate the speed of the car involved in the accident. They made different statements depending on whether the film described the accident as a collision at low speed or one at high speed. When asked 1 week later whether they had seen broken glass at the scene of the accident, 12% answered yes if it was described as a collision and 32% if it was described as a high-speed collision (Rasch 2014).

2.6.2.2 Language and Socialization

Parallel to language acquisition, the perception of emotions also develops through corresponding phases of socialization (Wertfein (2020). First, the genetic predispositions that determine one's different temperamental dimensions are noted. In particular, one's predispositions play an increasing role, alongside various environmental factors, in negative emotions. Emotional understanding begins at approximately 8–12 months through social referencing, i.e., emotional signals from parents are used as a guide for interpreting and reacting to potentially unpleasant and dangerous events. At approximately 3 years of age, the ability to name a narrow range of emotions develops analogously to language acquisition, and joy is most easily recognized. At preschool age, the differentiation of negative emotions is possible, while more complex emotions can be recognized only in middle elementary school and beyond. Between the ages of 4 and 8 years old, the emotions of others can be identified on the basis of their expressive body movements, and from the age of 5 years on, accurate identification is possible, and this is important for reacting appropriately to one's own emotions and those of others. With increasing age, a growing understanding of emotion triggers can be noted, thus emotions can be better described. An important method for describing emotions is that of "storytelling," which also promotes the understanding that memories can trigger emotions. This is an important function in understanding the behavior and motives of oneself and others and in providing behavioral regulation. Parallel to this, an understanding of real and false emotions, i.e., awareness that the emotions that are expressed do not necessarily correspond to the true feelings of the person expressing them, also develops. This understanding has been observed in 3 year olds. This understanding improves between the ages of 4 and 6 years old due to the improved knowledge of rules of expression and to growing cognitive capabilities. However, the role of social factors, such as gender differences and parental influence, and cultural factors should not be underestimated.

Around this same age range, the difficulty arises of developing an understanding of the presence of simultaneous and ambivalent emotions. With increasing age,

however, the understanding of the complexity of emotions grows. From the age of 5–7 years old, children realize that it is possible to have two compatible emotions and that two emotions, each related to different triggers, can be experienced simultaneously. During middle to late childhood, children also discover that they can experience multiple ambivalent emotions simultaneously that are related to different triggers. This insight is important for their own self-image and their social interactions with others.

The emotionality of children is influenced by the parent–child relationship. Having a secure bond, especially with their mother, promotes emotional understanding, and children with such bonds show less social anxiety and more positive emotions. Such children's sense of security is therefore well developed. A child learns to perceive feelings towards herself and others through the parent–child relationship, which typically demonstrates how relationships are managed. This also includes communication with parents about feelings, which helps children to recognize when and how emotions are to be regulated. The influence of parental socialization on emotional reactions is done through the expression of emotions; this influences the children's view of themselves and others in their social environment and teaches them which forms of emotional expression are appropriate and effective. A further influence on the child is the parents' reaction to the child's expression of emotions, thus shaping the child's emotional expressivity, social competence, and adaptation. Learning about the meaning of emotions and how they should be expressed or what kind of emotions can be managed and expressed is also facilitated by the discussion between parents and children about emotions and emotional regulation. Finally, there are cultural influences, as described above in the section on historical sciences: although people have similar emotions in all cultures, there are sometimes great differences in the way emotions are expressed, which can be explained by educational styles and specific social constructions such as display rules.

In summary, differences in temperamental dimensions are mainly related to genetic predispositions and, to a lesser extent, environmental factors. The quality of the parent–child relationship also influences children's emotionality and the constant open expression of emotions, which has an influence on the relationship between the social environment and both self-perception and emotional expression. The emotional signals of parents aid in orienting and interpreting emotions, and a good understanding of emotions helps one react appropriately to one's own emotions and those of others.

If we now take the available emotional concepts of individuals as a whole, it is easy to see that some people can discuss their emotions in great detail, while others can find only a few words to describe their emotional worlds. This state limits the latter's room for maneuvering because individual emotional functions cannot be performed or can be performed only inadequately. Words are therefore of great importance in this context because they are an efficient shortcut. The word pizza, for example, is a shortcut used to avoid having to describe dough that is baked in the oven and is then topped with cheese and other items. Knowing what a pizza is enables concise communication. It is the same with emotions, only with one

important difference. People can understand "anger" to mean many different things in very diverse forms, so clear communication about anger can be difficult. Words can also evoke associations, i.e., if one says the word pizza in the presence of others, everyone immediately conjures up his or her idea of pizza and is perhaps already salivating at the thought. It is therefore possible to immediately place ideas into other people's heads. Furthermore, the mental states of others can be deduced from what is spoken. In other words, it is essential to have a linguistic equivalent for perceived emotions. The more precise the differentiation is, the easier communication becomes. In some cases, e.g., when conflicts are involved, a high level of competence in this environment can help to avoid the escalation of conflict. Similarly, in international, multilingual environments, it is eminently important to have excellent emotional expression abilities. Some terms are unknown in Western culture or have a completely different meaning, so misunderstandings are almost inevitable. The communication of emotions in groups should be calibrated among the team to avoid misunderstandings.

2.6.3 Social Function of Emotions

The social and functional character of emotions makes it possible to solve problems, for example, to fight back against an attacker with the help of fear or to take flight. In the context of change management, however, the focus is on "social survival." Three important functions of emotions are the focus here because emotion concepts encompass a variety of important characteristics. In contrast to classical emotion theory, which considers the number of different emotions to be the most important criterion, functional theories hold that constructed emotions have several important functions. On the one hand, an emotion concept provides meaning for the individual, i.e., the individual understands what is meant and thus initiates or executes an action. Depending on the situation in which one finds oneself, the physical characteristics are adapted, e.g., one's muscles are tensed or relaxed, breathing is accelerated or slowed down. Two further functions relate to interactions with other people, i.e., using emotions, an individual's status can be communicated. If, for example, a man is observed to be breathing heavily and sweating, it may be concluded that he is a jogger. If he is wearing a dark suit, he could be a groom. The social context is crucial. Likewise, social influence can be exerted by prompting someone else to perceive their own emotions such as fear or excitement (Fontaine et al. 2007; Scherer 2009; Barrett 2017).

However, this works only if one has the ability to create social bonds and overcome social problems such as isolation or a loss of influence. The central goal is to ensure social "well-being." This is achieved through the perception and expression of emotions, which, on the one hand, help establish and maintain positive social relationships and on the other hand, make it possible to maintain a social position in relation to others while protecting one's own identity and self-esteem, sometimes even exercising power at the expense of others. Since both sides are

diametrically opposed, maintaining a balanced relationship is of great importance (Fischer and Manstead 2018).

In other words, emotions serve to create closeness as seen by, for example, gratitude, happiness, love, shame, guilt, and regret, as well as to maintain distance by, for example, showing anger, hate, contempt or pride. In the social context of a development project in a company, however, numerous teams, departments, or divisions are also in competition with each other, so emotions between the groups inevitably play an important role in such projects.

Group and Intergroup Emotions

In every company, every employee is a member of a group, a team, a department, and the entire company. As mentioned above, openness, appreciation, proximity, and distance are central components of daily work and of the introduction of agile management methods. The extent to which someone behaves openly, closely, or distantly in the social context of work is strongly determined by individual emotions. Emotions are not purposeless but have a strong adaptive and functional character at the biological and individual levels.

Accordingly, numerous research projects have concentrated on the investigation of individually perceived emotions and neglected social aspects. However, how emotions arise and appear in social contexts, and the meaning these emotions are assigned by team members, for example, is of central importance in any introduction of innovative team-oriented working methods. This can be seen, for example, when team members react in the same emotional direction to events, announcements, or other things that affect the group (Smith and Mackie 2018). This is especially true if they are following the principle of self-organization.

How Emotions and Group Identity Are Connected

This approach is based on social identity theory (Tajfel 1978; Ashforth and Mael 1989) and self-categorization theory (Turner et al. 1987). The basic idea of these theoretical approaches is that the traits of important members of a group become part of the identity of other individuals in the same group. This includes the former's unique personal characteristics, such as being open, choleric or reliable. Group sizes can vary from very small to very large. For example, political parties or entire companies may experience this influence.

In the most diverse group situations, the members no longer see themselves as unique individuals but rather consider themselves interchangeable members of the group. This process is called depersonalization and is a prerequisite for "intergroup situations" in which social comparisons, competition, or conflicts take place. This leads to different consequences. At the cognitive level, norms are conformed to; i.e., the attitude towards certain topics and behaviors are adapted to the group norm. On the behavioral and motivational level, there is also a unidirectional adjustment: in other words, everything that moves the group forward is considered desirable and useful. Emotionally, the members of one's own group (ingroup) are considered similar and treated more benevolently than members of foreign groups (outgroup). The group thus has a high emotional significance for each member.

There is an important difference between group-based emotions and group emotions. The latter describes an emotional state of a group that is based on a common experience. A classic example of this is a soccer game where all group members are happy about a goal or the victory of their team regardless of their relationships with each other. Common to both categories, however, is the fact that all emotions are perceived individually, i.e., there is no "group-mind" or group feeling (Tajfel 1978).

How Emotions Influence Identity and Behavior Within a Company

Emotions are shared by individuals and expressed through speech, facial expressions, and gestures. Group-based emotions presuppose a process of "depersonalization"; i.e., individuals in a group react in a unified way to the external environment. However, such emotions are classified as relevant to the group and not as individually relevant. The functional aspect of this process involves the regulation of group-based or collective behavior rather than personal or individual behavior. Relevance and functionality are thus the criteria that distinguish "group-based" and "group" emotions. It is possible to determine by means of a question whether an emotion is group-based or individual: Would the emotional reaction to the same event be similar if this event had happened to another group member? If so, this is a group-based emotion.

Intergroup emotions motivate people to carry out certain activities that relate to specific situations in the group. For example, a need or desire may exist,

- To confront, attack or avoid another group,
- Support members of one's own group, or
- To seek the proximity of others without personally profiting from it.

This is the result of the prevailing intergroup emotions: Here, on the group level, an assessment of emotions is made, and a tendency for certain activities is linked to it. This is expressed, for example, in statements such as "They are threatening us!" or "We are angry with them." These are important reasons for certain forms of behavior in groups. This is the only way to change or improve a certain situation to which a group is exposed. Emotions such as anger directed at a particular group can then be linked to prejudiced attitudes and discriminatory behavior (Fischer and Manstead 2018).

2.6.4 Summary of Bio-constructivism

Biological characteristics and social factors are responsible for the different emotions a person can feel and express. The temperament of a person is innate, and differences in temperamental dimensions are mainly related to genetic predisposition and, to a lesser extent, to environmental factors. The quality of the parent–child relationship also influences children's emotionality and the constant open expression of emotions, which influences self-perception or emotional expression

and the social environment. The emotional signals of the parents are used to aid orientation and interpretation, and a good understanding of emotions helps one react appropriately to one's own emotions and those of others.

At birth, every human being is equipped with neuronal activation structures, i.e., the conditions needed to optimally adapt to the environment into which the individual was born are present. However, there is no biological "fingerprint" in the human brain that would satisfy the universalistic demands of many researchers and publicists. Therefore, there are no basic emotions, only potential that is seized or not seized. Only the interaction between an individual's biology and their environment in the form of a learning or development process in their early years makes it possible for the individual to perceive body signals and express them as a specific emotion.

Language is indispensable in this context, as it is the only way to translate physical perceptions into emotion and thus make oneself understandable to other people in the environment. Language, including grammar and vocabulary, also influences our thinking. It is difficult to communicate with others if one is not able to recognize and classify ideas, objects, and facts correctly. Many studies in the past and present have investigated how emotional experiences are translated into language in order to better understand the mechanisms of action, e.g., in cross-cultural communication, therapeutic measures or even art. The extent to which language influences the perception of emotion becomes clear when the ability to speak is limited because the ability to perceive emotion in other people is also greatly reduced.

Language is therefore a core element for the development of emotional competence. In different languages, different concepts of emotion are considered, and this is why emotional situations and contexts are experienced and perceived differently (Lindquist et al. 2018). These contexts are important when large, internationally staffed teams, e.g., in a software development project, come together and have to deal with complex, challenging tasks that are usually not conflict-free.

The social and functional character of emotions makes it possible to solve problems. In the context of change management, the focus is on "social survival." Three important elements of emotions are at the forefront here: the individual meaning of an emotion; the correct understanding of an emotion, which requires an understanding of the relevant social context; and the exercising of social influence when one prompts someone else to perceive one's emotions such as fear or excitement. In other words, emotions are used to create closeness, as seen by, for example, gratitude, happiness, love, shame, guilt, and regret, and to maintain distance as seen by, for example, showing anger, hatred, contempt or pride.

Emotions in groups are shared and solidified during the process through which group members identify with the group. Group-based emotions are present when an individual emotional reaction of a group member is comparable or similar to the reaction of another group member in response to an identical event. Intergroup emotions motivate people to carry out certain activities that relate to specific situations in the group. For example, a need or desire may exist,

– To confront, attack or avoid another group,
– Support members of one's own group, or
– To seek the proximity of others without personally profiting from it.

The result of prevailing intergroup emotions is as follows: On the group level, an assessment of emotions is made, and a tendency to engage in certain activities is linked to it. This is expressed, for example, in statements such as "They are threatening us!" or "We are angry with them." These are important reasons that certain forms of behavior are exhibited in groups. This is the only way to change or improve a certain situation to which a group is exposed. Emotions such as anger directed at a particular group can then be linked to prejudiced attitudes and discriminatory behavior (Fischer and Manstead 2018).

This section has shown how important it is to gain a good understanding of the interaction between a genetic predisposition and socialization in order to be better able to manage the social functions of emotion.

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Emotions and Organizational Culture

3

3.1 Organizational Culture: An Overview

Megatrends will sooner or later reach every organization; some will be negatively impacted, and others will seize the opportunities and take advantage of them. Continual change requires companies to adapt quickly to new trends and circumstances. Every adaptation plan costs time, energy, and money—and nerves. Therefore, it should be understood that change always has the possibility of altering the culture of an organization, be it for the better or for the worse. Sometimes it is even imperative to change the existing culture to provide room for new behavior. While the introduction of SAFe® solves many problems, new challenges and conflicts arising across all levels and organizational boundaries should be addressed. Otherwise, skeletons will be buried in the closet, only to eventually reappear. Organizational culture and change influence and condition each other. A strong culture presents itself as combative and self-confident but often overlooks initial weak signals that something coming from outside could be stronger. Everyone surely knows of an example of a once highly praised company suddenly disappearing from the scene. The book by Peters and Waterman, "In Search of Excellence" (Peters and Waterman 1982) is a great example of this, as the authors praised numerous companies in the book for their strong culture and made it clear that success could be achieved only through cultural excellence. Unfortunately, a few years later, the results showed a different picture.

It follows that organizational changes have the potential to consciously or unconsciously change the organizational culture and thus to positively or negatively influence people's emotional reactions. However, many scientists and practitioners have also criticized the cynical way in which all these elements have been deliberately manipulated to control people and use them for their own purposes. If employee engagement is to be authentic, however, companies must develop cultures that are both strong and weak in order to grow and incorporate change without altering the fundamental ethos of the organization and must accept that emotions are a natural part of organizational culture and organizational change. Crisis events, such

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as the financial crisis in 2008 or the current coronavirus pandemic, place an emotional burden on employees and thus also on organizational culture. Based on the conclusions of emotion research, the following section will therefore outline the nature of organizational culture and then present change concepts that enable an organization to handle emotions (Smollan and Sayers 2009).

As described in Sect. 1.1, digital transformation also requires changes in organizational culture. A critical reflection should aim to determine the most important topics to the organization to find promising starting points for change. Here, too, demographic change is at the forefront because to find, hire and most importantly retain the right talent, the organizational culture must generally correspond to the values of Generation Y or Millennials.

For example, building a true "techie community" is important, and the basic requirement for doing so is providing excellent pay; however, top people also want to go where they are appreciated. Enabling intrinsic motivation through, for example, more autonomy in the performance of tasks within the SAFe® framework and a reduction in bureaucratic processes such as time-consuming reports and multiple levels of approval are useful projects here. The creation of communities of practice—i.e., bringing together employees with similar skills such as product managers, developers, data engineers, and architects, in the context of hackathons, "dev days," tech spotlights, or brown bag lunches for weekly meetings—also makes it possible to exchange details about projects and to bring ideas or topics up for discussion. This strengthens the sense of community and forms a new cultural element.

But often, the past is in the way and traditions (the way things have been done for decades) are referred to as something that definitely have to be preserved. Thus, changes are not welcome and if push comes to shove people resist and fight against change. It depends how tradition is conceptualization and consequently act upon. Voskuil (2017, p. 512), for example, views tradition as

> Delays in processes! Traditions are effective delays in processes.

Redelings (2021) refers to football coaches when explaining tradition:

> Today's RB Leipzig coach Julian Nagelsmann once said: "There is a nice saying: tradition is like a streetlamp. It lights the way for the intelligent, the stupid cling to it." Translated, this means: Anyone who thinks they are better because they have tradition has already taken the first step in the wrong direction. The only chance for football clubs like MSV Duisburg or 1. FC Kaiserslautern and many other clubs that have a lot of tradition but no money, Peter Neururer once described: "The more we talk about the past, the worse becomes the present. And the future all the more terrible." Or to put it another way: only those who face the harsh reality and are aware of their own tradition have the potential to be able to build on the good old days (the day after) tomorrow.

It does not help to refer to the past, trying to keep the success of old times. Every day it is necessary to rethink the present creating a new future.

Consequently, in supporting and promoting true collaboration models between technology teams and internal departments in the company, such as sales, production or purchasing, becomes an important prerequisite for a successful transformation.

In practice, of course, this means that a CIO will have less control than before. This can also be achieved, for example, by creating cross-functional teams that focus on specific products or services and rely on informal networks. Rough directional guidelines and more informal management are then quite sufficient.

The starting point for dealing with emotions in the context of corporate culture and the "rules" for internal cooperation within the organization and for dealing with external contacts have been defined here (Robinson und Clore 2002; Smollan und Sayers 2009). In the example above, some practical points have already been mentioned. In the literature, there are numerous typification, approaches, and descriptions regarding organizational cultures (Robinson und Clore 2002; Müller 1997; Laloux 2014) and thus, there are very diverse opinions about what culture really is.

Basically, culture makes a difference—not only in terms of well-being but also in terms of hard business figures. This applies both internally and externally: the reputation a company enjoys in the marketplace is determined not only by its products but also by the way it deals with its customers—and this is ultimately a result of organizational culture. The same applies to whether a company is considered innovative or unimaginative, whether it is found to be pragmatic or bureaucratic, whether its employees are willing to take risks or take avoiding mistakes as a top priority, and whether everyone pulls together or protects themselves against others in a "highly political environment." The history of an organization is always directed by the founder(s); i.e., the values and rules according to which they started working still apply in one form or another. Organizational culture can thus also be seen as a center of organizational memory—consciously or unconsciously—and emotions, their "feeling" and "display rules" are also included in this memory. Some interesting studies show how emotions are remembered.

The research of Robinson and Clore (2002), for example, examines the question of how an individual remembers perceived or experienced emotions from the past. Regardless of the time horizon, participants in such studies can remember emotions experienced in the past relatively easily and reliably. Robinson and Clore (2002) cited a study by McFarland, Ross and DeCourville (1989) in which emotion reports on 1 day of menstruation were compared with retrospective reports about the same day. One result was that retrospective emotion reports were shifted in a negative direction. This means that if the daily reports or diary entries about one's menstrual experience are compared with a more recent statement about it, the experience is presented more negatively than in the diary, i.e., the memory of the experience is negative; this finding is consistent with the assumption that menstruation has negative effects. Different sources can explain how knowledge about emotions, which can be episodic or semantic emotional knowledge, is retrieved. It follows that it is reasonable to question the ability of individuals to remember and integrate the nuances of their experiences when asked to report emotions that occurred in the past. From this, researchers have concluded that individuals tend to overestimate the

intensity of negative emotions afterwards or to later underestimate the intensity of positive emotions. The distortion of a memory or the mental reconstruction of emotions due to existing beliefs or beliefs could be a reason for this difference.

Robinson and Clore (2002) therefore propose distinguishing between episodic and semantic knowledge of emotions in order to understand the factors that might play a role in the self-disclosure of emotions. Episodic knowledge is experiential and inseparable from details of space and time, while semantic knowledge is conceptual and decontextualized, i.e., separated from details of time and place. Episodic knowledge is thus more event-specific and is subject to severe disruption and being forgotten, which means that knowledge about one's own emotions is represented at a certain place at a certain time. The use of episodic emotional knowledge probably occurs when reporting momentary emotional states, which also means that episodic knowledge cannot be used when individuals are asked, for example, to write down what they felt a few months ago. In contrast, semantic knowledge is independent of events and probably relatively protected from being influenced or forgotten. Semantic emotional knowledge consists of stable beliefs that people have about their emotions. It follows that individuals probably assume that what they felt in a certain situation or event at a certain point in time must have had a certain intensity, which was a source for later behaviors. It can be assumed that there are prefabricated beliefs one has about oneself that are separate from concrete behavior and/or experiences in everyday life. The ability to retrieve episodic information decreases very quickly after the experience, so a delay between a certain emotional episode, and its reporting leads to the loss of certain details of the episode. If the delay is particularly long, episodic details become so inaccessible that participants will switch to a semantic retrieval strategy. This means that they access their beliefs about their emotions rather than using their episodic emotional knowledge. For example, in a change project, the planned change is announced with the promise that jobs will be secure, sales and profits will return, so a rosy future awaits everyone. Surprisingly, these promises cannot be kept, and disappointment and frustration are perceived as dominating emotions. Therefore, it is no surprise that the next time such announcements are made, semantic knowledge is retrieved and is perceived more negatively than the actual situation that generated the episodic knowledge was. In summary, whenever episodic knowledge is not available, individuals resort to semantic knowledge in order to have an emotional and not only a rational explanation for their behavior at that time.

Therefore, in the context of organizational culture, the memory of emotion should not be underestimated. For example, in regard to topics such as redundancies in restructuring, not only is the memory of factual cuts in today's business relevant, but the negatively reinforced feelings that come to the surface again through semantic knowledge are also important. Every manager should be aware of the fact that with every announcement, emotions can become relevant again and not just act as an anecdote. The historical process of the development of culture should therefore not be neglected. Since socialization takes place over a period of several years, experiential knowledge is created, i.e., insights from the past influence the future actions of a company. The development process should be understood interactively as the end

product of verbal and nonverbal communication between the employees of the organization and the resulting mutual expectations. This also means that the rules of an organization's culture go through a negotiation process, which is conducted explicitly at the beginning, and the developed norms and rules are later internalized and thus transformed into implicit knowledge among employees. This is why many newcomers to an organization initially find it difficult to find their way around until the prevailing rules are learned and the individual socialization process is complete.

Corporate culture does not always develop consciously or intentionally. Therefore, learned behavior may not always be correct. Habits may have "crept in" that may have been useful in the past but are now outdated. It is not uncommon to find destructive behavior in corporate cultures that has gone uncorrected over time. If this is the case and the disadvantages of such behavior outweigh the advantages, it may be time for a culture change.

Smollan und Sayers (2009) presentation of an affective culture emphasizes how strongly a change management project is influenced by the organizational culture because it signals to the members of the organization how emotions can be experienced, expressed, and regulated in a socially accepted way. It also points out the special "adhesive effect" of culture because it connects people. A healthy organization encourages and appreciates the emotional expressiveness of its members and supports them, e.g., through training in the refinement of this ability.

A rather generic model of culture is presented by Handy (1993). It distinguishes four basic types of culture: the cultures of power, roles, tasks, and personalities. Power culture functions via the exercising of centralized political power and less via rational decision-making processes. Role culture, on the other hand, elevates logic and rationality to the main criteria in determining action. Task culture is structured similar to a network or matrix organization and is primarily concerned with resource optimization. Personality cultures are primarily found in start-ups, law firms or consulting firms that have minimal structures and follow only the goals of the owners.

In the following, the views of social constructivism are represented. Based on Morgan's (1997) argument that organizations are socially constructed realities, it is argued that organizational culture is not primarily defined by structures or rules but rather arises from the thoughts, mental models, identity, and self-concepts of the organization's members. Structures and rules are products of human thought and action. Culture thus includes all assumptions, principles, values, norms, and rules as well as all artifacts, symbols, and ceremonies involved in the everyday life of an organization. This also means investigating how an organizational culture was created in the past and should be kept alive today and in the future (Senior and Swailes 2010). In other words, organizational culture is "how things are done here" (Martin 2002). Against this background, it becomes clear how the behavior of organizational members is determined, shaped, and directed more or less openly.

Acknowledging the importance and benefits of having solid knowledge of organizational culture thus facilitates the understanding of the following:

– Internal processes when different groups come together.
– The effect of new technologies, methods, and procedures.
– The ability of a company to learn, change, and develop.

In particular, the last point is important during agile transformations, as this helps a company actively shape the adjustment to new conditions.

In the following, three concepts of organizational culture are outlined. Although they certainly do not cover the entire spectrum of culture, they represent a line of development in terms of both time and content and can be used well in contemporary thinking.

3.2 Organizational Culture: The Concept of Renald Müller

For example, Müller (1997) distinguishes between three types of organizational culture, which are characterized by social, authoritarian, and dictatorial elements. The majority of today's companies can probably be assigned to the first category, which is based on the idea of participation, while authoritarian cultures are less common. Emotions can be shown very differently in these two environments. In authoritarian and dictatorial cultures, emotions are rarely shown or openly discussed and are more likely to be suppressed to avoid the stigma of weakness. In participatory cultures, individuals are more likely to talk openly about their emotions but on an individual basis rather than in group interactions.

A starting point for the representation of culture is the work of Müller (1997), who characterizes different cultures and leadership systems. In this way, one can gain a picture from various sources of the different manifestations of organizational culture. This approach provides a valuable orientation for shaping or changing one's own culture (Table 3.1).

3.3 Organizational Culture: The Concept of Edgar Schein

Edgar Schein (1995) defines culture as a pattern of shared basic premises that a group has learned over the course of its history by dealing with its problems of external adaptation and internal integration; the pattern has proved its worth and is therefore considered binding and is passed on to new members as a rationally and emotionally correct approach to dealing with these problems. Culture is thus the result of the organization's success and not the other way around, as Peters and Waterman (1982), for example, have claimed.

The central characteristics that need to be considered in order to understand a culture are therefore the history of the organization and the experiences of the organization's members, which have led to beliefs and habits through learning and decision-making. The performance of culture is thus the long-term lifestyle of a group of individuals.

Table 3.1 Typification of organizational culture adopted from Müller (1997)

	Evolutionary	Conservative	Totalitarian
Feature	Cooperative, humanistic, social, equal, flexible, self-organized; organization as a network and living organism	Authoritarian, strictly hierarchical, competitive, Tayloristic; mechanistic processes; central departments (HR, IT, etc.); organization as a machine	Centralist, dictatorial, absolutist, characterized by numerous power struggles, selfish; rigid organization as a mental prison
Purpose and goals	Goal is to maintain the existence of the organization and its members, financial success is a means to an end, concerned with WHAT is fixed and HOW flexible the organization is	Material goals dominate, seek to secure stability through rigid processes, financial success determines status, lone wolves, little cooperation, the WHAT and HOW are fixed	Omnipotent leadership, financial success serves only to gain and maintain power
Rules	Solidarity and agreement on objectives, bottom-up change desired, minimal controls, decentralized decisions, team performance is rewarded	Collectivist rules, only top-down, strong controls, decisions made at the top of the hierarchy, an elaborated delegation of authority, individual performance is rewarded	Command and obedience are accepted without contradiction
Sanctions	Only if basic values are violated	If there is refusal to conform	Destruction of existence
Competition	Partner and competitor	Everyone who is not part of their own culture is a competitor	Anyone who is not an integral part of the organization is a competitor
Rituals	Small because change is permanent, hardly any traditions	Many submission rituals, manipulative elements	Rigid conformity rituals, pronounced symbolism, prohibitions on thinking, strong manipulation and compulsions
Emotion	Medium to high excitement, primarily pleasant emotions, hardly any aggression, confident, intrinsic motivation is important, and active handling of emotions on individual, group, organizational levels	Mixture of medium/low arousal with (un)pleasant emotions, rivalry with little aggression, unfriendly, lack of trust, extrinsic motivation has priority, no active handling of emotions	High levels of agitation, unpleasant emotions, regular aggression, hostility, fear, joylessness, emotions used only for intimidation and to maintain power

Table 3.2 Level of organizational culture adopted from Schein (1995)

Level	Description	Examples
Artifacts	Visible structures and processes in the company; easy to grasp, but difficult to interpret	Architecture, interior design, documents (e.g., job advertisements), designed landscape, work processes, hierarchical levels, number of employees, logos/emblems, clothing, and information channels that create transparency regarding successes, activities and errors
Codified values	Strategies, goals, philosophy, codified justifications of action	Dealings with colleagues, partners, customers, conflicts, leadership, team and information behavior, language and forms of expression, incentive events, rituals, and history such as legends and anecdotes
Basic premises and assumptions	Unconscious and self-evident views, perceptions, thoughts, emotions, norms, and values that form the patterns of action and thus the basic premises of the organization	Attitude regarding innovation (creativity, willingness to make mistakes) appreciation, cooperation, attitude regarding organization (loyalty, identification), view of the environment social relations in the organization, relationship to truth and reality, and attitude regarding nature, technology, and human action

Cultures start with leaders who transfer their own values and expectations to a group. If this group is successful, a culture is established that defines forms of leadership acceptable to future generations. Recognizing the limits of one's own culture and the benefits of constantly developing it further are a core leadership quality. Employees present the greatest challenge of all.

Individuals appear to sometimes be classified as part of a group or organization based on how likely they are to perceive changes in the environment rather than in an information system. The group is necessary for the integration of the individual in order to make progress towards a desired goal, i.e., the group is more or more effective than the sum of its parts. The organization, in turn, forms the overall framework through which various groups are functionally differentiated based on a division of labor and work towards an overall goal; the organization is also the interface the groups have with the market or the environment that is relevant to the organization. Schein distinguishes three levels of culture, as shown in Table 3.2.

The representation in Table 3.2 clarifies that many substantial aspects within an organization refer to everyday concerns, which are internalized over time by the organization's members and are very stable. This is why it is so difficult to determine and change the premises or laws that determine the basic coexistence of a group. A starting point might be the clarification of norms and values. Social norms are generally understood to be recognized rules for accepted behavior or the behavior expected by others, i.e., norms define what is appropriate behavior within a society

or organization. A norm is defined when something is binding, i.e., how people should exist and behave under certain conditions. Norms therefore also show themselves to be expectations related to the obligatory behavior of all group members but are usually conditional, i.e., limited or related to certain situations. In principle, norms refer to behaviors that are to be adhered to, and nonconforming or deviant behavior entails consequences in the form of sanctions (Stangl 2018). Values are explicit or implicit notions that an individual or a group has regarding what is desirable, and these notions influence the choice of possible behaviors, action alternatives, and goals. In organizations, they are often formulated as the visions, mission statements, strategies, and goals of the organization. In other words, the values of an organization are reflected in its corporate policy and thus illustrate what is desirable, e.g., if an organization wants to be perceived as a global player, this presupposes that internationality is inevitable. If the members of an organization now support these values and incorporate them into their decisions and actions, they shape the values of the organizational culture.

The interaction of norms and values leads to different forms of organizational culture. In a strong group culture, cooperation becomes increasingly smooth over time. People begin to work together like a well-oiled machine. Peers understand each other more readily, and slang or shorthand is enough. However, this has the consequence of differentiating the group from the outside environment. Behavioral norms become increasingly unconscious, rules become internalized, and members become "strange" when viewed from the outside. Having such a culture prevents rapid adaptation to changes from the environment and the surroundings. If this prevents cross-functional cooperation, which is fundamental to businesses, established norms and values can become dysfunctional across the entire organization.

This is exactly where the business world found itself when the world of agile IT emerged! What ensures the functioning of a group within a business today also prevents it from adapting in the future. The existing culture of a group determines the breadth and reach of the group's vision and that of individual group members at work.

3.4 Organizational Culture: The Concept of Frederic LaLoux

LaLoux (2014) is convinced that organizational culture is of much greater importance and should be more effective than it currently is. It should be supported more by the purpose of the organization than by individual mindsets, beliefs or norms. He adapts the model of Ken Wilber (1996), the founder of integral theory, which proposes looking at everything from an internal and external perspective. The external perspective includes tangible, visible, and measurable aspects that are connected to the internal perspective, which comprises thoughts, emotions, and perceptions. This happens from both the perspective of the individual and the perspective of the collective or group (Table 3.3).

Table 3.3 Wilber's culture model adopted from LaLoux (2014)

	Interior	Exterior
Individual	Convictions, basic assumptions	Behavior
Group/ Collective	Organizational culture	Organizational systems, e.g., structures, processes, and practices

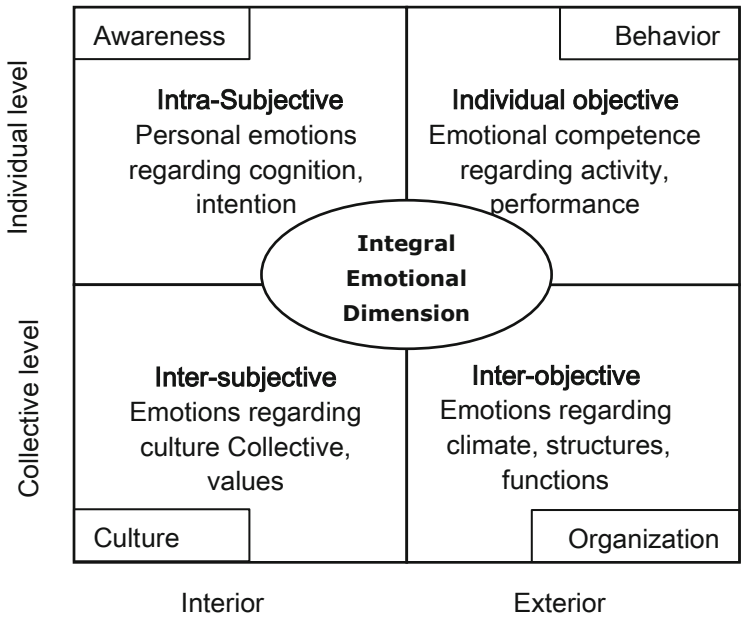

Fig. 3.1 Emotional dimensions from the perspective of integral theory adopted from Küpers and Weibler (2008)

Küpers and Weibler (2008) extend this approach by explicitly addressing the emotional dimension. These four integral emotional dimensions, as shown in Fig. 3.1, constitute the awareness or intra-subjectivity of personal emotions as well as organizational culture in an intersubjective experience with emotions related to the team, the collective and various values. On the external level, there are objective behaviors by individuals that include emotional competencies, and finally, the organization engenders intersubjective emotions regarding structures and functions.

The quadrant of consciousness refers to the inner aspects of the emotions, subjectively felt sensations, emotional unconsciousness, implicit knowledge, and memory, and pre-social levels of emotions within individuals. In addition, personal feelings, as a type of "resource," must be related to other inner abilities of the individual, such as cognition, intentions, and will as well as the interaction of those abilities. The intrapersonal or inner emotional reality of organization members implies that they have an authentic relationship with their own feelings, so the

capacity be aware of one's own range of feelings and those of others without fear of reprisal must be developed. This requires them to create an understanding involving honesty, fairness, and respect for themselves and those they are dealing with. On the other hand, those who are uncertain about their emotional capacity promote an organizational climate that robs others of their emotional freedom. Therefore, all members should consistently balance their feelings with the needs of the organization. Various studies have confirmed this by showing a significant correlation between emotional maturity, self-esteem, and personal effectiveness.

The second behavioral quadrant refers to the outer aspects of an individual and thus to the expression of feelings. In particular, it deals with emotional competencies and manifested feelings in connection with external knowledge, behavior, gestures, and performance. Experienced employees trained in emotional skills are able to recognize the different effects of the timing, tempo, and sequencing of their actions. They are also familiar with different emotional styles so that they can react flexibly and adaptably in emotional situations. They can also maintain emotional relationships and openly express their feelings, thus contributing to the functioning of the organization. Leaders who provide an example of emotionally competent leadership and coaching can send a strong message to all employees that it is important to take an interest in emotions and to continue their emotional education. This aspect is, of course, also related to individual performance.

The third quadrant, culture, refers to the different sociocultural dimensions of shared emotions that have been created across the history of the organization through its anchored mental models, rules, and values over time. Culture is, so to speak, the emotional memory of the organization. Emotions are thus part of the interpersonal community that is jointly constituted, developed, expressed, repeatedly evaluated and, if necessary, adapted. Emotions are thus understood as a medium of social communication that plays a role in the various processes of an organization that should not be underestimated, e.g., in joint negotiations or in similar processes such as decision-making. For example, solidarity is an emotion derived from the social interaction of the group members and, in positive cases, can create trust and enthusiasm.

The fourth quadrant establishes the relationship of emotion to dimensions of the organization such as processes and workflow, structures, technology, design, and other components. This is also where display or feeling rules are located, i.e., the rules that dictate the type and extent of emotions that may be shown. The bridging function of the quadrant is important because it establishes the connections among emotion, the organization, and the performance system.

All four quadrants are interdependent, limit each other's influence and thus influence each other's effects. Thus, the whole structure is dynamic, i.e., it grows and develops further.

LaLoux tries to illustrate this connection with an example. If the board of directors of an organization is convinced that employees are motivated by money and performance recognition (quadrant 1), it is understandable that a corresponding incentive system that rewards the achievement of goals with bonus payments will be introduced (quadrant 4). As a result, employees will behave individually and

selfishly, i.e., their behavior will be aligned with these requirements (quadrant 2). The result will be a culture that values successful lone fighters rather than team players (quadrant 3).

LaLoux's remarks are based on the work of Don Beck, one of the creators of the concept of spiral dynamics, and the philosopher Ken Wilber, who developed integral theory in the 1990s (Lambertz 2017). Lambertz argues that LaLoux's approach has certain religious undertones, which is expressed in its demands for an awakening consciousness, intimating the development towards a better society. The examples given by LaLoux are intended to prove this theory empirically and are combined with generalizations about meditation and mindfulness. Ken Wilber assumes that humanity has been in a crisis since postmodernity. The fragmentation of the world has increased, and at the same time, the paths of spirituality and science have separated. With his integral theory, Wilber wants to unify the Western and Eastern schools of thought with a focus on meditation and mindfulness. Lambertz (2017) emphasizes at this point that Wilber's works are more of a documentation of his personal spiritual quest and are thus meant to give the impression of scientific validity. LaLoux's attempt to apply this way of thinking to organizational theory problems such as transformation or change management is bold. It assumes that the right amount of meditation and mindfulness will suddenly lead to an improvement of transformation processes. An opposite effect can also occur, namely, that change is blocked by a spiritual exaggeration of "community." In this case, the urgently needed critical thinking does not take place, but individuals succumb to the group think effect and lull themselves into complacency. However, change requires constructive asymmetries (e.g., disobedience) and not an intellectual pap that takes up space but does not truly transform anything. Given this background, the cited model developed according to Wilber's ideas also seems questionably valid. Culture is the sum of norms and values, artifacts and codified knowledge, i.e., it represents the foundation of an organization. Behavior is an expression of this and influences culture. This process of socialization has been described above, but LaLoux ignores this insight and refers to the power of spirituality. There are numerous other points of criticism of this model, but the current list suffices for the purposes of this text.

3.5 Design and Change in Organizational Culture

3.5.1 General

Designing and changing an organizational culture are actually aspects of any change management project. Very often, however, the agenda of these projects also includes other topics, e.g., the introduction of SAFe®, restructuring, the redesign of business processes or the improvement of competitiveness. Organizational culture is usually not explicitly mentioned but is implicitly considered resistance that needs to be broken, reduced or otherwise eliminated in some form. Different change processes, adapted to the agile business context of the emotion economy, will be discussed in the next chapter. As preparation for this, possible approaches to changing

organizational culture will be discussed here. There are good motivations for actively shaping organizational culture. A balanced culture makes it possible to use the advantages of a strong culture to achieve top performance with motivated, activated, and valued employees but also to permit some weakness so that signals from external and internal environments can be perceived. In this context, it is important to take a closer look at some explanatory factors of cultural balance:

- How do managers behave?
- How is the daily work routine organized for employees?
- What kind of esteem prevails in companies?
- Which values are noticeably lived?
- Which role models employees can orient themselves in relation to?
- Who exemplifies what and how?
- Who omits what?

This list is incomplete, but the aspects listed regularly influence how normal employees behave across all hierarchical levels and which standards they can orient themselves with. As explained in Chap. 1, megatrends offer numerous opportunities not only to strive for competitiveness in terms of technical improvements in processes, structures, and technologies but also to think about sociocultural factors such as demographic change. Internal factors can include subcultures—see Chap. 1 and the presentation of SAFe®—changes in the board of directors or management, and high employee turnover.

Cultural change should always be understood as a process that develops regularly, whether it is actively designed or lacks conscious intervention; culture is always there and is often very robust and resistant in character. In general, there are several steps to culture changes. The trigger is often a crisis that calls existing norms and patterns of action into question. This results in uncertainty among the members of the organization regarding typical behaviors, such as the way to deal with customers, quality assurance for services and products, and personnel management aspects, which lose credibility and are then criticized. A new management team is often installed, and this team tries to establish new orientation patterns or subcultures that are aligned with other norms and clearly distinguished from the existing culture. This eventually leads to conflicts, as "old" and "new" cultures have become incompatible. If it is possible to master this crisis with a new orientation through, for example, appropriate change interventions, new behavioral patterns, norms or values can be established that manifest a new culture.

If the members of the organization, often the managers who initiate a top-down process, decide to actively change the culture, the management of learning must be anchored, as this allows space—cognitively and emotionally—for change. Breaking the rules of the game and questioning the basic assumptions of the culture (i.e., the norms, values, behaviors, mental models) are critical to success.

The red-green model of Bormann et al. represents an effective and proven procedure Bormann et al. (2019). It can also be used for other change projects and is not limited to certain areas of application. Red represents the initial situation, and

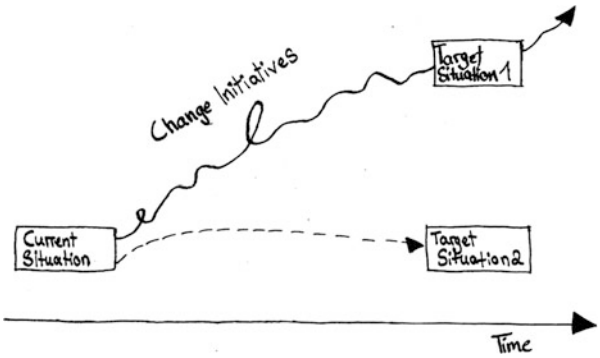

Fig. 3.2 The RED (Current)–GREEN (Target) model based on Bormann et al. (2019)

green represents the target situation. Both points are connected by a line that represents the change project.

The "red box" defines the reason for this project, e.g., "frequently escalating conflicts in the cooperation between development and sales" lead to great emotional stress for all participants. The problem is characterized by longer development times and decreasing customer satisfaction, with a simultaneous decline in sales.

The "green box" then describes what should be different after the project concludes or what should be achieved. For example, professional cooperation that is characterized by early conflict management should be achieved. At the same time, it should also be determined how to measure or evaluate whether the project was effective—that is, whether it had a real impact. The challenge here is to distinguish the goal from the measure because measures are marked by the blue line that outlines the actual change measures. For example, training measures should improve the ability to express and deal with emotions in order to channel the energy in escalations differently (Fig. 3.2).

In principle, it can be said that in contrast to a structural and strategic development project, a cultural development or change project is process-oriented; i.e., it can be planned only as a framework, and it is situation-specific. Of course, this requires an awareness of culture that includes a clear commitment by management to cultural change. Additionally, in the sense of cocreation, a high degree of self-organization must be enabled to shape the renewal from within using the existing know-how. This also requires a constant balancing of individual and organizational interests in order to provide the necessary freedom for a dynamic solution. Finally, the conscious inclusion of emotional levels through the interactive development of emotional images is necessary. Some instruments for achieving this are presented in Chap. 5, with special consideration given to the design aspects of team emotions.

3.5.2 Changing Organizational Culture

3.5.2.1 The Approach of Renald Müller

To change an organizational culture, Müller suggests to using the maturity model. With the help of this model, various aspects and goals of the organization, managers, employees, processes, and IT infrastructures can be qualitatively examined and analyzed through external and self-assessment. By diagnosing the organization's degree of maturity, the necessary measures, e.g., increasing corporate development, improving performance, determining management quality or characterizing the maturity of a corporate culture, can then be derived. The benefits for continuous improvement measures can also cover a wide range, including

- Being able to compare one company in the same industry sector with companies that have a higher degree of maturity
- Increasing cooperation between divisions, locations, or departments
- Increasing connectivity for change measures and goals and orientations
- Providing clues for targeted management and employee development.

There are other models that include four or even five levels. The maturity level model is shown in Table 3.4.

Müller describes level 1, with a degree of maturity of 0–1, as "provisional" to make it clear that these organizations have not yet implemented any defined structures or processes. He very pointedly describes this form as an "artist or slave community," thus expressing that the processes of these organizations or leadership systems can be described as either spontaneous and informal, in the absence of any dependency, or as rigid and dictatorial. In reality, these preorganizational systems are probably notable exceptions.

Level 2, with a degree of maturity of <1–2, can be classified as "defined"; i.e., the organizational structure and process landscape are regulated based on the division of labor and are strongly hierarchical. The high degree of specialization is associated with strict control procedures of repetitive processes. Measures for change are instituted only during existential crises and are accompanied by the associated suffering.

The third level, with a degree of maturity of <2–3, is characterized as "optimized" and represents a lean system in which mechanisms for the continuous improvement of structures and processes have been implement; the system can thus

Table 3.4 Maturity level model based on Müller (1997)

Level	Degree of maturity	Description	Type
1	0–1	Provisional	Preorganizational system
2	<1–2	Defined	Mechanical system
3	<2–3	Optimized	Lean system
4	<3–4	Self-organized	Evolutionary system

act situationally and contextually. Decentralized decision and action spaces allow a high degree of organizational flexibility.

Finally, level 4, with a maturity level of <3–4, can be described as a "self-organized" evolutionary system. Müller characterizes it as an evolutionarily changing organism that can adapt flexibly and quickly to changing market conditions. Structures and processes can be changed dynamically and have only temporary validity. An organization at level 4 represents an image of an ideal organization in which everyone works constructively, loyally, and in solidarity.

The maturity model is applied either through self-assessment or with the help of external consultants who conduct interviews to determine the organization's maturity level. Open communication and a willingness to cooperate are essential to achieve objective results. Once a result has been achieved, the next step is to draw up an action plan that outlines the steps and measures needed to reach the next level in the model. Müller advocates a radical approach and is not afraid to propose that inhibitors of change be removed from positions of responsibility. Many other suggested measures are similarly disruptive, so doubts remain as to whether such a radical approach can actually achieve the desired goal of working in solidarity.

3.5.2.2 The Approach of Edgar Schein

In Schein's model (Schein 1995), the second level involves professed values, which include strategies, goals, philosophy, and codified justifications of an organization's actions. Thus, interactions with colleagues, partners, customers, conflicts, leadership, team and information behavior, language and forms of expression, incentive events, rituals, and history such as sagas and anecdotes can be placed in the center of attention. It can also be deduced from the model for a cultural change that intensive and conscious symbols and signs are used to give culture a visible and tangible character. Existing emotions should be visualized with the appropriate methods to understand their meaning and impact. If, for example, "fear" is the predominant emotion in the digitalization process, it helps to name it, but the intensity, feeling, and individual assignment of meaning to the emotion should be discussed openly. The extent of the emotionalization of culture can in this way be grasped and internalized by the members of the organization more quickly. Strong symbols and visible sanctions have an additional recall effect so that new values and interpretation patterns can be developed.

In many of the methods for changing corporate culture, managers play a central role in shaping and developing that culture. Managers can support culture and shape it by understanding the importance of symbolic leadership and acting as "scriptwriters, directors, and actors." Different types of culture can be encouraged and supported by different leadership styles. Managers in the organization are essential for motivating the internalization of beliefs, premises, and values, and in a cocreation process, they are the drivers.

With his list of fundamental mechanisms of action and change, Schein provides a good instrument for managers in implementing cultural change in their companies. He distinguishes between "primary" and "secondary" mechanisms of cultural anchoring. One of the most effective (primary) mechanisms is the way in which

the manager focuses her attention, i.e., by asking questions such as, "What is regularly commented on, assessed and systematically evaluated?" Secondary mechanisms can be influenced by primary mechanisms.

Interpretation and symbolization not only promote the manifestation of artifacts but also have an influence on the perception and interpretation of reality—in other words, on the processes of "interpretation" and "symbolization." The "model" also refers, in a sense, to the historical context from which the meaning of artifacts, values and symbols emerged. According to the model, anyone who wants to change a corporate culture must ensure that the impulses and changes that are created are visible to everyone so that new patterns are perceived in the realization phase and corresponding conclusions are possible in the interpretation phase.

These phases are mutually dependent, i.e., perception shapes the interpretation and the resulting rituals—and vice versa, existing values will always shape the interpretation of "corporate reality."

The model can also be used to analyze the emergence of corporate culture because it clearly shows how the emergence of symbols and artifacts in a social system depends on the perceptive capacity of the individuals in that system.

3.5.2.3 The Approach of Frederic LaLoux

LaLoux, on the other hand, finds it nonsensical to actively make cultural changes, since as a rule, every organization has a form of hierarchy and thus, all attempts to flatten the hierarchy and establish a rather nonhierarchical culture fail. In his vision of a self-management structure, which comprises all of the self-organized teams, the "right" culture unfolds by itself. Employees do not have to be made to participate or convinced of the right way forward, so money and energy that would otherwise have been spent on culture management tasks can be saved. LaLoux believes that "if managers have no weapons, there is no need to invest in a culture that keeps people from using their weapons" (Laloux 2014). This does not mean, however, that culture is less important or necessary. Rather, culture has more impact because it is no longer the means of choice for eliminating hierarchy-related problems but is instead used solely to ensure an efficient flow of values. LaLoux believes that culture and organization are only different facets of the same reality and that both deserve the same amount of attention. However, he emphasizes that when it comes to culture, the context and purpose of a company is also important, e.g., depending on the industry, customer, product, and service, differences can arise. For example, working together in a company in the food industry looks different from working together in an advertising agency. Certain basic values, e.g., complying with the legal framework and agreed upon standards so that each organization can develop and maintain its unique culture, are certainly the same.

He proposes three measures for cultural development. First, he proposes the application of procedures that enable collaborative behavior to be practiced together in order to visualize similarities or differences in behavior. This could take place, for example, in repetitive rituals that enable regular exchanges. Second, he proposes the identification of individuals who can act as role models in terms of desired behaviors. Third, he proposes the introduction of a systematic approach that allows

all members of the organization to check their mindset and beliefs to see if they are supporting or undermining the culture of the organization. Overall, the approach is quite complicated, and its subliminal alignment with the philosophy of Wilber and with spiral dynamics does not make it easier to find a pragmatic approach to implementation. It remains doubtful whether esotericism is the right guiding theory for changing organizational culture. For further criticism of LaLoux's approach, see Sect. 3.5.1.

3.6 Summary

As described in Sect. 2.6, an organization's culture determines the life of individuals and groups in the company. The social function of emotions and their contribution to the formation of a group identity is central in discussions about culture change. Emotions within and between teams or groups motivate people to carry out certain activities that relate to specific situations in the group. For example, there may be a need or desire to confront, attack, or avoid another group; to support members of one's own group or to seek closeness with others without personally benefiting from it (Fig. 3.3).

Culture is a result of the predominant group emotions: Here, an assessment of emotions is made at the group level, and a tendency for certain activities is linked to that assessment. This is expressed, for example, in statements such as "You are threatening us!" or "We are angry with you." These are important motivations for certain forms of behavior in groups. Assessment is the only way to change or improve a negative situation to which a group is exposed. Emotions such as anger, which are directed at a particular group, can then be linked to prejudiced attitudes and discriminatory behavior.

The three concepts of organizational culture presented here provide a framework for systematically dealing with and shaping emotions not only at the individual level but also at the group level. Despite the pall that has been cast on LaLoux's ideas, the concept of illusion seems to be the most convincing because that concept is not overloaded with superfluous ideology or esotericism, but rather presents a plausible approach that enables understanding and provides steps for implementation.

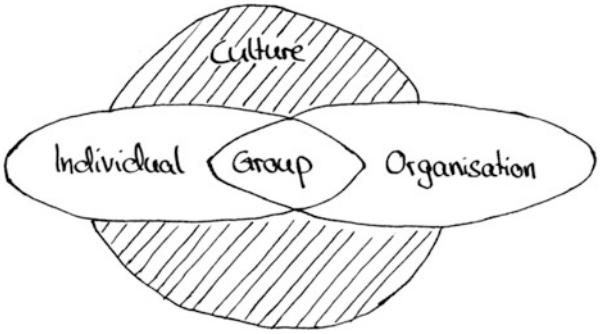

Fig. 3.3 Individual, group, organization, embedded in culture adopted from Schein (1995)

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Emotions and Agile Change

4

4.1 Overview and Orientation

Although the emotions involved in change projects have been considered in one form or another in the past, previous discussions have differed based on whether the change projects being discussed are planned in advance or develop as they progress.

Until the mid-1980s, the term "planned change" was commonly used because, despite the experience of the oil price shock in the previous decade, the business world was relatively stable, and there was a consensus that change could be planned. This resulted in the formulation of plans at the highest levels of management as to what and how to change. The primary goal was to achieve behavioral change in order to become more profitable. There are many points of criticism of the idea of planned change, including that the approach is too simple and mechanistically designed and therefore no longer fits in a world of continuous change. The assumption that organizations operate in a stable environment that allows a planned change to be carried through to the next stable state is no longer considered valid. Additionally, the emphasis on small, isolated projects that produced incremental change was discarded as outdated, as the internal functional dependency within the organization often did not take the different functions' interdependency into account; thus, many projects were classified as unsuccessful. Additionally, the approach has been judged unsuitable when fast and large change is required. Additionally, questions of power and politics in the organization and the related conflicts are ignored and go unaddressed. This becomes clear in regard to managing and controlling the project because not all stakeholders have the same interests and goals, and a C-level dominated approach often struggles to enforce the change goals. In summary, it can be said that the human factor is not sufficiently represented in these approaches.

The emergent approach to change management addresses this criticism by considering other assumptions in this process. Due to the different perspective this approach assumes that the environment is no longer stable but complex and uncertain, a completely different way of thinking about what change actually is. Instead of carrying out planned activities, change is seen as a continuous and open-ended

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Future of Business and Finance, https://doi.org/10.1007/978-3-658-33489-5_4

Table 4.1 Overview of planned versus emerging change

Assumptions	Planned change	Emergent change
Internal environment	Stable	Complex, uncertain
External environment		
Nature of the change	Series of planned activities in a certain period of time	Continuous, unpredictable, open-ended, learning, and adaptation process to changing conditions
Management	Top-down, C-level dominant	Bottom-up, employee oriented
Focus	Behavioral change based on preplanned steps	Culture, power, willingness to change, moderation of change

Source: adopted from By (2005)

process of learning and adaptation to changing conditions. Supported by a bottom-up, employee-oriented approach, change should be facilitated and no longer just implemented.

Any explicit consideration of emotions, on the other hand, has not been incorporated. Coch and French (1948) presented their first study based on the work of Lewin (Burnes 2004), and they dealt with the emotions of workers during the introduction of new production methods. Resistance to change is a recurring concept in the literature and practice and is often associated with the negative attitudes of workers or counterproductive behavior regarding change (Greiner 1972; Ford et al. 2008, Furst and Cable 2008). Although positive effects and potential benefits of resistance, such as balancing internal and external influences to ensure the stability of the organization (Waddell and Sohal 1998), are also presented, resistance is primarily seen as an enemy to be defeated. In addition to the special topic of resistance, emotions are conceptualized in the context of change management and change readiness.

In the literature on change management, the importance of emotions is only sparsely discussed, given the number of publications on general change. Two issues stand out in particular: first, the almost exclusive focus on individual experiences in the perception of emotion and, second, the lack of empirical support in research on emotions in teams, working groups, and organizations. How emotions are shared or what social function emotion actually fulfills is rarely commented on. Even within the Scaled Agile Framework (SAFe®), neither conceptualizations of emotions nor agile change processes are reflected. Instead, an adaptation of Kotter's (2014) concept—see Sect. 1.2—is used for agile development. In other words, this is the continuation or even further development of an emergent change concept as presented in Table 4.1. However, this concept is only provisionally suitable for agile change, since many ideas are based on classical approaches of top-down or "leader-centric" change, i.e., its model is primarily tailored to one type of change process, namely, to prompt large and self-satisfied companies to move and to change in such a way that they become competitive again and generate appropriate profits. Kotter has large change projects in mind but ignores countless other change

Table 4.2 Requirements of a digital change model compared to those of Kotter's XLR8 (2014)

Change in the 21st century (Kotter 2014, XLR8)	Digital agile change (based on Gibbons 2019a)
Create a sense of urgency	Everybody is aware of the urgency; more strategic coherence, prioritization, relevance, and significance are needed
Build a guiding coalition	The cocreation of a vision involves everyone
Form a strategic vision and Initiatives	Managers are placed on all levels, therefore self-organization, social networks, and competence groups can be used
Enlist a volunteer army	Permanent dialogue, real-time, short video messages, direct and immediate feedback
Enable action by removing barriers	Do not generate MA surveys, but create visibility; if cocreated, then the MA of change already owns the change anyway; personalization, blogs, chats, scaled messages
Generate short-term wins	Use of Scrum, iteration, prototypes, experiments, trials, pilots
Sustain acceleration	Intrinsic motivation through the communication of purposes, meanings, values, learning, ethical frameworks, and personal development is important
Institute change	Change portfolio, replace the old with the new quickly and stabilize it, 2 speeds, project-based approach, self-organized teams, flexible structures, strategy, and planning from the beginning

situations where the basis is completely different, and they thus require a different approach. The fact that he actually describes only one out of many change challenges with his model is rarely acknowledged, and many board members and experts therefore apply his model to change situations that it actually does not fit well at all.

Table 4.2 summarizes the most important differences between Kotter's concept and the requirements for agile change. Of course, Kotter is not the only one to suggest such a model; there are countless variants that are based on or focus on different aspects. This is justified because the world and the framework conditions are constantly changing, and change processes have to adapt to these changes by producing updated concepts. However, all phase models share the assumption that every change process is basically the same, which is rarely the case in reality, particularly as this is being turned upside down due to digital disruptions in business models. The takeover of a company or the implementation of a cost-cutting program with massive staff reductions will generate different emotions in those affected than a software changeover or the introduction of a new mission statement. What sometimes makes digital change look so frightening is uncertainty about how it will unfold in the future. It can go in a positive direction, with greater prosperity and interesting jobs, or in a negative direction, with mass unemployment and impoverishment, but the deciding factor is the future; nobody knows what will happen, but everyone wants to ensure that their individual working environment is familiar and predictable.

Therefore, instead of relying on phase models, it makes more sense to explore the history of the company and to think about employees and managers, empathize with them and consider how they perceive and experience the situation. It is also useful to

discuss the approach envisaged with experienced confidants and to pay attention to their reactions. For example, such an approach may be excluded or modified depending on previous, usually bad, experiences with it.

Now that agile change management concepts are more common, it is even more urgent to deal with emotion in change and adjustment situations. How can agility, emotion, and change be successfully integrated? First, a summary of the most important points of agile change is presented, followed by an inventory of the common emotion concepts in change.

What distinguishes agile or emotional change from classic change? Using the background of megatrends and the resulting demands on digital leadership, Chap. 1 outlines what an agile change could look like and what proposals already exist. Following Gibbons (2019a) it is necessary to adapt the change process and the process model to these circumstances. A prerequisite for doing so is restructuring the way change is thought about. Gibbons suggests four structural elements of this restructuring. Based on a new change paradigm, a distinction is then made between change leadership, change strategy, and change tactics.

The new **change paradigm assumes that** rather than there being a one-time opportunity to change something, change will always be present. As a result, several change projects must be carried out simultaneously, at different times, in parallel, and an organization-wide willingness to change must be coupled with the necessary skills for that change. Willingness to learn is a prerequisite for a bottom-up approach, as knowledge, ideas and problem solving must be applied dynamically and flexibly in each respective situation. Accordingly, leadership skills, structures, and processes must be anchored throughout the entire organization and cannot—as is common practice today—be transferred to change agents, consultants or other selected employees.

Change leadership requires that there is an internal manager who deals with the change project as part of his daily routine. His focus is on the development and formulation of the change strategy, particularly the elaboration of a change story or strategic narrative—see also the presentation of the instruments in Chap. 5—so that agile change competencies can be built up. Change should thus be repositioned as an "ordinary" competence that is mastered by every employee and not just delegated to external consultants or change agents. This can also eliminate the regular and undesirable task of putting out fires. For managers, the modeling of leadership behavior, including personal changes in awareness and behavior, is also important. Leadership is especially critical before a project is set up and during the first phases of implementation. Those who gamble away trust and authenticity here will rarely be successful. Clear, trustworthy communication and a fair discussion about conflicts and differing opinions are central elements of leadership in this stage.

The **change strategy** focuses on "WHAT" is to be achieved, i.e., goals and ways to achieve them. Over time, this task has become much more complex and challenging, since not only is change a goal, but management has to perform a complete set of (sub)change projects simultaneously. In addition, this role is extended to include the tasks of a context activator, i.e., the creation of supporting conditions must be ensured. As if that were not enough, managers in this phase must also ensure that the

risks and performance of the change project are monitored across all affected areas. If corrections are necessary, these must also be discussed and decided upon in the individual teams, and the further course of the project must be planned. Furthermore, the development of the long-term change competencies of employees must be balanced with medium-term program or project synergies. It would be fatal for a project if a number of participants broaden their competence profile through extensive training but no progress in the achievement of objectives is detected. Even "common sense" advice should be questioned in order to arrive at truly creative, new and appropriate organizational and social solutions that are also profitable.

Finally, a suitable **change tactic** must be planned and executed. Here the focus is on the process, i.e., "HOW" the change strategy should be realized: which events should take place when, which communication and collaboration tools should be used, and how should/can/must employees become involved. The organization and its processes, culture, and people must be brought "under one conceptual roof," and project results must be achieved at the same time. The portfolio must be kept in view, and the effectiveness of the individual projects must simultaneously be assessed and controlled. These goals are also aimed at optimizing the cost-benefit aspect to avoid making large investments in, e.g., new IT architectures, which are relevant only for a small part of the organization and do not benefit the entire organization. Short-term action and achieving results on the basis of a solid change strategy are in the foreground. This also means that the use of project resources is optimized, leaving sufficient time and leadership energy to take care of external and internal stakeholders and other interest groups. The symbolic significance of the behavior of key stakeholders is particularly important, as they are role models who must visibly exemplify new behavior to lend weight and authenticity to the change. In this way, managers at other hierarchical levels can also be confronted with possibly noncompliant behavior and thus become further developed.

Gibbon's (2019a, b) approach does not explicitly conceptualize emotions, but it does establish a framework within which emotions can be considered. This is not necessarily the case with classical work that has been developed on the basis of other assumptions but gives some hints as to what can be considered. For example, Talat (2017) describes the importance of emotions in organizational change management from ancient times to the present from a variety of theoretical perspectives. From a psychological perspective, he describes the "security–uncertainty continuum," which maps the possible manifestations of positive and negative emotions. The greater the uncertainty, the greater are feelings of fear, e.g., after a change project, of becoming unemployed.

In a concept previously by Crites et al. (1994), emotions were addressed as discrete units, e.g., love, hate, sadness, happiness, anger, and boredom, that can take on both positive and negative qualities and intensities in change processes. However, the research focus was on the analysis of cognition and affect regarding attitudes of organizational members, making the research only limitedly applicable to the current discussion. However, the value of that work lies in its determination of whether the measurement of attitudes is primarily influenced by

emotional or cognitive information. Here, therefore, initial indications that point to the importance of emotions can be generated.

Liu and Perrewé (2005) further developed this approach by presenting a cognitive-emotional process model that also investigated the development of and change in emotions over the course of a change project. An important result of their study was that the timing of communication about important content (namely, cognitive components, e.g., insights regarding the status of the company, and emotional components, e.g., the extent of the crisis or the threat and optimism of solving problems) between managers and affected persons should be timed very precisely in order to strengthen positive emotions and mitigate negative emotions. In other words, an emotional appeal can determine success or failure, and a manager should be aware that socially constructed emotional rhetoric is an indispensable resource in communication (Talat 2017).

However, until now, these studies have focused only on the investigation of emotions at a given point in time. The development or change in emotions over a period of time has not been considered. Likewise, references to recurring change situations are missing; i.e., the pressure to adapt and the associated need for change have not been considered (Klarner et al. 2011). Basically, many studies assume that behavior is a result of the emotions triggered in a change context or try to explain the relationship between emotions and the behavior of employees (Liu and Perrewé 2005, Avey et al. 2008, Klarner et al. 2011). How emotions arise, how they can be regulated and what role managers can play in this process are not explained further, but it is accepted as a fact that the adaptation behavior of employees is controlled by emotions (Scherer 2005). The existence of emotions is recognized and taken into account in numerous approaches. For example, Scherer (2009) developed a dynamic process model, and Möller added an emotional dimension to an existing change process (Möller 2014).

Further important components in the successful design of change projects are the creation of a willingness to change or change readiness and the integration of emotional concepts in these processes.

Holt et al. (2007, p. 235) define change readiness as:

> (...) a comprehensive attitude that is influenced simultaneously by the content (i.e., what is being changed), the process (i.e., how the change is being implemented), the context (i.e., circumstances under which the change is occurring), and the individuals (i.e., characteristics of those being asked to change) involved. Furthermore, readiness collectively reflects the extent to which an individual or individuals are cognitively and emotionally inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo.

This definition can then be used as a conceptual framework to guide the development of a change readiness measure. The content, process, and context of the change process as well as the character traits of the individuals involved then represent the basis for possible behaviors among those individuals.

4.2 Emotions in the Change Readiness Process

Stevens (2013) and Rafferty et al. (2013) take a similar approach, i.e., the rational and emotional components in change readiness concepts are integrated into their model. Rafferty et al. (2013) propose a multilevel framework that considers not only individuals but also teams and the organization as a whole. This is important because emotion is also taken into account in the different working groups. In the construct of change readiness, Rafferty analyzes the preceding factors that lead to change readiness. In an early phase in the framework, elements are examined that will be relevant in a later change project. This enables the emergence of dynamic development capabilities to be demonstrated at the organizational level. This ability is important because it enables the transfer of routine skills, which tend to occur in static structures, into dynamic or agile environments. Figure 4.1 shows the relationship between the external necessities of adaptation and internal contextual enablers in achieving a willingness to change, which is both a cognitive and an affective concept. This process is repetitive; i.e., it can take days or even months to complete, depending on the time dimensions the project is based on and the cognitive and emotional interventions that are carried out. At the individual level, cognitive readiness involves the conviction that the intended change is necessary and that the capacities, skills, and competencies necessary for this change are also present in the organization and individually. The appropriateness of the change in terms of the need for action must also be positively anchored, as must belief in managers' support throughout the process. Furthermore, the personal benefits, be they through financial

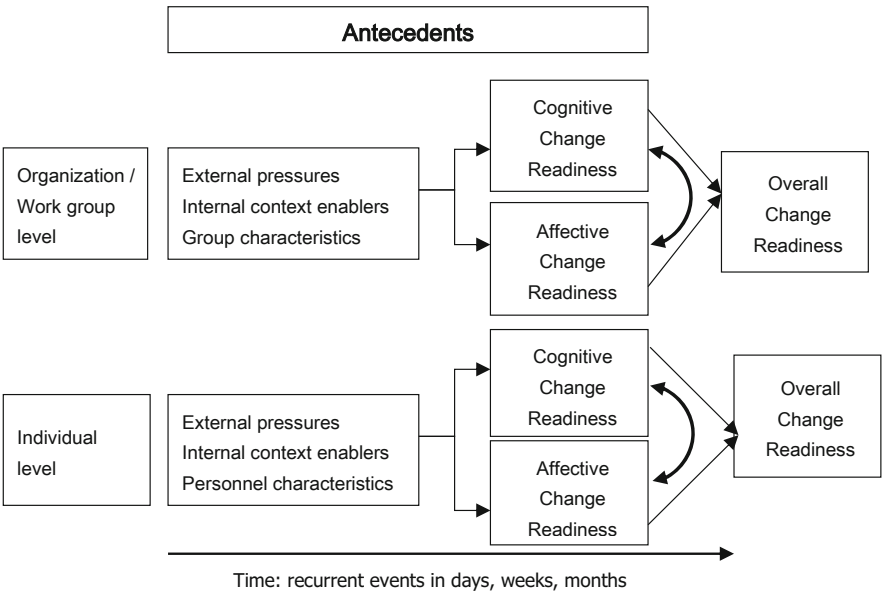

Fig. 4.1 Multilevel framework based on Rafferty et al. (2013) and Kupiek (2016)

incentives, job security or promotions, should also be made clear in the case of a commitment to the change project in order to offer individuals the greatest possible incentives. The affective components are listed only as discrete elements (joy, grief, etc.) without further definition or emotional-theoretical location in the schools of thought discussed in Chap. 2. They suggest, however, that these emotions be linked to the specific project as a whole or to individual elements, as certain emotions are often related to a specific event, e.g., a town hall or meeting. Such events can then trigger hope that a certain state can be achieved for the organization in the future. Hope can in turn mean joy about the future, and individuals will have the opportunity to form a positive vision of the change project.

Readiness on the team and organizational levels is generated by sharing cognitive beliefs, as seen above on the individual level, that change is necessary, the necessary capacities and skills are available, and a positive outcome can be achieved through change. Emotional readiness is generated by positive current- and future-oriented feelings, which are similar and directed. This process is created through identification with the team; i.e., both consensus on technical issues and the greatest possible agreement with the associated emotions must be established. Team emotions can arise from various factors, including

- Interdependencies in task processing,
- Social interdependencies between various roles,
- The frequency and continuity of personal contact,
- "Display rules" and emotional norms for interactions within the given organizational culture,
- Forms of emotion regulation,
- Team morale and performance standards, and
- Team climate and atmosphere.

If these factors are predominantly positive, then team members can cooperate better, experience a lower number of conflicts and perform better. These factors are also discussed at the level of the organization. However, organizational culture plays a special role. Every employee is subjected to a socialization process as soon as he or she takes on a task in an organization, which sometimes takes place very openly, frequently, and unconsciously. In this process, the individual acquires the social knowledge and corresponding skills to be able to successfully fill an organizational role in the company. The result then consists of a portfolio of new beliefs that are shared with all other members of the organization. Emotional reactions at the organizational level, on the other hand, depend on the leadership style of superiors and the shared emotions comparable to the situation at the team level. If managers manage to authentically embody a positive emotional attitude towards change, the probability that employees will also show a positive reaction to it is much higher. In Chap. 5, this connection is explained in more detail in the context of the presentation of instruments for emotion management.

The importance of this work lies in various aspects. The results of this study show that the management of emotions has not been sufficiently recognized as an

important factor in change projects. Although many managers have recognized that before and during a project, it is necessary to balance the emotional budget of the members of the organization, they have not sufficiently considered the chance to positively shape the course of the project and thus the outcome of this process. In particular, middle management, given their position as a link between top management and employees, as an enforcer of difficult positions, and as individuals who can provide support in solving complex problems, could gain a great deal from a conscious and responsible use of emotion management involving soliciting stronger support from their employees and more steadfastness from their superiors. Communication in all its forms is the key to success. In particular, integrating emotional elements into facts, arguments, and analyses can provide a promising direction forward.

It should also be emphasized that apart from individuals' willingness to change, team and organizational readiness must be given much more attention because even if a team member is highly motivated to tackle the tasks of the change project, a lack of willingness—or even unwillingness—among one's colleagues can counteract the entire project. Team-oriented interventions to improve emotional readiness should be limited in duration but regular so that negative changes such as the team turning towards a frustrated, lethargic mood can be recognized and addressed in a timely manner. Finally, it is worth examining the significance of low or high willingness for change in the organization. If such willingness is low, this does not necessarily mean that the whole project has a low probability of success because, as Gibbons (2019a) argues, resistance is also a form of commitment and can provide very good indications of where problems that were previously unknown or not recognized exist. Thus, a low level of willingness could indicate weaknesses in the organization, e.g., that in the past, the implementation of strategies did not work well and, based on this experience, employees are more likely to assume that a new project has a good chance of failing or of leading to suboptimal results. However, this provides diagnostic information that allows adjustments to and adaptations of the process. The application of this model then allows the identification of those cognitive or emotional components that should be further developed and adapted to ensure the success of the project.

One instrument is the SCARF model of Rock (2009) , in which emotion theories can be located in the cognitive and appraisal domains. SCARF stands for the following:

- S = Status refers to the social position that an individual believes to hold in relation to other employees
- C = Certainty, or security, stands for the belief that one's individual work environment is familiar and predictable.
- A = Autonomy stands for the ability to live and work in self-determined ways with the absence of unwanted restrictions.
- R = Relatedness stands for a feeling of social belonging.
- F = Fairness refers to the desire to be treated fairly in comparison to others and one's own personal expectations.

Each element can take on different forms, depending on the organizational culture and individual ideas. However, if these differ significantly from expectations, the reactions are usually negative. This difference is not unlikely in change projects because if, for example, the organizational structure is changed, the status of an individual may be jeopardized if the scope and importance of the tasks is reduced or a colleague is promoted even though he or she is perceived to not be a better candidate. This situation has to be recognized and managed, i.e., a concerned employee should always feel valued due to the contributions she makes in the project or in her daily life (Rock and Schwartz 2006). This is related to certainty, which disappears when processes are redesigned and performance parameters are reformulated. Fear of change paralyzes creative thinking, and the main task is now to increase confidence in performance. In this context, autonomy in task fulfillment may also be limited, be it due to stronger integration in automated standard processes or the different management styles of a new supervisor. The involvement of individuals in the change process is important for promoting self-efficacy and self-awareness. New organizational structures usually come with new colleagues, i.e., old ties dissolve, and new relationships have to be established, which is a long and complex process. Finally, it is important to ensure fair conditions so that the desire to be treated fairly in comparison with others and one's own personal expectations can be realized. Involvement in the change process allows this issue to be taken into account, as one's voice can be heard. It should always be kept in mind that everything that happens in a change process costs time, money, and energy, and if these investment decisions are made early and purposefully, this provides the greatest benefit for all. Participation, employee involvement and open communication generate more creativity, promote the implementation of complex projects, and minimize counterproductive behavior (Rock and Ringleb 2013). The alternative is, of course, traditional top-down processes that are conceived by a few and applied to many and are slow and expensive to implement. The outcome of such processes is uncertain, and their paths are fraught with incomplete information, conflicts and, often, selfish behavior (Schmitz 2018).

However, the SCARF model and other models assume that individuals and groups can reflect their emotions, i.e., a cognitive engagement with what is felt and how. It is not surprising that emotions are also used as an excuse to, for example, legitimize aggressive behavior or temper tantrums. Often, the "emotional" school of thought, referring to the evolutionary theory of the existence of emotion, is used for this purpose; i.e., it is argued that everyone is at the mercy of their emotions and is, so to speak, powerless against them. This school of thought is widespread and generally accepted, and feelings can very well be used as an excuse to allow oneself to do things that one should not actually allow oneself to do. Berner (2020) summarizes it neatly when he writes

> For example, if a boss yells at an employee and gives him a hard time, he can talk his way out of it afterwards, because he knows that he himself is a very irascible person; he probably inherited this from his grandfather, but unfortunately, he is just like that and cannot escape from his own skin. And the long-standing employees fall for the trick and assist with it: Their

> boss is actually a good-hearted person; only when he gets angry, he doesn't know himself anymore: Afterwards he feels sorry for himself! What a circus, just to avoid having to take responsibility for his actions! What a gigantic fraud he makes of himself and others! If irascibility were indeed so uncontrollable, it would be quite astonishing that it is always directed against those who are weaker and never against those who are stronger, and strangely enough, not against people with whom one does not want to spoil things.

Aggression and violent tempers are instruments of power. The reference to the similar disposition of the grandfather is also not proof of an inherited trait but rather an indication of where the boss learned this behavior. Instead, the supervisor should ask himself: What did my grandfather achieve with this behavior? Was he successful with it? Anyone who, after such a tantrum, is concerned about the way he behaved while angry and what he achieved with that anger then develops a guilty conscience. Often the behavior is rationalized afterwards, i.e., it is explained why the tantrum was justified or necessary in this case. This destructive and aggressive way of managing arguments and conflict, which often manifests itself in rudeness in handling superiors and employees, must be countered. Hesse and Schrader (1994) stated that

> Whoever acts out of aggression without restraint in order to achieve or expand his power goals is (...) ill and makes others ill (Hesse and Schrader 1994, p. 51ff.).

Frequently, frustration generates aggression, i.e., the nonfulfillment of expectations, needs, and wishes makes individuals aggressive. In other words, when a superior runs out of arguments in a meeting, aggressive behavior is used to achieve the goals. Conflicts trigger aggression, i.e., when one cannot come up with the proper words, one may shout at, threaten, and intimidate others. However, if a superior wants to take responsibility for his life and those of his colleagues and employees, and thus for his actions, he can consider his emotions that manifest in the form of aggression as a learning and development task. Aggressive behavior causes damage, and an appropriate learning task would be, for example, to understand which thoughts and evaluations precede such aggression, that is, what the prelude to violent anger is; then, he can evaluate how appropriate and goal-oriented these thoughts are and finally, think about how this process can be turned into a positive one.

4.3 Emotions in the Change Process: The Model of Doppler and Voigt

Doppler and Voigt (2018) published a book titled "Feel the Change!", which is one of the few books that explicitly conceptualizes emotion and change. They draw on decades of knowledge and experience in change management, and they recognize the importance of emotions in change processes at a very early stage and translate them into practical concepts. Nonetheless, change management as a concept and process is also constantly changing, and new ideas and approaches appear in theory

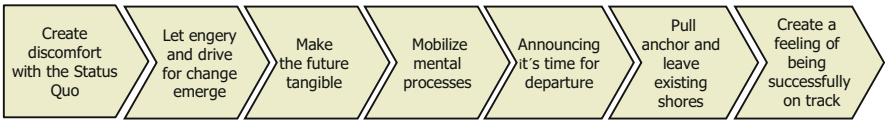

Fig. 4.2 The change process according to Doppler and Voigt (2018)

and as applied knowledge in numerous projects in companies and the public sector. Therefore, the following explanations should be seen less as criticism than as a supplement and extension of Doppler and Voigt's ideas.

They present a master plan for social architecture, which is divided into three stages. Stage A deals with the exploration of the initial situation. Stage B, the main part of their model, comprises seven stages of emotional control and is shown in Fig. 4.2. Stage C describes how people can be kept motivated once the actual implementation of the change is complete. The goal behind this is to achieve a balance between factual logic and emotion in change processes.

Stage A, the exploration of the initial situation, includes the usual analyses of the general environment, e.g., competitors, market conditions, and political framework conditions, as well as investigations of the internal conditions of the organization under consideration.

Stage B, the main part of the model, comprises seven levels of emotional control and is shown in Fig. 4.2. The first stage of the process involves creating discomfort with the current situation of the organization.

The theoretical foundation refers to systems theory, which assumes that all systems—including social systems—strive for a stable equilibrium and that all efforts to unbalance the system must be defeated. Another assumption of the authors relates to people's attitudes. They name here two opposing outcomes that are primarily based on employee satisfaction: Employees are either dissatisfied, which then manifests as anger, resignation or even a refusal to perform duties, or maximally satisfied, which results in a feeling of satiety and inertia without even a hint of desire for change. In this evocative description, they succeed in depicting strongly opposing outcomes. However, this is to the practitioner's disadvantage because much of what happens in the gray areas between these poles is lost. For Doppler and Voight, willingness to change is always related to a basic motivation, e.g., hunger, greed or lust. This emotional approach is congruent with their motivational approach of emotion theory. It is about survival and securing one's existence. Securing competitiveness can often fulfill this criterion, but just as often, it cannot, and the idea of the "burning platform" for change does not motivate everyone. Especially with younger Millennials, who have many options in the job market, this approach can be rather unsuccessful—they will simply look for a new job. Additionally, emotions are not discussed or questioned any further here but are presumed to be emotions, so further measures are designed to bring employees—especially those who are dissatisfied—out of their rhythms, to irritate, unsettle or destabilize them in order to create a

willingness to change. The different aspects of intrinsic motivation are not mentioned, although many employees draw very personal motivations for their work precisely from these. The goal in this phase is to "unlock" people's willingness before discussing the new goals and content of changes on a factual basis. In these times of digitalization, this approach is somewhat questionable, as most people have been feeling the effects of digitalization for years. It is rather the subliminal fear of losing one's job that has a braking effect. Therefore, a modification of the approach to dealing with existing fears would be desirable because fear paralyzes thinking, especially if it is important for the project to be creative and innovative. The change readiness approach discussed above offers many starting points, including the cocreation approach and the red-green model, to deal with feelings in the initial phases of a project constructively and in an employee-oriented way.

In the second phase, the appropriate energy and desire for change should then arise. In keeping with humanistic psychology, dialogue with affected employees is given top priority in this phase. The managers responsible for the change must convince those following them to participate so that the changes can take place. This approach is leader-centric and divides the world into those who lead and those who follow. The rationale for action is therefore developed by top management, and organization members must now be convinced to implement the ideas. However, it remains an open question whether every manager knows how agile working principles can lead to, for example, the development of new AI software that, in turn, redefines the customer relationship and has numerous side effects and remote effects that are still unknown today. Even though there is critical discussion as soon as the goal is set, there is little room for deviation. It is fatal to blindly build on this, talking intensively and at length, as the desire for change will arise, but fundamental convictions will not be changed by such a process. It is more likely that those affected will become involved without much conviction and will lack real willingness.

Developing a vision of what the desired future looks like then follows in phase 3 to make the reasons for action visible so that a common understanding can quickly be generated. The creation of an expressive image, including the development of a brand, should help to make the goal and the path feel tangible to those involved. This is understood as individual control information, the perception of which should guide and raise hopes. However, Doppler and Voigt explain neither how this intrapsychic process takes place in the individual nor how this process should be established in teams or departments, although emotions in groups can have a great influence on the whole project.

This step is followed by mental mobilization, i.e., like an athlete about to compete in an important game, all employees should prepare themselves inwardly for the tasks ahead. The mental and emotional anchoring of the vision of the future is in the foreground, and the testing of planned measures for their suitability in practice. In other words, new mental models are created individually and, probably also in teams and departments, which should encourage everyone concerned to help make the ideas more concrete. The role that emotions play in this process is not explicitly described, although the interaction of cognition and emotion is a prominent

component here. It is also very common for evaluation processes to take place here, as described in appraisal theory, and it would certainly be interesting to examine these processes more closely in order to draw conclusions that are useful for refining emotional messages and ideas.

Phase 5 then begins. The starting signal is given, including a suitable description of the project to encourage positive feelings regarding the design of the changes. The plan for further progress must also be ready because when one starts running a race, one should know what one faces: a cross-country race on a mountain bike, open water that must be jumped, etc. In addition, it would be good to know whether there are also supply stations to provide intermediate stops where one can replenish one's energy and recognize that part of the work has been accomplished. Strength here is the driving emotion that proves one's preliminary achievements. However, as will be described in detail in the following chapter, it is relatively rare for a single emotion to carry so much weight in the process; it is more common for there to be a balance and coexistence of positive and negative emotions over the entire course of a project.

In phase 6, the penultimate stage, anchors are mentally raised, and old shores are departed. Finally, resistance become visible only now, when things have become serious, and Doppler and Voigt speak of a visible field of tension between hope and fear. The task of communicating about this field with the right mix of emotion and cognition falls to the marketing and communications department, thus making the leader-centric or top-down approach abundantly clear. In this phase, another department should develop an overall staging strategy so that all senses of the involved individuals are reached, and as a result, the joy of finally commencing the project can be felt. The involved members of the organization are thus supported and persuaded from all sides, managers convince them with facts, and professional communicators emotionally cope with realizing the changes. How, then, are self-confident Millennials cognitively convinced and emotionally influenced? The assumption—based on motivational emotion theory—that something can be triggered in a person from the outside simply does not hold water. A cocreation approach could be more promising, as this would leave it to the person concerned to decide how they want to celebrate and express their feelings. If this strategy does not work, at least managers have a justification for it, because they have done everything they can, and it is up to the employees whether the change succeeds or not.

The final phase, phase 7, comprises the task of conveying a feeling of success by communicating the accomplishments of previous efforts, including the solutions that have been developed for unforeseen problems, in order to make it clear that the necessary competence is there. This should strengthen the confidence of the committed employees and finally convince those who are hesitant that it is worthwhile to continue on the chosen path. Honesty in the presentation of results is a great asset because whitewashing a situation reduces the credibility of managers and demonstrates a lack of responsibility on the part of the management. Cooperation and organizational culture can be damaged, often to such an extent that the future operations of the company are unnecessarily burdened. Experiential knowledge and learning outcomes should be disclosed and communalized to give everyone the opportunity to participate in the process.

Stage C deals with the question of how to proceed after a change project is completed or whether it is possible to return to everyday life. Doppler and Voigt are of the opinion that in some projects, it makes sense to take a break and look back with pride on what has been achieved. Other projects, on the other hand, should be seen as only an intermediate step, with other projects to follow, so a return to familiar routines is not an option. In the age of digitalization, the latter is more common, since, as shown in Chap. 1, disruptive change, given its remarkable speed, is the predominant topic, and routine can probably exist only in certain industries or corporate functions.

In summary, it can be said that Doppler and Voigt present a pragmatic change process with a great deal of user know-how and real-life experience. However, the unnecessary restriction to only the motivational emotion theory prevents the further interpretation and development of the approach. Even the emphasis on top-down procedures based on Kotter, for example, seems to need updating in the age of digital leadership and agile change to avoid completely losing the ability to connect to agile concepts such as SAFe®. Additionally, a description of the effects of emotion in teams and how emotion establishes itself in groups would have been important aspects to include. However, it should be emphasized that the authors succeed in presenting a coherent change concept that conclusively illustrates the significance of emotions and is thus unique in form.

4.4 Emotions in the Change Process: The Gibbons Model

Gibbons (2019a) proposes a novel process—as shown in Fig. 4.3—to realize agile changes. This change process is underpinned by a cognitive-affective process that accompanies emotionality and rationality in the individual phases of change. In all phases, all structural levels should be involved; i.e., individual employees and managers, teams or groups, and the organizational unit under consideration, or the entire company itself, are relevant actors. The decisive criterion here is the aggregation of emotion at the team and organizational levels, since otherwise, no indications of group-dynamic processes can be obtained. Corresponding instruments are presented in Chap. 5 because all known instruments in this area take an individual approach, which unfortunately, neglects the individual if no simultaneous coaching measures are implemented. This certainly helps the individual, but in larger change projects with several hundred employees, it is impossible to use such instruments on a large scale (Fig. 4.3).

The change process itself starts with the step called “Empathize” and is based on the assumption that there is no ready-made recipe for upcoming changes but that the commitment and involvement of all members of the organization are required; i.e., there is no kick-off event at the beginning where the CEO gives a speech and explains to the employees that for various reasons, a change from A to B is now imminent and everyone has to participate, but rather the announcement that a change is coming and everyone is invited to contribute to the problem definition and clarification of the challenges.

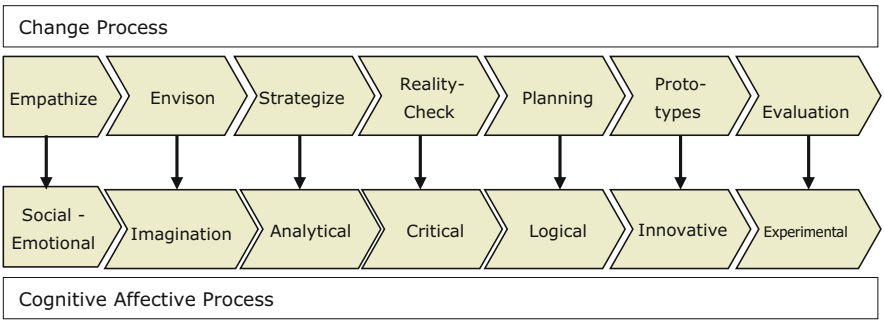

Fig. 4.3 Twenty-first-century change process based on Gibbons (2019a)

This includes clarifying why and how the change is occurring and defining the need for action. This procedure is guided by a clearly focused vision including goals, and all activities are carried out in a cocreation process. The diagnostic work and the communalization of the findings and emotions are thus in the foreground so that the structure, orientation, and focus of the change activities can be jointly determined. In this phase, the mood within the organization and the extent of the tasks to be accomplished are usually discussed. If employees lose their jobs or are transferred to another location or if new roles that have become necessary due to the digital transformation are defined, managers are particularly in the hotseat because they have to explain the plans and strategy to their teams. Coherence between feelings and rationality is important so that an authentic foundation can be laid, especially at the beginning. Instruments—see Chap. 5—that can be used are, e.g., the core affect model, which can describe the emotional situation in simple terms and is very well suited for this purpose, because everything can be considered on an organizational level and an emotional map of the entire company can be created. Thus, reservations, worries, and fears, as well as enthusiasm and a sense of excitement about change, can be addressed at an early stage without the participants fearing that they will lose face. Rather the opposite will happen, i.e., a positive mood can be created by allowing closeness and the construction of a common cognitive and emotional understanding.

This step is characterized by social, group-related emotions that need to be strengthened in a positive direction straight away. Individuals' identification with the organization is an important prerequisite for generating positive emotions and stabilizing them for the process ahead. This—and not concepts such as the "burning platform" or fear of doom—is the basis for developing a creative atmosphere that allows for innovative solutions and thus gives preference to the imagination. Only in the next step are the possible fields of action and solutions developed and then transferred into an analytical step for strategy formulation.

In this step, rational-critical thinking prevails, and ideas and strategy are tested for their feasibility in reality. The development of a communication plan in large projects is a key activity. Important input on the forms of communication comes, for example, from the results of the core affect model. If members of the organization are emotionally agitated and their emotions are rather negative, any message to the

employees should take this into account. If the attitude is more fatalistic or frustrated, then a mobilizing message is more appropriate, as such a message is more oriented towards the willingness to become involved. The continuation—see Chap. 5—of the cognitive-emotional assignment should also be ensured. Early detection of changes in the intensity of positive and negative emotions in relation to workshops, team meetings or town halls may indicate that the messages and behavior of managers do not correspond to the goals of the change project. Low participation or active resistance are possible reactions to the project.

Only after this stage is logical planning commenced. Contrary to traditional procedures, this activity depends not on the implementation of prototypes but rather on their development. This development can be done in the same way as in SAFe® or with the help of other creative methods. It is in this phase that the actual change takes place, i.e., that structures, processes, systems, roles, behaviors, and identities change. New business units are implemented by new managers and new or old teams. Fear and enthusiasm form a field of tension that needs to be managed. Openness and fault tolerance are important components in this phase. Again, it is important to keep track of the dynamic development of the emotional attitudes of all participants in order to avoid a change in direction that is unfavorable for the project at an early stage. This process step is very intensive in terms of task accomplishment and time requirements, so cognitive readiness and emotional resilience are essential. All involved individuals connect different emotions with different aspects of the change project simultaneously, simultaneously or sequentially. The same aspect that is frightening for one person may contain hope for another and sadness for a third. Therefore, individual reflection within the team is especially important to make the range of emotions visible and create a common emotional construct that is meaningful. Emotional team feedback can be directly linked to cognitive factors, and its effectiveness can be assessed. This can be achieved by continually examining the status of the matrix of cognition vs. that of emotion and identifying the effects of an intervention on the emotional situation of the team members. Software-based tools can support this process.

On the one hand, the privacy of the individual is protected, and people are not forced to admit their feelings in public when this model is used. By sharing information on one's overall state, individual classifications can be made, and the overall status of the team can be identified. This process can help reduce conflict and increase the level of participation, i.e., generate greater commitment and involvement. It can also help managers better assess their own emotions and those of their employees and interact with employees professionally. The process is not concluded by focusing on what is new in the organization but rather by adopting a continuous experimental and evaluative perspective so that solutions can be communalized and demonstrated in company-wide meetings such as town halls. This process also includes various reflections to gain new insights for concurrent or future projects. By evaluating the matrix emotional development as well as the core affect model, concrete recommendations for action can be derived. Here, it can also be determined how well feedback processes have worked, i.e., the dynamic development of emotions can be tracked and adequately reflected in the teams. Finally, it is asked

whether the effects of influential cognitive factors on emotional states have been examined and whether the responses to them have been appropriate.

These points can be included in the overall assessment of the success and benefits of a change project. Thus, a completely different picture of the course and current state of the project can be drawn, and the connections between the intervention and the emotional situation can be clearly recognized. In other words, the effect of the interventions on emotions and behavior becomes clear. Organizational learning aimed at establishing a positive cognitive and emotional attitude towards change will become possible. This learning becomes a great asset for future projects because embedding feelings in change processes creates a high level of trust in the process and the actors—thus, success becomes slightly more predictable.

4.5 Summary

As described above, the emotions involved in change projects have long been considered in one form or another. As early as 1948, studies were presented that focused on the emotions of workers during the introduction of new production methods. Change management concepts were further developed by Lewin, who presented the idea of planned change. From the 1970s onwards, however, this idea was replaced by emergent approaches that took dynamic environmental changes into account and established a new paradigm.

These developments were accompanied by the emergence of the concepts of change readiness and the creation of willingness to change as well as the introduction of more employee-oriented procedures. Such concepts were considered alongside traditional top-down approaches, i.e., change measures initiated by management or even replaced such approaches completely. At the beginning of the twenty-first century, agile change management, which takes into account systematic emotion management, marked the next stage of development. Against this background, the existing processes and models of change management were evaluated in this chapter.

The framework of Doppler and Voigt (2018), representatives of the "old" school of systemic organizational change, incorporates many traditional and pragmatic working approaches, but their emotional-theoretical foundation is insufficient to be successful in these times of digital transformation.

Gibbon's (2019a) conceptualization much more aptly takes into account the importance of institutional learning in organizations in driving the innovative process of digitalization. The change process itself is underpinned by a cognitive-affective process that accompanies emotionality and rationality in the individual phases of change. All structural levels of an organization, e.g., individual employees and managers, teams or groups, the main organizational unit and the entire company itself, should be involved in all phases of the change process. Gibbon's approach is based on the core idea of neo-behaviorism in changing behavior and meets the requirements of modern change management. His model is complemented by a change leadership framework, which provides an orientation for managers and includes aspects of change strategy and tactics.

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Concepts and Instruments for Dealing with Emotions

5

5.1 Overview of Instruments for Behavioral Change

Each change management process model is divided into different phases. Often, the first phase involves the formulation of a vision and the desired future state of the organization. Fields of action are then determined, and designated teams begin to work on them. Finally, the results are evaluated for their effectiveness, and individual topics are fine-tuned if necessary. Because change projects are handled in this or a similar way in practice, the presentation of the concepts and instruments used for dealing with emotions should not refer to a specific change process; instead, the presentation of the concepts should be a guideline that can be used independently of the chosen approach. Every change project has different goals, and sometimes, processes have to be redefined or adapted, structures urgently have to be streamlined and made more agile, or entire departments or corporate functions have to be realigned differently. New managers take over new departments or processes, vertical function silos are converted to horizontal cross-sectional processes, and all members of the organization start their new tasks highly motivated. The approaches presented here come primarily from the analog world, but due to their less complex characteristics, they are fairly easy to digitize for use as apps or websites, depending on the area of application and the desired scaling effects.

In the literature, there are a vast number of books and technical essays that provide information on appropriate and up-to-date instruments. The coaching literature in particular has taken up the topic of emotion as a guide for individuals. There are good reasons why the pressure, speed, availability, and performance expectations of individuals have increased significantly in recent years, and not everyone can deal with these long-term changes in their careers without notable physical or psychological suffering. Since teamwork is essential in these times of digitalization, both individuals and groups should better understand of the emotional mechanisms of action. If managers are convinced that something needs to change in the organization and that observable behavior is the main focus, then it is appropriate to focus on the positive and negative effects of emotion. Not only do the mind and rationality

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control change but feeling and intuition do as well. Eidenschink (2020) outlines this field of tension between hard and soft factors as follows:

> One of the most powerful myths of our culture is that behavior and decisions are determined and controlled by rationality, cognition, thought, and reason. Everyone knows firsthand that this is nonsense. Everything that is avoided out of fear, is pursued out of greed and jealousy, is prevented out of guilt, is forbidden out of fear, is persecuted out of anger and rage, is endured out of love, is denied out of shame, is believed out of insecurity, is endured out of pride, is rejected out of inferiority, is focused out of vanity, is delayed out of caution, is rejected out of offense, is aspired to out of enthusiasm, is done well out of joy, is exaggerated out of passion, is enjoyed out of lust, etc. (...) Whoever talks about feelings but feels and experiences none, can talk about fears for 20 years without these fears changing.

Therefore, some instruments and concepts that enable a meaningful and professional handling of emotion in a change context are presented below.

5.2 To Begin with: Storytelling and Strategic Narratives

In Sect. 2.6, the meaning of "storytelling" for children from approximately 6 years of age is explained, providing an important understanding of how the memory of emotions can be improved and emotional triggers can be explained. Language is therefore a fundamental prerequisite for dealing with ourselves, other individuals, and groups, and thus also with our emotions, appropriately because language, including grammar and vocabulary, influences our thinking. Thus, those with a large vocabulary are better able to express differentiated facts and ideas to other humans and themselves; this means that a larger field of action is available to them, and they can avoid the oversimplification of complex connections. This is an important function for understanding the behavior and motives of oneself and others and for behavior regulation. Parallel to this, an understanding of real and false emotions also develops, i.e., one learns that the emotions that are expressed do not necessarily correspond to true feelings. The foundations for change management projects are therefore laid in childhood!

Especially in the era of rapid digitalization and with the advent of the emotion economy, many people find it difficult to formulate new ideas or visions for using new technologies. Instead, they think of incremental developments for existing technologies, which may be an improvement of existing products or services, but chances for innovation or disruptions are not presented. Furr et al. (2018) report similar experiences. For example, methods such as design thinking support the creative process in developing specific product features, and rapid prototyping supports the rapid development of market-ready software. Today, there are many different ways to tell stories that illuminate the future. Different formats from different genres can be used; for example, texts from science fiction, novels or even fables can be useful. Additionally, pictures and graphic novels should be mentioned. The goal of such tasks is to find a source of inspiration for creating a

strategic narrative that shows the development of the organization and thus what its future holds.

5.2.1 Science Fiction

Furr et al. (2018) even go so far as to propose the engagement of writers from the science fiction genre to develop a story for the organization that can enable new approaches and open up new horizons. This is intended to reduce bias and limitations in thinking, as many individuals tend to look for information that confirms their existing thinking. Additionally, often, only current information is used, not information from further away in time. The cocreation process in the context of a change initiative can develop its own dynamics if creative methods are also used. For example, jointly developing a briefing for a writer could be the first step in switching from a meeting and workshop mode to an activation and action mode. However, the point is not for participants to tell each other anecdotes from their professional and organizational experience but instead for them to develop a story with characters and a plot, conflict, and solution. Furr et al. (2018) are convinced that science fiction can have a particularly inspiring effect because everyone must use their imagination to describe something that lies in the future. Moreover, science fiction always considers the human side of technology use and the frequent associated debate about the positive and negative sides of technology. Consequently, human problems, and even solutions, related to the corresponding technology are more likely to be revealed so that a basic optimistic attitude can develop. Thus, the emotions linked to the topic can be made visible and discussed at an early stage. Furr et al. also call this speculative organizational fiction, which enables future-oriented thinking. The steps in this process should be followed in a logical order to derive the greatest possible benefit from this idea. Current organizational data form the basis for assisted thinking about the future by professional writers. To this end, these data and information must be curated, i.e., the source material comes from customer and technology data from

- Completed projects
- Qualitative or quantitative studies
- Trend reports from external consultants
- Reports on or interviews about customer satisfaction
- Documents on failed internal projects, e.g., the introduction of new apps or software packages

The next step is to conduct stakeholder interviews, e.g., with internal experts, managers, or other opinion leaders, to determine needs and to be inspired by their ideas. Finally, multiple writers should be asked to write a short story based on this information. If, for example, five writers have each developed a story, the similarities between the different stories should be worked out to obtain a final unified story. It is

important to analyze the key scenes and themes and prioritize them in terms of meaning and fit.

However, this procedure also has disadvantages. On the one hand, it takes a relatively long time to search for and engage multiple writers, prepare the briefing, negotiate contracts, and sift through and condense the written story. This process can easily take 4–6 months. An obvious way to obtain an inspiring picture of the future is, of course, to read novels or fictional plays or experience them in the theater. Here, there are rich opportunities, and working with literature connoisseurs can also be a very fruitful idea. Novels provide insights from different perspectives that are not normally generated by employees. Certainly, one should not always expect high literary art like Orwell's book "1984," but this process is sufficient to obtain an idea of the side effects and long-distance effects that digital technologies can have.

In his book "The Circle," for example, Dave Eggers (2015) creates a world of total communication and transparency. Everything one does and thinks is shared on social media. Nothing is secret anymore. We are already experiencing a subtle new digital totalitarianism. Another example is "QualityLand" by Marc-Uwe Kling (2017), in which Kling describes a cyber-dystopia where there are self-propelled cars, delivery drones, and a catchy mechanical tune that forces people to think in certain ways; this world is as user-friendly as possible, and work, leisure and relationships are optimized by algorithms. Machines seem increasingly human and human mechanical. A little older but still relevant is "Super Sad True Love Story" by Gary Shteyngart (2011). This novel is not necessarily a positive story either because despite humanity's technological advances (everyone has a kind of cell phone that records not only social security numbers and account balances but also heart rates and immoral thoughts), the USA is eternally in debt to the Chinese, controlled by Big Brother, eaten up by superficiality, and facing a civil war. The influence of China has already been described in Chap. 1 of this book. Shteyngart took up this theme 10 years ago and put it into an everyday context. Further literature includes Jonathan Franzen's (2015) book "Purity," which describes how a worldwide active hack group functions. Franzen's thesis is that the Internet is the new GDR (DDR) and that a whistleblower is a threat to the free world. This is a very heavy but necessary idea. In addition to books, there are other entertaining alternatives. It is very important not only to read about studies and research reports but also to obtain an idea of how new digital technology can appear in people's lives.

However, it is also useful to search for analogies, i.e., to find ideas for solving a problem in a different way. In particular, successful or innovative organizations such as Tesla, Apple, and Google have done many things differently than others. Part of their efforts were born out of necessity, but they were still very successful. For an existing problem, the question can then be "How would Amazon or Tesla have solved it?" or in the negative form, "How would they not have done it?" or "How would a start-up tackle the issue?" Therefore, it is clear that there are many creative approaches to develop surprising and innovative solutions for future-oriented problems.

5.2.2 Strategic Narrative

If a fictional story is available, it must be transformed into a strategic narrative so that concrete steps for the organization can be derived (Kanter et al. 1992). The purpose of using multiple narratives or storytelling approaches in change management is therefore not only to make information about the process understandable to the people involved but also to reach them emotionally. People are often forgotten or lost in the change process. For example, new, often younger employees are hired or a "digital house" or "design lab" is established within the company, thus creating a new subculture within the existing culture. This not only causes uncertainty and an incomplete transformation of the corporate culture but also creates new conflict and friction among departments and teams. A strategic narrative is characterized by the linking of information and emotions, as storytelling captures employees' attention long term and allows information to be firmly grasped by individuals. Storytelling is the conscious and targeted use of stories and can be used in marketing, internal or external communication, training and change processes. A strategic narrative should take on a mediating function and can include

- Communicating corporate values
- Making the vision of the company understandable
- Making conflicts visually perceptible
- Revealing possible solutions

It is precisely the combination of facts and feelings that makes a narrative, which is a longstanding cultural technique that has been around since before the invention of printing press and written language, attractive. The sharing of experiences, events, traditions, ideas, and visions is the basis of all human communication; it is through such sharing that knowledge, history, and the rules of social cohesion—such as religion, morals, and laws—are conveyed, made tangible and, thus, passed on. Telling stories means placing the needs of the listener in the foreground. Telling stories about oneself as a person or one's company allows listeners a look behind the scenes. This creates closeness for employees and partners as well as for customers. Stories are thus part of the corporate culture and should be supported by factors such as authenticity, transparency, trust, and credibility. Company stories convey values, attitudes, and visions. They reveal where the company is headed and why the company, including all of its employees, partners, and associates, does what it does.

Effective stories can change beliefs and attitudes among the target group or move them to take certain actions (ten Have et al. 2018; Lauer 2014). They lend meaning to facts, put facts into context, arouse human curiosity, entertain, and boost attention. Stories help a company position itself in a credible and unique way.

Successful stories have the following basic elements:

- A clear hero (i.e., the figure, e.g., the customer or product, is identified)
- A clear message (a goal)

- A conflict or a challenge that the protagonist is attempting to overcome, and this should be at the center of the story
- Simplicity; a good story is simple enough that once it has been picked up by the audience, it can be adapted to each individual and told to others
- A foundation based on the needs of the audience (target group = the change stakeholders) and not on the ideas of the narrator

Narratives should always contain different elements: an emotional component ("What feelings are triggered by the story? "), a social element ("How will my status change within my team based on this change?"), and, of course, a functional element ("What is the purpose of the change?"). Thus, in the development of the story, not only the functionality of the possible solution but also the emotions associated with it should be described (Furr et al. 2018).

Wieskamp (2018) incorporates these elements in the form of a hero's journey. The basic principle of the hero's journey can be quickly summarized as follows: The protagonist leaves the familiar world and is guided by a mentor to face her fears and various dangers. After overcoming minor trials and difficulties, she is then ready to enter into a decisive battle and win. Often, the hero fights for higher values to save the world from evil (e.g., Harry Potter's fight against Lord Voldemort) or for her vision (goal) of a better life. To achieve the goal, heroes often develop superhuman powers; they cross borders and overcome obstacles and rise above themselves. In the process, the protagonist—in the case of change management, a "normal" employee—is transformed into a hero: she reaps fame and experience and receives a reward. In the end, the hero, changed by what she has experienced, returns to a world that has been changed (by her).

The narrative model of the hero's journey has proven useful in promoting strength, dissolving resistance, mastering innovations, and manifesting visions. That is why it can be applied so well to companies: In storytelling, the journey or the path from the previous world to a changed world is often referred to as a search. In this search, the focus is not only on the goal but also equally on the grueling and risky path of change. Important in this context is the description of the solution because it contains the vision for achieving the goal. The hero in these changes is a person who is part of an organization, be it an employee, a partner, or, eventually, a customer. The hero is a symbol for those people and organizations that have already gone through trials and changes (Wieskamp 2018). Furr et al. (2018) also emphasize the role of the hero because customers and employees alike love heroes who heroically solve problems or use new technology.

However, Furr et al. (2018) also point out that any narrative creates expectations for heroes, and these expectations must be reasonable. Certainly, ambitious goals are to be achieved, but when the project is launched, problems and obstacles will also unexpectedly arise that make the achievement of the goals appear unrealistic at first and thus, in the short term, may raise doubts about whether the change can succeed. Therefore, a list of flexible expectations that offers room for deviation should be formulated. Table 5.1 shows the different credible plots within narratives and possible expectations.

Table 5.1 Credibility and expectations in narratives following Furr et al. (2018)

Narrative contains...	Credibility	Expectations
Plot	Provides a lively and plausible vision of a possible future	Defines benefits, conditions, and the way to achieve the desired result
Connection	Establishes connections to larger persuasive ideas such as trends and analogies	Combines expectations with growth or an improved competitive position

The interaction and coordination of credibility and expectations is the greatest challenge and should be carefully managed. If expectations are too high, credibility can suffer; if expectations are too low, energy and momentum can be too low to even start the change project.

5.2.3 Change Story

The goals of a change story include the concretization of the story and the strategic narrative, i.e., the narrated story should now be supplemented with concrete justifications for action, such as a detailed clarification of the questions of what should be done and why, how, and when it should be carried out. In some cases, this must be done on a very large scale if several areas or departments in a large organization are affected. The disadvantage of this is that many employees will have to be involved and many different views will have to be dealt with, but the advantage of broad-based coordination and community or consensus-building within stakeholder groups outweighs the disadvantages. If everyone can become involved in cocreation processes, the likelihood of generating a high level of commitment also increases. In the design process, however, care should be taken to ensure that the status quo is acknowledged, that values such as the meaning and benefits of the project are discussed, and that orientation is provided through contextual activation during the change process. Wieskamp (2018) suggests to consider the subsequent questions at the beginning:

- Where do we come from, where are we today, what is good about it?
- Where do we want to go and what do we want to achieve?
- What is changing at the core?
- What is different from the past?
- What will remain of the structures, processes, systems, culture, behavior, etc.?
- Why do we want to go there?
- What is the purpose of change for us as a company?
- What is the purpose of change for me as a person?
- What is expected of me as a person in my role within the company?
- What emotions do I want to evoke?

The last point in particular should be critically considered because the evocation of emotions could be truly unknown and dangerous terrain. This is where the emotion intensity matrix can be used—see the following chapter—to address perceived emotions in groups or teams.

5.2.4 Brand and Image

The instruments of storytelling and change stories presented so far are indispensable for the success of a change project. However, the full story cannot always be told, so a shortened form must be developed to highlight the most important things in a concise way. Doppler and Voigt suggest finding a summarizing term like a brand. Product or service brands thrive on attributions such as quality, low price, or high utility. These attributions are often packaged in a claim or a slogan that is intended to clarify the brand's basic orientation. A brand should therefore represent not only an object or service but also a symbolic promise that is worthy of trust. A coherent image can also convey not only facts but also desirable emotions and clarify what successful positive change can make the future look like. The development of concepts and images should enable the individual to always have an orientation aid ready to identify and classify information and feelings quickly and reliably. To be highly effective, a picture must express a clear message and relate to current goals. In addition, emotional mobilization should take place, i.e., whoever looks at the picture should be positively emotionally engaged. When it comes to translating complex facts into simple pictures, difficulties arise. If, for example, it is not possible to agree on a single picture, this is a serious indication that a common strategy and vision supported by all may not even exist and it would therefore be sensible to look at the subject again before the strategy degenerates into a mere piece of paper or is implemented only in fragments.

5.2.5 Graphic Novel, Cartoons, and Comics

Another exciting way to communicate a strategic narrative and change story is, in addition to brands and images, a graphic novel or comic book. Fables can also be helpful at the beginning of a project to make a planned change feel tangible. Depending on the culture of an organization, it may make sense to produce a comic book or even fall back on a fable, depending on which aspects of the culture are most important to the members of the organization. A more conservative culture might favor a fable to be optimally informed about the upcoming changes, and a software development department employing many Millennials might prefer a graphic novel or a comic. Certainly, these forms are unconventional, but they can have an enormous effect in conveying messages and emotions. The possibility of presenting a change story or a strategic narrative from beginning to end, including the people involved and their emotional expression, is an option that is still far too infrequently used in change processes. As a supplement to the usual PowerPoint

Fig. 5.1 Illustration for reflection: sharpen your axe

presentations, glossy brochures, and videos, a comic is certainly a memorable way to generate attention. Furr et al. (2018) emphasize that comics are very adept at generating positive emotions. Harkening back to one's childhood, when many individuals likely read them, comics induce a pleasant feeling linked to the content of the comic in real time. Compared to those of classic formats of storytelling, memories of comics are reproduced much better over the course of time. In other words, the messages are better anchored and can be more easily reproduced in, e.g., conversation. Breaking through familiar routines is made easier, and more attention and awareness are directed to the actual content when comics are used.

However, before a comic arrives in the hands of the reader, some points should be clarified:

- In which format should the comic be produced? Black and white or color?
- How artistic should the comic be?
- What effect should the comic have? Should it be provocative or help readers visualize something?
- Which graphic designer should be hired?
- How many iterations and effect tests should be performed during the creation of the comic? What are the initial reactions among readers?
- What issues remain in terms of form, content, and feelings?

An example of a cartoon (Cook 2020) is shown in Fig. 5.1 which illustrates a typical problem in today's organizations: There is too much daily business and too little time for reflection.

This short form, which calls attention to a problem with humor, is very popular but is also limited in its application. In particular, if used too frequently, it can cause the seriousness of the problem to be eclipsed by the humorous content, and the delivery of the actual message—the importance of having time for reflection—is lost.

Furr et al. (2018) also emphasize, however, that a graphic novel or comic must never be a stand-alone artifact but must be understood as part of a process that begins with the cocreation of a vision and strategy, is translated into a strategic narrative and

change story, and only then moves on to the innovative form of a comic. The combined strength of the various tools, through their interdependencies and interactions in these processes, is what makes the endeavor successful, and no singular tool could do it alone. Therefore, explaining to those involved why and how this medium is used is important to avoid potential rejection from organizational members who do not necessarily like comics.

5.2.6 Tales

A fable can also be used to present the ideas and procedures in a change project. The best-known tale in this context is likely Spencer Johnson's book "The Mouse Strategy for Managers," published in the USA in 1998. By 2019, it had sold more than 28 million copies in various languages worldwide (Johnson 2000).

What makes the book so successful is that it tells a silly, almost banal story of two mice and two dwarves living in a labyrinth and feeding on cheese. The mice follow their instincts in their search, while the dwarves proceed strategically. One group will sometimes find more cheese and other times, will find less cheese. One day, all four of them come across a place where there is a large supply of cheese. The dwarves are happy with their find and slowly become less concerned each day. The mice are happy as well but stay prepared in case the supply runs out and they need new cheese. One day, the cheese is used up. The mice already knew that the supply was getting lower, so they had prepared for the inevitable situation. They do not hesitate for long and quickly start looking for new cheese. The dwarves, on the other hand, are completely surprised by the situation and decide to wait and hope—in vain—that new cheese will just appear by itself. Eventually, the dwarves also set out in search of new cheese and share their thoughts on their way through the labyrinth by writing on the walls. Their thoughts include:

- What would I do if I were not afraid?
- Smell the cheese more often, so that you notice when it becomes old
- Move in a new direction! This helps you to find cheese
- When you overcome your fears, you feel free
- When I imagine how it will be to enjoy new cheese, I am sure I will find it
- The faster you let go of old cheese, the faster you will find new cheese
- It is safer to search the labyrinth than to remain in a cheese less situation.

The goal of the parable or motivation story in fable form is to show both how changes can be successfully managed and the fact that there are different ways of dealing with problems. For example,

- Old beliefs do not lead to new cheese.
- If small changes are noticed in time, adaptation strategies for large upcoming changes can be developed.

Of course, the cheese in the story symbolizes life, and since life consists of changes that are not always desired and may happen suddenly, it is important to realize that you cannot stop these changes. The only possibility left is to change yourself, to let go of the old and become involved in new situations.

Therefore, the messages of the book can be summarized in a few phrases (Kacer 2015),

- Changes happen
- Anticipate change
- Be mindful of changes
- Adapt quickly to changes
- Change yourself
- Be happy about changes
- Be prepared to change quickly and be happy about it again and again

Jung (2002) sees this in a somewhat unique way because "to make sure that everyone really understands the story, Johnson has delivered the morality right along with it: One must not despair, but rather courageously always dare to try something new. He preaches; only then will one achieve one's wishes and goals, or, in Johnson's words: find the cheese, because whoever has cheese is happy".

Bianga and Blöcker (2019), on the other hand, suggest that tales are an emotional anchor. The goal of the tale they share is to show both that change is dependent on hard facts and that emotional anchoring is also necessary to make change successful. Several animals are involved in the mice's strategy in very different ways to ward off human threats. A cunning mouse named Matilda is the leader; she tries to draw the attention of the other animals to the current threat and to develop with the other animals possible courses of action for dealing with the threat. She wants to prepare the animals and dissolve any resistance so that they can continue to live together harmoniously. At the same time, those causing the problem of water pollution, the humans, are informed about their actions and eventually support the animals in resolving the issue.

The authors' story closely aligns with the typical process of a classic change project: analyzing the initial situation, convincing others of the urgency of the problem, forging a coalition of managers to develop a procedure for solving the problem together with others, and, finally, implementing the plan successfully and rejoicing in its success. However, the most important aspect of the fable that differs from real life is that emotions can be described without risk. Additionally, the bosses of the forest (lions and elephants) are allowed to show not only their courage, energy, and determination but also their emotions. There are many advantageous practical applications of this fable, e.g., not only should the discovery of a problem be approached rationally, but superficially obscured emotions must be considered. The success depends, however, on the detailed description and attribution of emotions to animals and/or individuals, which a fable can easily accomplish without having to directly describe a leader as, e.g., aggressive, or distant. This preserves the integrity of the persons involved and allows individual emotions to be dealt with in

an open manner. Overall, it can be said that fables are well suited to sensitize employees, managers, and other stakeholders to the emotionality of change in the run-up to a change project.

5.2.7 Classical Communication Formats

Schaff and Hojka (2018) see everyday business communication as an instrument for influencing emotions. They assume a top-down approach, which treats change as a cascading of measures from the highest hierarchical level to the individual workspace. In Chap. 1, the traditional change approach was discussed using the example of the Kotter change process, and it was explained which changes are necessary in the individual-level phases to become involved in an agile change model.

Agile change uses variants of a cocreation approach, i.e., from the beginning of a change project, all employees are involved in the formulation of the plan. This can succeed only if all managers at all levels use elements of self-organization and have a strong presence in the social networks available such as competence groups. This fosters ongoing, real-time dialogue that can be accompanied by short video messages and includes direct and immediate feedback on the measures currently being enacted. The focus is thus also on generating visibility, and classic instruments such as employee surveys are becoming obsolete or can be used only to a limited extent. If a cocreation approach is followed, the change "belongs" to the employees anyway, and they know exactly which action points have what relevance and priority and where the project is currently located. Personalization, blogs, chats, and the scaling of messages are the means of choice here. Every member of the organization who is not directly involved in the process can obtain information through the various channels at any time. This enables them to initially try out many things, e.g., by using Scrum, iterations, prototypes, and experiments, and then to start a pilot run through which operational experience can be gathered. Through this form of community from vision to pilot, intrinsic motivation is strengthened, and this, consequently, makes the sense and purpose of the organization, as well as the importance of one's own actions, clear. The development of values such as learning and cooperation within a defined ethical framework is furthered, and opportunities for personal development are improved. Due to the ongoing communication among all individuals, a quick exchange of information can take place about professional questions as well as respective emotional states (Harringer and Maier 2011).

So why do we still need classic forms of communication? Schaff and Hojka (2018) consider change communication to be one of the most important instruments for influencing the emotions of employees and managers, and they see it as providing support for change processes. It is an instrument that leadership can use to support change and target reinforcement of measures taken by a manager. Furthermore, Schaff and Hojka (2018) distinguish three levels of communication that influence actions: the informative level contains relevant information, the educational level gives the information meaning through explanations, and the

emotional level is decisive for identification with the content and motivation, among other things.

When designing communication, therefore, it is important to take the feelings of the affected employees into account. On the one hand, there is impact-oriented change communication, which concerns the abilities, competencies, and motivation of an employee and attempts to support these aspects in a targeted manner. The most important task is to prepare employees and managers for upcoming changes and to win their positive support. The second dimension of change communication describes phase-oriented communication that corresponds to the different stages of a change project and changes over time. The most important goal of change communication is to address people's emotions, which ultimately have a significant influence on motivation, commitment, and willingness to perform tasks. However, this design process raises questions. First, how and by whom are the people who have a great influence identified, and second, which emotions influence motivation and willingness to perform tasks? In the next few sections, it becomes very clear that very different emotions—positive as well as negative—can coexist over a long period of time and that determining how enthusiasm and frustration can be simultaneously addressed in a message is important. The emotional-theoretical basis on which a discrete emotion is attributed to the ability to motivate also remains unclear. If necessary, this form of communication can be used to convey messages to the external environment, including customers, partners, and suppliers, if it is not possible to determine the emotional situation of the recipients more precisely (Kaune and Kaune 2016).

However, internally, there are also useful approaches to using classic instruments because change communication naturally also takes place horizontally and informally, e.g., within affected parts of the organization or within the project team. Informal and emotionally shaped rituals and behaviors play an important role here. Successful communication planning therefore does not stop at the vertical communication axis but also considers horizontal, informal, and usually highly emotional change communication. In practice, many managers are skeptical about this: horizontal informal communication is difficult to plan and almost impossible to control. This often leads to an ambivalent feeling among managers towards this form of communication because managers are aware that this level of communication exists and is of great social importance. At the same time, there is often an attempt to exercise control over such communication through more or less rigid measures. This leads to the conclusion that an authentic and trustworthy dialogue is not possible or was not planned at all, which is understood as resistance from employees towards the change project. However, resistance can always be understood as the commitment of the organization's members, and managers may not have the opportunity to readjust the process and discuss content issues. This will be discussed further in the next chapter when the topic of willingness to change is presented.

Finally, Schaff and Hojka (2018) describe the positive example of the mail-order company Otto, which set up an internal social media platform for the company that not only provides factual information but also explicitly facilitates informal exchanges among employees. The company welcomes this exchange and limits

itself to drawing up social media guidelines, which, among other things, call for respectful interactions. Many large companies, including Tchibo and Vodafone, are now following a similar path. These measures are more likely to make communication in the era of digital transformation more targeted and able to meet the need of Millennials and other employees for appreciative, authentic, and trustworthy forms of communication.

5.3 The Core Affect Model

An indicator that is based on language and measures competence in terms of emotional expression can now be developed: emotional granularity (Barrett 2017). It has three characteristics. A high emotional granularity means that a person knows many different terms and thus emotional concepts. He or she can use these to achieve at least one goal but usually uses these to achieve several goals. The person can also call up hundreds of different concepts within a category, e.g., within the emotional concept of anger he or she is also familiar with rage, indignation, anger, wildness, rebellion, excitement, quarrelsomeness, aggression, choleric, agitation, and resistance and is therefore able to show an appropriate emotion in a very specific situation. A person with a medium emotional granularity in familiar with fewer concepts, perhaps a few dozen, and has a more limited range of expression.

Expressiveness is not present. The available concepts, however, enable the person to show adequate emotions in certain situations. A low granularity is observed when a person has only a few emotional words, and those are usually associated with a higher-level concept. For example, if the word "frustration" is used for all unpleasant emotions, then the context cannot usually be described in more detail. However, these concepts are critical inputs in experiencing and perceiving emotions and dealing with them accordingly.

If the indicator is combined with the measurement of a general perceived emotional status oriented along the dimension of "pleasant" and "unpleasant" feelings on the x-axis and that of "high" and "low" arousal on the y-axis, this results in a picture of the current emotional situation at the company for each individual and, in an aggregated state, for each team or even the entire organization (see Fig. 5.2). The distance from the center represents the intensity of the emotion. This can result in a negative combination, e.g., significant resentment, dislike, and anger, when high levels of excitement and strong unpleasant feelings are represented. Low levels of arousal are more likely to manifest in a form of lethargy, inactivity, and frustration (Russell 1980, 2003). A similar model, the "mood meter," was developed by the Yale Center for Emotional Intelligence. This meter is part of an app that queries the same parameters but can be used only on an individual basis; it includes the ability to share the results on, e.g., Facebook (Emotionally Intelligent Schools 2018).

In the context of disruptive transformations, it probably comes as no surprise that the future is unclear and uncertain; expectations for digitalization are high and no one truly knows how to plan for digitalization. That is why it is also important to form pictures of teams and the overall organization because this is where the mood

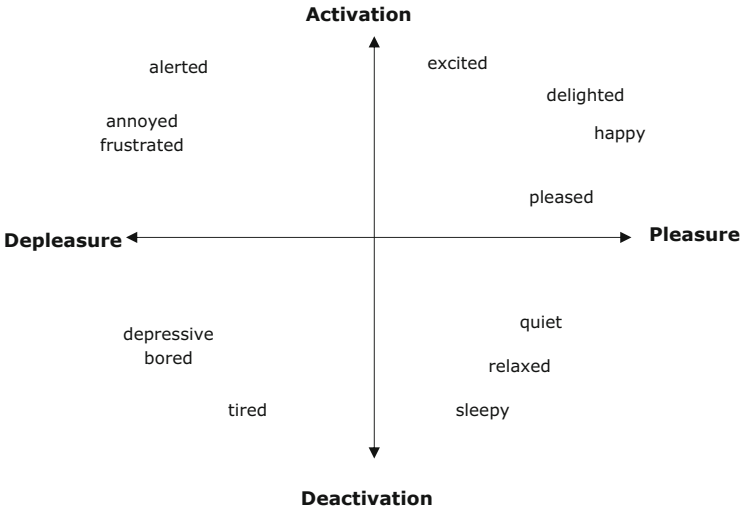

Fig. 5.2 The core affect model. Source: based on Russell (2003), author's own research

becomes visible to all members of the organization. Everything that is visible and has been expressed can be edited.

Exercise Core Affect

With this exercise you can train your ability to perceive your bodily reactions. It is best implemented by noting down several times a day whether you are feeling pleasant or unpleasant body impulses, e.g., changes in heart rate, trembling, and cramping in the abdomen, as well as strong or low arousal or activation and deactivation. Mark down your condition as shown in Fig. 5.2. Later, you can add a suitable description or word for each note. Over time, you will discover a pattern or structure that dynamically describes your emotional state.

This instrument is also suitable for use in teams, e.g., if you want to visualize and discuss your emotional change as a team before and after a meeting. This is always better than simply talking about the presence good/bad mood within the team, which often reflects the subjective opinion of only one individual. With this instrument, everyone has a say. ◀

5.4 Emotional Granularity

Emotional granularity is also known as "emotional complexity," "emotion differentiation," or "emodiversity"; the concept has garnered major research interest over the last 20 years. Since emotions are not firmly anchored in the brain but are based on the connection between physical impressions and experiences, it is possible to react

differently to different impressions or stimuli and to actively influence this reaction. The individual is, so to speak, master of her own emotions. The more precisely one can distinguish between different emotions, the more effectively one's potential reaction can be influenced.

This ability to concretely differentiate one's own emotions is called "emotional granularity." If someone asks, "How exactly do you feel?", people with low emotional differentiation, who identify only one with many different feelings, think, for example, "I feel bad." However, if an individual has high emotional differentiation, then he not only feels "bad" but also consciously differentiates between emotions such as sad and disappointed, angry and indignant, and impatient and desperate and can therefore better understand the current state of affairs and react accordingly. In fact, it is not easy to perceive in a truly differentiated way how exactly a person is feeling at any given moment—let alone to name the feeling exactly (Barrett 2017).

Kashdan et al. (2015) showed in one study that the ability to precisely perceive and distinguish complex emotional experiences is a key component of psychological interventions. They report, for example, that individuals who experience their emotions in a more differentiated way are less likely to resort to poorly adapted self-regulation strategies such as alcohol excesses, aggression, and self-harming behavior when under heavy stress, and such individuals show less severe anxiety and depressive disorders. These results clearly show how negative emotions and stressful experiences can be mitigated by the individual's ability to differentiate emotions. Emotional differentiation seems to be an important developmental process that probably starts—as described above—in a child's early developmental phase. The results of this research also suggest that interventions to improve emotional differentiation can both reduce psychological problems and increase various areas of well-being (Barrett 2017). The power of words—once understood and applied purposefully—is notable. Thus, the more precisely a person masters the process of naming emotions, the better he can communicate his actual emotional state to others. The other people thus have a significantly higher chance of reacting appropriately, and the benefits include less stress and greater well-being.

Exercise Emotional Granularity

This exercise is a good opportunity to practice dealing with emotional words. You can do this individually in the first step, but you can also compare and discuss the results later in your team alongside those of other colleagues so that you can reach a common understanding of team emotions. If you are even working in an international team with different nationalities, try to include emotion words in a common language such as English. First, write down the words that immediately come to your mind, such as fear, love, anger, excitement, joy, and frustration. Then, search for alternative words for each word.

When you have completed this step, describe/define each feeling for yourself and try to determine what meaning this feeling means to you. The following questions can stimulate your thinking.

- Which emotions make you feel more comfortable?
- Which emotions make you feel less comfortable?
- Which emotions are easy/difficult to master?
- Can you easily recognize these emotions in yourself and/or other people?

We need all feelings, both pleasant and unpleasant, because we have to consider them and use them to determine what we need. It is important to be aware of this.

If you have a hard time with this exercise, read novels and watch movies while paying attention to the emotion words used. Write down new words. This will help you expand your vocabulary of emotions, help you better understand and classify your own emotions, and give others more differentiated insight into your emotional world. ◄

5.5 COMO Model (Cognition Mapped to Emotion)

5.5.1 Introduction and Overview

In each of the change process models described above, there are a different number of phases through which a change initiative is carried out. Now, an exemplary condensed process with four phases is intended to illustrate the importance of emotions in such an initiative. Through an explorative-qualitative and empirical study, data regarding emotions in the change context were obtained (Kupiek 2016). The theoretical background for this study was based on systems theory and social constructivism, which, together with representatives of the processualism and culture excellence schools of thought—see Chap. 1—set the framework for the analysis. In the models presented above, it was found that conceptualizations of emotion, process orientation, and time have a significant impact on the course of a change project. For a better presentation and deeper understanding of this process, a number of following case studies, which originate from the field of change readiness or willingness to change, are presented to show the interrelationship of cognition and emotion over time.

TelcoTech was founded in 1983 in Berlin and was one of the first IT startups in Germany. TelcoTech provides products and service solutions for telecommunications companies, and business customers, serving several hundred customers worldwide. The founder was a professor of telecommunications at a Berlin university until 1988 and was named “High-Tech Manager of the Year” by a major business magazine in Germany in the 1990s. At the height of its success, TelcoTech had more than 1000 employees, but from the early 2000s on, a massive slowdown in sales and profit growth set in, and the business began experiencing a veritable slump. In 2013, TelcoTech had only approximately 100 employees, primarily in the software development and service departments.

To maintain liquidity and thus business operations, numerous issues could be dealt with only in crisis mode. In this situation, the primary concern was securing the existence of the company, and a change management project was set up to find a way to secure development and win new customers over together with employees. This case study describes the course of the project from the beginning, in 2013, to the end, in spring 2014. In addition to the generally difficult business situation of the company, the employees had no experience with previous change projects, so the development of a willingness to change was the focus in this study. The field study was based on the theoretical approach of Rafferty et al. (2013)—see also Sect. 4.2—who presented a multilayered, process-oriented model that takes into account both cognitive and emotional components.

The following research questions were addressed, among others:

- Which positive and/or negative emotions were perceived by the members of the organization during the project, and how intense were the emotions?
- Were emotions discrete, static or dynamic over time? If they changed, what were the reasons for this, and what effects did this have on the project?
- Did cognitive and emotional factors predict the success or failure of the project?

In the construct of change readiness, Rafferty et al. (2013) analyze which of the preceding factors lead to change readiness. Thus, in an early phase, elements are examined that will become relevant in later change projects. These elements are thus able to demonstrate the emergence of dynamic development capabilities at the organizational level. The three main categories of these prerequisite factors or antecedents are external pressure, internal context activators, and the personal and collective characteristics of individuals, teams, and groups.

The first category refers to the external pressures that trigger change, such as changes in industry, technology, and government regulations. As mentioned above, TelcoTech was facing an increasingly unfavorable and competitive environment. In the German-speaking region, the telecommunications industry had been experienced a consolidation phase for years, and this resulted in a smaller customer base. Customers were served in the network sector by large equipment manufacturers such as Nokia and Ericsson, which exerted great pressure on small manufacturers such as TelcoTech in terms of pricing, service, and the delivery of turnkey projects. Thus, the relevance of this category is clear. In addition, Rafferty et al. (2013) emphasized that this category can be observed not only at the organizational level but also at the team or individual level through membership in professional associations or other networks and can thus influence the willingness to change. The existence of such memberships could not be confirmed for TelcoTech.

The second category includes internal context activators, for example, participation in the change and communication process. Change processes to improve participation are associated with positive attitudes towards change, which, in this case, could be confirmed. Change workshops—described in detail below—can be characterized as very participatory due to their interactive workstyle. Each participant was encouraged to contribute to the discussion and the process of knowledge

generation. Communication was identified as a key element and was implemented in weekly team meetings where the current status of the action plan was discussed, as well as in personal one-on-one meetings with employees and other members of the organization. Excellent communication during the change process ensured acceptance of and commitment to the planned changes.

The third category of factors includes the analysis of personality traits at the individual level and group composition traits at the collective level. Examples of personality traits that have been studied are needs, values, self-efficacy, and individual personality traits such as positive self-image and risk tolerance.

Individual cognitive factors related to the willingness to change were examined with the help of a questionnaire that was presented to employees on the software and service team as well as to people from headquarters. The collective willingness to change was investigated by reflecting on the workshops through two team interviews with the service and software team and by conducting an ex-post analysis of the workshop documents.

As shown above, the cognitive willingness to change (Armenakis et al. 1993; Holt et al. 2007) is a multidimensional construct. Armenakis et al. (1993, p. 681) define this construct as an

> organizational member's beliefs, attitudes, and intentions regarding the extent to which changes are needed and the organization's capacity to successfully make those changes. Readiness is the cognitive precursor to the behavior of either resistance to, or support of, a change effort.

This construct is influenced by the conviction of the employees that

- There are legitimate reasons for the expected change (i.e., discrepancy)
- They are capable of implementing the proposed change (i.e., self-efficacy)
- The proposed change is appropriate for the organization (i.e., adequacy)
- The managers feel obliged to support the proposed change (i.e., management support)
- The change will be beneficial to the organization members (i.e., personal valence)

The personal and team interviews were based on the questionnaire developed by Holt et al. (2007).

5.5.2 Individual Factors of Cognitive Willingness to Change

Discrepancy (Between Today and the Future)
Each interviewee welcomed the fact that a change project had been initiated. The reasons for the change were considered plausible and legitimate. The outlook on the past was rather gloomy, as the daily work had been dominated by fixing software problems, and only 20% of the available time could be used for "real" SW development. To restore process efficiency, reduce the number of conflicts within and

between teams, and achieve better performance, the organization took the opportunity to shape the future. As one interviewee stated, "I was excited to start something new with a new goal so that fantasy could become reality." The workshop experience of the participants confirms this statement, and most individuals understood and accepted the need for prospective change. Given the poor financial situation of the entire unit at that time, it was clear that changes were overdue. Summing up this conviction, all members of the organization supported the necessary change, as it was based on solid reasoning and corresponded with their own perception of the actual situation. The prospect of a better future led to positive expectations, thus reducing uncertainty about early changes.

Self-Efficacy

The results of the interviews on self-efficacy show that all employees felt secure enough to take on new tasks. The optimism and euphoria at the beginning of the project created trust and self-affirmation, as for the first time, content and process were combined. Behavior and attitudes were the focus of attention and not just the strategy and implementation of concepts. As one interviewee noted, "Finally, something real happened. We were able to sit down and discuss not only new software features but also how we would like to work together." The skills needed for a different form of collaboration and the confidence to apply those skills were there. Although many were not particularly happy about the additional tasks that needed to be performed, no serious doubt was expressed that the necessary skills were not available.

However, as the results in the section on affective readiness reveal, something happened over time. It was not questioned which concrete skills are actually needed to bring about change in order to, for example, ask critical questions, but it was accepted that "we can do it." A critical reflection included, for example, a discourse on values and principles as well as corporate culture to understand the impact on self-efficacy. One service employee described the situation as follows: "the frequency of conflicts has decreased, but the climate in the team has remained the same and the problems have not yet been solved." Even the positively evaluated interventions, such as one-on-one interviews and coaching, did not prevent most individuals from seeing the change project as a failure, since behavioral and organizational inertia prevailed despite the employees' hard work and full commitment. As a result, a "reality shock" accompanied by increasing frustration, reluctance, and unwillingness to continue was observed.

Appropriateness

No negative arguments were put forward regarding appropriateness either. Since previous experience with change had been minimal, no real comparison with other approaches could be made. The majority of employees believed that the teams would benefit from the change initiative and eventually become more productive and customer oriented. The high level of participation was particularly evident in statements such as: "finally we can sit down and all talk to each other. No more top-down management." The approach, i.e., the workshop environment and personal

one-on-one meetings, was perceived as excellent methods and processes for doing things differently than in the past. Six months later, at the end of this phase, a third workshop was held, but this was considered less appropriate. On the one hand, it took place on site in the office; on the other hand, the integration of colleagues from different units (sales unit B) did not allow the participants to reflect on the past and to plan the next steps for the coming fiscal year. The service team stated that not enough happened between the workshops, and they were frustrated with the slow progress.

Senior Leadership Support (Management Support)
The support of management in the context of this change project, except for the department head who had initiated the entire project, was considered nonexistent. Although the COO addressed the need for change, he conveyed the attitude that day-to-day business was still the top priority and everything else was of secondary importance. Thus, "big plans" were presented but with very tight budgets and limited possibilities for realization. More communication was called for, and a discourse on plans was requested. Since the concerned unit did not exist in isolation but functioned internally via several interfaces with sales, order management, and other product units, an integrated discussion would have contributed to a positive cognitive and emotional attitude. This situation highlighted a low level of maturity in the organization, which can be seen as a result of a lack of change experience and support from top management. Two possible reasons for this behavior could be an unconscious fear of becoming involved in a process with which no one was familiar and a lack of willingness to truly reflect on the current situation of the organization. Problems could be traced back to both the suboptimal performance of the unit and inefficient sales, for example.

Personal Valence
At the beginning of the project, it was made clear that no financial benefits would be gained after the project was completed. The status of the team members was not subject to change, as the teams were very small and, for example, no new team leader position could be created. The scope of each role was extended to include new tasks by, for example, implementing RedGit, a SW version management and planning tool, which had to be adapted to the requirements of the development and service processes.

The real dilemma for everyone was the decision of whether to actively participate in the change activities to secure continued employment and thus, if necessary, to make their own work superfluous or to do nothing and simply wait the process out, which is a common and well-learned behavior from the past. The corporate culture and team climate probably contributed to this, as many employees have worked for TelcoTech for more than 20 years and have been exposed to cutbacks and layoffs in the past but did not feel compelled to change their personal situation. Passive behavior was explained by the feeling of being helpless and powerless, which is in sharp contrast to the results in the section on discrepancies.

In fact, it is noticeable that on the one hand, everyone was enthusiastic about the changes, but regarding really doing something, no one did much to involve

management in the responsibility for the change process. Therefore, the benefits of staying and persevering seemed to be greater than the benefits of looking for something new outside of TelcoTech.

In summary, it can be said that a different picture emerges on the individual level. On the one hand, the employees were convinced of the appropriateness of the change measures, which was a positive factor in motivating them to drive the change forward, but on the other hand, there was a lack of personal relevance to the employees based on experience. Much information was shared, but individuals' potential contributions were not or could not be appreciated in a form that would have triggered commitment and engagement. The next element was the investigation of the collective cognitive willingness to change, i.e., the willingness of teams or departments to support change.

5.5.3 Collective Factors of Cognitive Willingness to Change

Rafferty et al. (2013, p. 116) argue that

> that a work group's change readiness and an organization's change readiness attitude emerge from the cognitions and affects of individuals that become shared because of social interaction processes and that manifest as higher-level collective phenomena: work group and organizational readiness for change.

In other words, willingness to change is the result of rational beliefs that are shared throughout the group or department as being correct and is achieved based on the individual factors of cognitive willingness to change as described in the previous section. The organizational culture—see Chap. 3—in a TelcoTech department is thus expressed here.

To this end, two workshops were held, one at the beginning and one after 4 months, to provide a forum for discussion, an exchange of views and decision-making. The topics included content of the change, how should the department look in the future, which customers should be served with which services and products and how the optimal process would look in the future. One point of novelty for the entire department was that everyone could come and discuss these questions openly for the first time in years. Communicating future scenarios and building consensus on the most pressing problems was an important step towards drawing up an activity plan.

The first step of the workshop included a stakeholder analysis of the expectations of the respective stakeholders towards the company or department. From these results, a vision and several goals were derived. In summary, 19 internal and external stakeholders were identified, including shareholders, management, employees, customers, partners, and family members. In particular, the role of the founder and key stakeholders was hotly debated, as it was unclear whether the former wanted to continue to influence the day-to-day operations of the company or considered the company only as a financial investment, although he had announced some time

previously that his involvement would focus on the tasks of the board of directors regarding the financial performance of the company and not on operational activities. Based on their experience, many employees questioned this statement. Nevertheless, the members of the organization were able to formulate important goals, including

- Develop new, innovative SW products
- Increase the profitability of the department
- Create a positive working atmosphere
- Increase job satisfaction
- Thus, ensure job security

These goals were then used as the basis for shaping the future of the department by answering questions about the nature of the organizational structure, business processes, technologies, and systems that are worth striving for. After comparing their answers with the current state of these topics within the organization, the fields of action could then be determined and prioritized. This resulted in the development of an action plan as guidelines for implementation. The workshop and the agenda setting were particularly well received by the software team: "The workshop was great! [It is] an approach that enables us to shape the future of the unit. The personal communication and sociability were very good. It was a big change from the past. There is a new energy among the team." A kind of euphoria spread throughout the organization. The results of the affective readiness, which will be presented in the next section, confirm this statement, as overall, the highest values (approximately 7 points) for positive emotions (e.g., optimism) were noted in the first 2 months of the project. Cognition and emotions were positively balanced, and a common understanding of the importance of change efforts was achieved.

Immediately after the workshop, the most important team-oriented action points were implemented, including

- Individual discussions with the head of department
- Department meetings
- Cross-functional meetings with the presales, development, and service departments

These were implemented to help the organization openly discuss the progress of the project and adjust if unforeseen problems arose. Progress was also made in terms of the content involved in coordinating certain tasks, e.g., a joint agreement was made between the development and service teams on the procedure for the further development of the product portfolio, the establishment of a so-called end-of-life matrix, and the associated communication to customers that some components were to be discontinued. This consequently led to a new product roadmap, which showed priorities that had been set by both department teams. Conflicts were thus replaced by a consensus-oriented approach. Efficiency issues could also be addressed using development tools, and thus faster, higher-quality development could be realized.

Effectiveness and efficiency in service were also increased through a service process project.

After 3 months of successful implementation and the processing of individual activities from the fields of action, the picture changed. It became clear that the financial results for the first quarter had not turned out as planned; therefore, the plans that had been prepared for investments in new systems could not be implemented. Although the joint team meetings of software developers and service employees successfully continued, "reality shock" set in. This meant that not all measures associated with cash expenditures, such as purchasing market research reports to improve the understanding of competitive products and setting up a project to renew the database of the installed product base, could be implemented. This negative development—as described in detail in the next section—was also reflected in the emotions of team members.

For the first time, positive emotions scored less than 6 points, and negative emotions were recorded at close to 5 points. A second workshop was held in April, led by an external consultant. The aim was to review the action plan and analyze why current challenges, including time delays and low motivation, were becoming increasingly frequent and intense in the carrying out of the plan. Confrontational interventions were used to uncover the reluctance of the two teams to work together and to translate the findings into improved cooperation and adherence to the plan. A contradiction became apparent in that although all change initiatives were seen as positive, a sharp contrast between the expectations and the daily work routine in the office was noted: "The things that happened in the workshop were great, but the results could not be brought to life in daily work." The realization that the planned project could not be implemented led to frustration and reluctance to continue the project. Frustration also became the overarching theme within the software team, as they had to execute most action elements or review most of the results. Frustration and even anger became the predominant emotions in the time. In the service team, the spectrum of emotions was wider. They perceived the entire initiative as successful, as they were able to take advantage of numerous opportunities to develop their skills related to the service tasks, although they were also frustrated and disappointed with the failed implementation due to the lack of financial resources. They also called for change efforts from other departments to continue to pursue the goals they had set.

5.5.4 Summary: Individual and Collective Influencing Factors

In summary, an analysis of the individual and collective influencing factors reveals that it was possible to mobilize employee commitment in the short term. In addition to the project's financial constraints, however, the role of the founder, who was always present in the background, was decisive in the project being less successful than initially hoped. It became clear in various statements that only short-term success counted and that the actual causes of the constant decline of the sales, profitability, and liquidity figures were not being addressed. One reason for this

was certainly the role of the founder, who had, in the past, always compensated for the organization's losses, and this avoidance behavior had become deeply ingrained in the organizational culture. Far-reaching changes could therefore not be addressed, and the "business-as-usual" attitude continued without consequences.

As important as start-up and entrepreneurial thinking and acting are for consistently focusing on growth and market opportunities, it is also important to focus on rules, processes, and structures, as these are the only way to ensure the long-term existence of a company. Even the centralization of power in the hands of the founder as a supervisory board member and majority shareholder will at some point become a disadvantage if the contact with the market and the organization's customers and their requirements can no longer be optimally translated into products and services. In Table 5.2, the most important cognitive factors that occurred during the project are summarized. When these factors are considered in isolation, the result is the self-evident and completely familiar picture of a project that has been set up and implemented with a plan for the activities that will occur at each of the various organizational levels. Subsequently, the emotional factors are presented, and it is analyzed whether the visualization of emotions could have been useful as an indicator for an earlier assessment of success.

5.5.5 Individual Emotional Influencing Factors

In this case, study, the individual emotional factors were noted as discrete units that differ qualitatively from one another and can take on negative or positive characteristics. For example, love, hate, sadness, joy, grief, happiness, calmness, excitement, boredom, anger, disgust, and relaxation should be mentioned here. The role and importance of emotion in change management is undisputed by most authors and practitioners. Holt et al. (2007, p. 235) define willingness to change as:

> the extent to which an individual or individuals are cognitively and emotionally inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo.

In other words, willingness to change is the extent to which individuals and groups are cognitively and emotionally capable of accepting changes in the status quo of an organization. The emotions of TelcoTech employees were surveyed and then aggregated. They were asked to name the perceived emotion that best expresses their feelings this month considering the cognitive elements involved in the project. The participants reported that they found it very difficult to remember their emotions or to find an appropriate name for their feelings. It could be that their repertoire for emotional expression is very limited and lacks a sufficient vocabulary. Section 2.6.2.2 shows how important the ability to differentiate changes in the body and associate those with emotional concepts is in the context of emotional socialization. Table 5.3 shows the frequency of different positive emotions experienced by TelcoTech employees during the change project and their intensity expressed in minimum, maximum, and average values.

Table 5.2 Cognitive factors influencing willingness to change

Month	Nov	Dec	Jan	Feb	Mar	April	May
Organization	Announcement of new department manager	Change WS 1	Monitoring	Review action plan	Financial results disappointing	Change WS 2 reflection on financial resources	Acceptance of the project's end
Team SW	–	End-of-life matrix	SW roadmap	Introduction RedGit for planning	Joint SW and service meetings	Confrontation and conflict resolution meetings	Collaboration between SW and service is continued
Team Service	–	–		Concept service quality			
Individual	–	Introduction of one-on-one meetings	Continuation of one-on-one meetings	Individual coaching	Possible reality shock	Joint reality shock	Determining the project work

Source: Kupiek (2016)

Table 5.3 Positive emotions and perceived intensity according to Kupiek (2016)

No.	Frequency of being mentioned	Emotion	AVG[a]	Max. value	Min. value
1	2	Euphoria	6.4	9	4
2	5	A good humor	6.1	9	1
3	3	Happiness	5.7	8	1
4	**4**	**Optimism**	**5.7**	9	1
5	2	Openness	5.7	8	4
6	2	Hope	5.5	7	4
7	1	Positivity	5.3	5	5
8	**3**	**Curiousness**	**5.1**	6	4
9	1	Acceptance	4.4	4	4
10	1	Trust	4.4	4	4

[a]AVG is the average over the entire duration

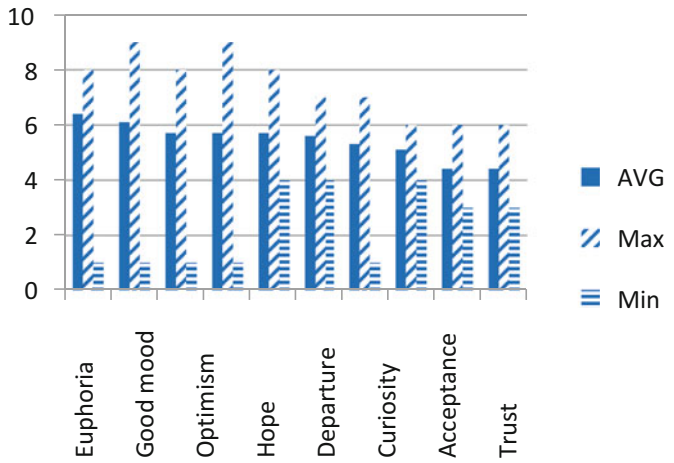

Fig. 5.3 Depicting discrete positive emotions in TelcoTech departments (Kupiek 2016)

Perceived Positive Emotions

A total of ten different discrete emotions were mentioned by the employees, with "good mood," "optimism," and "curiosity" being the most frequently mentioned. The intensity of the emotions was evaluated on a scale of 1–10, wherein 1 meant that only a very low intensity was experienced, and a value of 10 meant a very high intensity. The average intensity of all 10 emotions mentioned was 5.3 points with a maximum obtained value of 9 points and a minimum obtained value of 1 (Fig. 5.3).

A dynamic representation over the entire period of the project, as shown in Fig. 5.4, results in a differentiated image of the emotions experienced. The four most frequently experienced emotions, as determined by the highest average values,

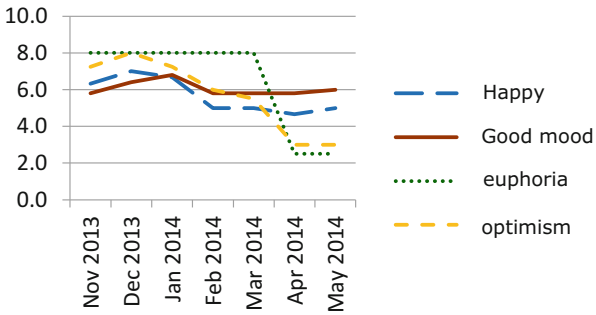

Fig. 5.4 Representation of the dynamic course of positive emotions in TelcoTech departments (Kupiek 2016)

Table 5.4 Negative emotions and perceived intensity based on Kupiek (2016)

No.	Frequency of being mentioned	Emotion	AVG[a]	Max. value	Min. value
1	1	Uncertainty	4.6	5	4
2	**9**	**Tension**	**4.2**	8	1
3	3	Nervousness	4.1	6	3
4	1	Trouble	3.9	9	1
5	2	Disappointment	3.7	10	1
6	1	Denial	3.7	4	3
7	**6**	**Frustration**	**3.4**	10	1
8	**5**	**Sadness**	**2.9**	8	1
9	1	Disillusionment	2.4	5	1
10	1	Fear	1.6	3	1

[a]AVG is the average over the entire duration

were euphoria, good humor, cheerfulness, and optimism; however, some of these fell very sharply relatively early after the start of the project.

The most stable emotion was "good humor"; according to one interviewee, "No matter how things went, I let my mood be spoiled." The average value for this emotion was approximately 6 points. In contrast, the values for optimism and euphoria values fell back to below 3 points after a peak of 8 points. Optimism in particular crumbled very early and steadily from the 3rd month of the project onward. From a cognitive point of view, it was not yet recognizable that the expectations had turned negative, but something must have been responsible for this negative turn.

Perceived Negative Emotions

A similar picture emerges for the perceived negative emotions. As shown in Table 5.4 discrete negative emotions were also mentioned.

On a scale of 1–10 points, the intensity of the emotions could be evaluated, where 1 meant that only a very low intensity, and 10 meant a very high intensity. The average intensity of all ten emotions mentioned was 3.5 points with a maximal value of 9 points and a minimal value of 1. The most frequently mentioned emotions were "tension," "frustration," and "sadness." This also clearly shows that the emotional lexicon of the participants showed very limited variation in a working context.

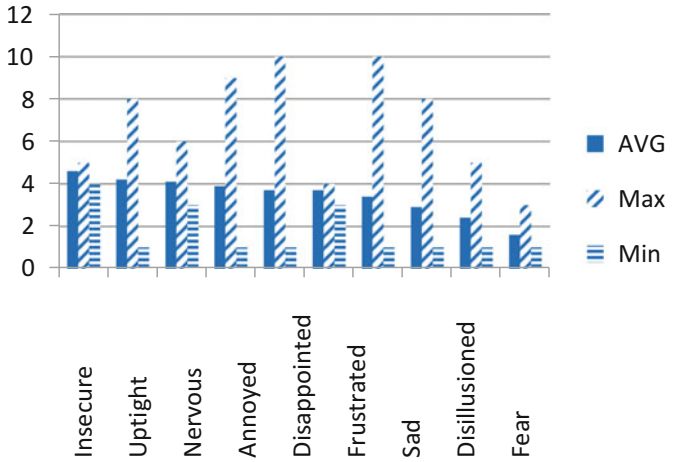

Fig. 5.5 Representation of discrete negative emotions in TelcoTech departments (Kupiek 2016)

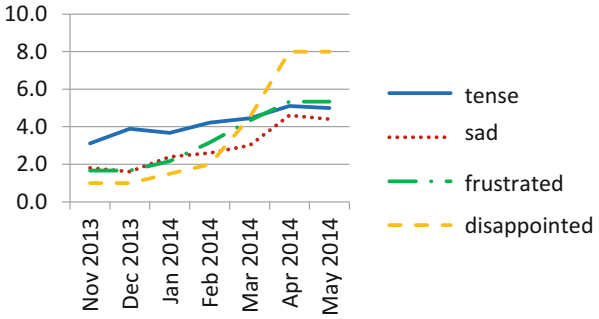

Fig. 5.6 Shows the average values of the dynamic course of negative emotions over the entire project period (Kupiek 2016)

Tension and frustration are fairly standard emotions mentioned when employees express their feelings. Although there was a deviation in the maximal value for "disappointed" and "annoyance," both were mentioned only 2 and 1 times, respectively. In the graphical representation in Fig. 5.5, this is even more obvious.

While "tension" seems to have been relatively stable throughout the project, with its value fluctuating between 3 and 5 points, the curve for "disappointment" rose to 2 in January and shot up to 8 points in April. The same pattern was true for "frustration," which was the second most frequently mentioned emotion and rose from 1.5 points to just under 5.5 points in April (Fig. 5.6).

Comparing the patterns of positive and negative emotions reveals some interesting insights. January was probably the month of greatest change, i.e., here, the values for negative emotions increased, and the values for positive emotions decreased. In February, the values for negative emotions increased, and those for positive

emotions did not fall until April. If cognitive factors are then added, it becomes clear that various interventions or measures seem to trigger a negative emotional tendency and weaken positive emotions. Although the reality shock did not occur until April, other issues had already changed the emotional situation over the preceding months.

5.5.6 Collective Emotional Influencing Factors

Next, collective emotional readiness was examined. Since all participants provided an assessment of their emotions over the course of the project and it was possible to trace the assessments of the service and software development department members, it is also possible to present emotional images participants had of themselves and others. Various information can be derived from the interviews. First, the overall emotional values of all persons who participated in the survey can be determined. For instance, the sum of the values of each emotion's intensity in each month was recorded and visualized in three curves, showing positive and negative emotions and the difference between positive and negative emotions. This is followed by a presentation of the team values from the SW and service teams and an assessment of how team members assess the emotional state of their own team and that of other teams. The emotional self-image of the SW team can thus be compared with the external image from the service team's perspective.

The aggregated values shown for all participants represent the average of the emotions perceived each month over the entire course of the project. Figure 5.7 shows that the positive emotions of the SW department decreased from their peak in January at 7.0 points to 4.9 and 5.2 points in April and May, respectively. Throughout the entire project, the emotional balance (=delta) increased each month until January, with a peak value of 3.1 points, then saw a continuous decline until April,

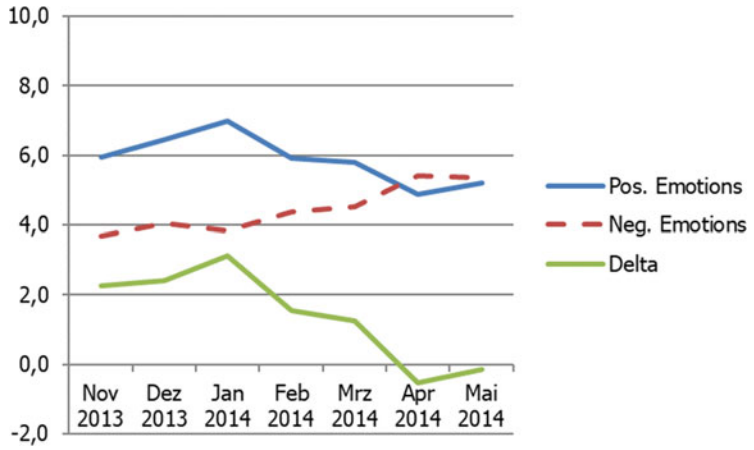

Fig. 5.7 Dynamic progression of positive and negative emotions in both departments (Kupiek 2016)

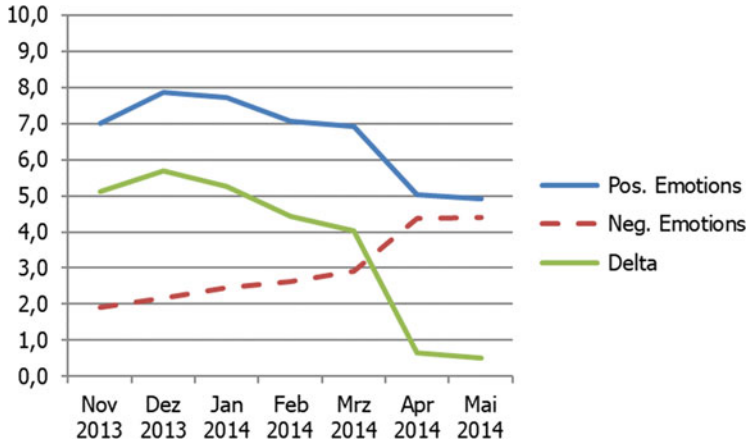

Fig. 5.8 Dynamic course of positive and negative emotions in the SW development department (Kupiek 2016)

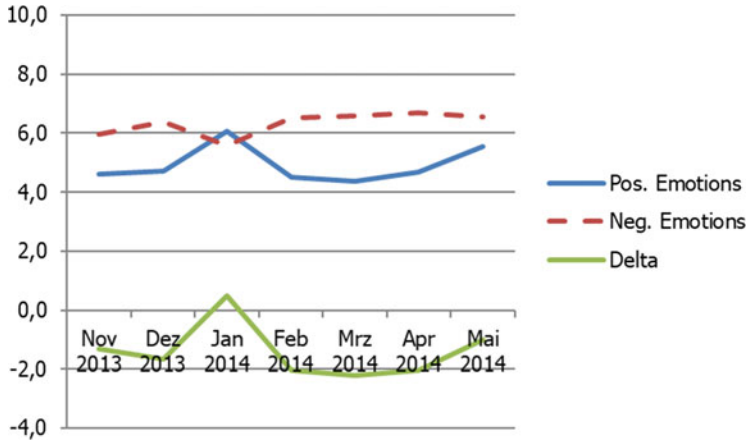

Fig. 5.9 Dynamic course of positive and negative emotions in the service department (Kupiek 2016)

when it reached its low point of –0.5 points, and then recovered slightly to –0.2 points in May. In April, negative emotions outweighed positive emotions.

Figures 5.8 and 5.9 show the respective values separately for the software development and service teams. Here, the first differentiation in the respective emotional experiences with the change project can be made.

This presentation is based on the results of the individual interviews, which were combined for this illustration and show a similar course of events to that of the department as a whole. It is remarkable, however, that despite the bad news in April, positive emotions predominated, and the delta also showed a positive value.

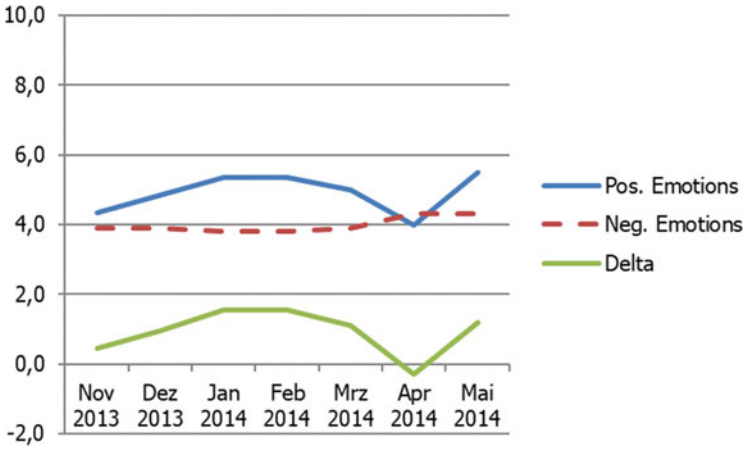

Fig. 5.10 Dynamic course of positive and negative emotions of the service team as assessed by the SW team (Kupiek 2016)

The assessment of the service team shows a completely different situation. Negative emotions were perceived to be much stronger than positive emotions. Only in 1 month—January—was the intensity of positive emotions (6.2) perceived to be greater than that of negative emotions (5.9), resulting in a positive difference of 0.3 points. The delta curve over the entire period also shows negative values in all months except January. The total difference adds up to a negative score of –0.6 points. On average, positive emotions scored almost 5 points, while negative emotions scored 6.3 points, and the overall emotional difference over the period remained negative in all months except for January.

Finally, a dataset was created that represents the emotional image of the service department from the point of view of the SW department. Here, the SW group was asked how they assessed the emotional situation of the service team. Figure 5.10 shows this evaluation.

The SW developers clearly overestimated the positive emotions of the service department, with an average of 4.9 points over time, 4.0 for the negative emotions over time, and a resulting positive balance of 0.9 points. For May, peak values were noted at 5.5 points for positive emotions and 4.3 points for negative emotions, leaving a positive balance of 0.9 points. The assessment of the emotions of an outside group revealed significant differences from the assessment within the group. The SW developers perceived positive emotions to be much more pronounced than they were in reality. It could be that the participants drew conclusions from their own personal assessments of the other group.

One reason for these differences between inter- and intragroup assessments may be the way the team works. SW development such as writing the code of a software package is an intellectually demanding task that requires full concentration over a long period of time. In contrast, most of the time, service team members are in contact with a customer, solving problems and interacting with them intensively.

Anger and happiness are shown immediately on site and are usually not suppressed, so all team members are immediately informed about the emotional state of each individual. Since the service team has worked together for more than 10 years, they have probably learned to recognize, understand, and accept the emotions of others and are able to easily assess the emotional state of their colleagues. Hope also plays an important role in team and interpersonal processes. Since their thinking is set and aligned with a desirable future state through the feeling of hope, these team members are also more likely to meet with other team members, and more information about their emotional states can thus be perceived, helping them feel emotionally aligned. This leads to more commitment and openness to change than in neutral teams. This can be confirmed by the results of this study. Although the service team showed a rather negative emotional balance, it also showed an open and committed approach to change.

5.5.7 Summary and Discussion

The presentation of the case study shows that the combination of cognitive and emotional elements reveals a completely new view of the course of change projects. In the past, the Kübler-Ross change curve has been used to illustrate the emotional highs and lows that a change project can bring to organizational members. However, this empirical finding shows that emotion is perceived very differently between individuals and on a collective level among teams and groups.

The conceptualizations of Rafferty et al. (2013) assumed that the willingness of an individual or team to undergo organizational change is influenced by current or future-oriented positive emotional responses to a particular change event. Stevens (2013) adds the process element to this view by considering recurring effects that occur over time in change projects. Thus, when new information or incidents that affect the change initiative are perceived by organization members, a new information processing cycle begins, accompanied by new emotional assessments. An automatic impulse and reflex, as represented by those adhering to the motivational school of thought such as Ekman or Goleman, is not present; instead, a mixture of feeling and appraisal theories are useful. On the one hand, changes in the body are perceived and judged in terms of their intensity; on the other hand, a cognitive assessment, i.e., how an individual reacts and how one group judges another, can also be observed.

In the initial phase, participants were exposed to intense mixed emotions, such as excitement and fear, that were anticipatory in nature. This was confirmed by this study, as positive emotions such as optimism, good mood, euphoria, and happiness were reported on a very high level between 6 and 8 points. Experiencing hope and optimism is related to the prospect of achieving a desired future state that promises, for example, a reward or another form of recognition (Rafferty et al. 2013). From this, it follows that hope triggers search behavior to find means that lead to the desired future state. Therefore, hope triggers a strong action orientation, accompanied by the feeling that the desired future state is truly attainable, and that

the individual has an influence on how the positive future state will be achieved. Compared to anger or fear, hope is a relatively weak trigger when there is great uncertainty about the course of the project. The more completely and concretely a future can be described and the closer one comes to the goal that has been set, the greater the hope is that this goal will be achieved. Hope, in this study, was the sixth strongest of the 10 named emotions, averaging 5.6 points in terms of intensity but occurring only twice in the sample. This could mean that this emotion was not considered critical to the outcome of the project. Other emotions, such as optimism, happiness, and curiosity, seem to have a stronger influence on the motivation to act.

In the early phase of the project, everyone was enthusiastic about the approach, which stressed greater process efficiency and fewer conflicts, not, for example, cost reduction measures, to achieve the overall goal of improved profitability. Holding the first workshop outside the office in a hotel was already seen as a kind of reward and increased the participants' motivation to actively shape the future of their own department. All relevant evaluations of positive emotions were higher than the average of 5 points. In particular, optimism and euphoria, which reached 8 out of 10 points, can be seen as the predominant emotions driving the motivation and commitment of the participants through the workshop.

In contrast, negative emotions were reported at a low level between 1 and 2 points only for sadness, frustration, and disappointment. Only the feeling of tension reached 3–4 points, but this was also due to the excitement of starting something new. One explanation for this finding could be the high level of insecurity felt by the participants, as a high level of emotional excitement can overwhelm an individual by restricting or even blocking thinking. One possible strategy for reducing uncertainty is to formulate expectations or predictions about the future by continuously generating new images or mental patterns to create certainty. However, the emotion curves clearly show the coexistence of negative and positive emotions over the entire period of the project, although the emotions of the overall group gained the upper hand and developed most strongly. In this study, the strongest emotions were disappointment and frustration, which explains the poor results of the entire process. No real change could be achieved. The commitment and creativity of the participants fizzled out, and consequently, their negative emotions determined the progress of the project. An appropriate intervention to regain positive emotions would have been to intensify communication not only about relevant facts but also about the mood and emotional state of the department. Stronger emotional involvement through, e.g., the clear naming of emotions, re-evaluations, and mindfulness exercises could have overridden the negative influence of the negative information. Furthermore, the design of a reward structure aimed at nonmonetary recognition such as status and autonomy through certain project tasks could have helped. Additionally, translating emotions into a new cognitive process, which makes the action internalized and routine, can change emotions.

There are many beneficial aspects of this case study. It made the interaction of cognition and emotion clear and showed that the introduction of new team-related activities is accompanied by positive emotions. A standardization of emotional curves does not seem to make sense since emotions refuse to follow a standard

course. Emotions are both very individual and also very collective and shared when working in teams. However, criticism is also warranted when measuring emotions. The results of the case study show that emotions occur in a variety of forms and intensities depending on the individual experience and personal background of a person. Even if one refers to the so-called basic emotions such as anger, fear, joy or sadness and classifies all other emotions into these categories, it is not possible to determine how many emotions are possible (Scherer 2005). The approach in this case study, for example, used a free format in which participants could name their emotions without prior specifications or a list to select from. This enabled the study to have an open process and explorative character. Physiological symptoms such as goose bumps, motor expressions such as smiling, action orientations such as referring to information, and the duration of perceived emotions were not considered. This led to an interpretation problem, as in some cases, it was not truly clear what nuances a given emotion had and what exact meaning a given emotion had for the participant. On the other hand, the results of the study show the wide range of emotions and numerous possibilities for interpretation with very different meanings. This reflects the complexity of emotion research and makes it clear that there are no comprehensive explanations possible for emotions of any kind but only partially plausible and logical theories.

Even Scherer (2005) himself admits that

> the definitions of emotions, distinguishing them from other affective states or traits, and measuring them in a comprehensive and meaningful way have been a constant challenge for emotion researchers in different disciplines of the social and behavioral sciences over a long period of time. (. . .) Definitions cannot be proven. They need to be consensually considered as useful by a research community in order to guide research, make research comparable across laboratories and disciplines, and allow some degree of cumulativeness, and they are quite central for the development of instruments and measurement operations—as well as for the communication of results and the discussion between scientists (Scherer 2005, p. 724).

The consideration of emotions in a change process now allows for improved control and implementation of such a project. The presented instrument for dynamically integrating cognition and emotion allows a synchronization of acting and feeling so that

- Communication to and among the participants of a change project can address an emotional state and help avoid typical problems inherent in too technical or too emotional communication.
- It can be determined which cognitive factors cause the strongest emotional impression in terms of fear, anger, frustration or hope, and trust.
- By tracking the development of emotions in teams and other organizational units, qualitative criteria become available in a condensed form that can serve as an early indicator of success or failure.

– The success of interventions can be assessed to determine whether measures such as team coaching or conflict management have had a positive influence on behavior.
– An evaluation of the entire process is possible.

Implicit knowledge about emotions is made explicitly available, thus establishing a new procedure that can sustainably improve the quality of agile change management projects. Especially against the background of the current highly emotionalized debates and the emotion economy, the proposed method is very useful and can, at least in the business environment, guide the way to a more conscious handling of emotions.

5.6 Mindfulness for Individuals and Teams

Meditation or mindfulness exercises are currently fashionable, and their positive effect is almost undisputed. Mindfulness promises to increase efficiency, satisfaction, and joy at work and in life. But what exactly does this buzzword mean? Mindfulness can be understood as the sum of self-regulating practices that aim to control mental or unconscious processes. This is done by focusing attention and awareness on the here and now. Practicing mindfulness enables the development and later habitualization of metacognitive processes that control mental experiences in everyday life (Gibbons 2019a, b). However, this is not a normal state of mind for most people. Many find themselves with their thoughts stuck in the past, dealing with worries or thinking about the future. This type of thinking is usually accompanied by the hope that at some point, a satisfied state will arise. A mindful person, on the other hand, pays attention to the moment but does not evaluate it—pointing to the second crucial aspect of mindfulness. Being mindful means not formulating evaluations but instead concentrating on what is just outside conscious thought. A simple mindfulness exercise is concentrating on one's breath, thereby creating distance from one's thoughts.

The concept of mindfulness comes from Buddhism, in which meditation plays a major role. Mindfulness is an attitude that underlies all meditations.

Thus, no meditation can be done without mindfulness, but one can be mindful without meditating. The molecular biologist Jon Kabat-Zinn is considered the father of modern mindfulness practice in Western cultures. Kabat-Zinn formerly taught at the University of Massachusetts and developed the medical mindfulness training known as MBSR (mindfulness-based stress reduction) towards the end of the 1970s; MBSR is a form of stress management through mindfulness. Kabat-Zinn is a committed student of Zen Buddhism. In creating his program, he focused primarily on yoga postures and elements of Buddhist Vipassana meditation, where one focuses on one's own breath. Kabat-Zinn's mindfulness practice does not require a philosophical-religious superstructure. His MBSR program has been well researched and scientifically evaluated. In addition to its use in everyday life, mindfulness

practice is also part of newer behavioral therapy methods and is already being used in clinics in the USA and Germany (Kuss 2020).

The application of this technique has many benefits, including

- Control of attention and concentration
- Increased awareness of one's current situation
- Cognitive flexibility
- Better competence in making decisions
- Stress reduction
- Development of metacognitive skills
- Increased self-confidence
- Positive health outlooks
- Optimism
- Emotion and impulse regulation

Especially in regard to the regulation of emotions and impulses, Saher (2020) reports that mindfulness seems to be an excellent method for influencing the emotional cycle from the highest state of arousal to a normal state. Shortening this recovery time from high emotional arousal to emotional stability and encouraging a sustainable balance improves one's ability to better cope with emotionally difficult situations in the future. In other words, mindfulness enables one to deal with emotions in a more relaxed manner and can lead to an improved and balanced handling of one's own emotions.

The most common mindfulness practice is meditation, and the most common form of meditation is as follows. Sit quietly and still. Observe your breath, an automatic, subtle process that requires intense concentration and can be done for any length of time. When your attention wanders, which happens relatively quickly in the beginning, especially for beginners and other untrained people, and past or future things are pushed into consciousness, the goal is to perceive this wandering but not to fight it. One's attention should be focused on the perception of breathing.

Mindfulness provides additional benefits. It supports the mastery of other skills in the same way that great endurance enables a runner to achieve a marathon time of less than four hours.

In other words, clear awareness and control help to change behavior.

The qualities that mark mindfulness are

- Patience
- Avoiding judgment
- Trust
- Avoiding force
- Acceptance
- Letting go
- Gratitude
- Compassion
- Generosity

Mindfulness exercises are also useful in the context of agile change. For this purpose, it makes sense for the organization to offer appropriate training so that a common mindset can develop, and everyone can speak the same language when sharing or reflecting on experiences. It should be noted, however, that mindfulness, meditation, or other contemplative practices can act like a magnifying glass, amplifying, and bringing to the outside world what is hidden in one's consciousness. However, the intensity of the experience can increase when it is shared. A further risk, from the organization's point of view, is that participants in mindfulness training are more likely to clearly recognize possible causes of their sadness, frustration, joy, happiness, or unhappiness and are then more willing to make life-changing decisions, such as leaving a partner or changing jobs. Employees may also decide to strive for a better work-life balance by reducing their work hours or separating their work and private lives more strictly than before. This could then lead to a change in attitude towards achieving personal goals in the workplace, i.e., some will no longer consider obtaining a special bonus or promotion as a top performer to be their ultimate goal. All one can do with a Porsche is drive it anyway.

Many large and, often, self-appointed learning or agile organizations now offer mindfulness seminars or lectures for employees. Mostly, however, mindfulness remains a guidance tool for individuals to implement as an aid for self-optimization. Implementation in a team or as a development perspective of an organization requires both know-how among management and the courage and conviction to fundamentally question entrenched performance processes. If the common rules of mindfulness are supported by all members of the organization, business performance and a high-performance individualistic culture can be renegotiated to accommodate other goals and values. Agile organizations are usually based on individual learning principles, for which there is unfortunately far too little time left in day-to-day business. Changes to individual limitations instead of team transformation leading from the careful use of human resources are unfortunately still a common practice. Thus, mindfulness in many companies often remains a sham instead of actual corporate care.

In addition, there are still organizational and legal concerns regarding the implementation of mindfulness training. Aspects of data protection should be examined; for example, it should be clarified in advance which types of measurements or data collection about or from employees are legally permitted.

Therefore, these issues must be considered before mindfulness practices are offered in an organization. Open information events, legal notices, and approvals for the protection of employee data can be used.

These remarks are not meant to suggests, however, that coworkers, high-level personnel, and executive committees should be kept from practicing mindfulness, just that the long-term potential of such practice should be considered; for example, coworkers who regularly engage in mindfulness exercises are better able to develop and maintain a healthy work-life balance, and thus, their work and life satisfaction may increase.

Exercise Mindfulness

If you are interested in trying an exercise on mindfulness, here are some suggestions. If you have no experience in the field, start slowly. It is possible to practice mindfulness in the morning on the way to the office, at work or in one's home office or in the evening. In the morning, for example, you can try drinking tea/coffee mindfully, just being aware of the experience, not doing anything on the side, and always returning to the present moment. Feel your lips against the cup, the tea tipping into your mouth, the sensation of swallowing the warm liquid. This type of practice is a completely new experience for many people.

Throughout the day, other mindfulness exercises can also be performed again and again. Concentrate on your breath and observe yourself. Let your thoughts come and go. Initially, 2 min are enough to become familiar with the method. After 2 weeks, you can increase your time to 5 min. Do not be too ambitious, as you can succeed only if you take your time. If the exercise is too strenuous, try again later or the next day. Do the exercises briefly and limitedly rather than compulsively.

If you know someone else who is interested in mindfulness, an exercise for two may be a good idea. Each person can meditate for 2–5 min and then tell the other how they felt. This even works digitally via telephone or video conferences. ◀

5.7 Artificial Intelligence (AI) and Emotion Recognition

5.7.1 AI from the Perspective of Business and Politics

As shown in Sect. 1.1, AI has long been part of everyday life. Sascha Lobo (2019) put it pointedly:

> The most important effect of Artificial Intelligence on work is not unemployment, but the intensification of old familiar effects of capitalism. We look at the horizon and anxiously look out for a coming tsunami, but we are already up to our hips in water. The constant reminder of the changes that may occur in ten or twenty years through AI prevents us from dealing with the problems of the present (Lobo 2019, p. 224).

AI and emotion recognition have already begun. Various projects have already been developed. Before examples of such projects are described, the topic of AI will be briefly outlined. The interaction of emotion and AI today will be illustrated on the following pages based on some basic remarks about AI from political and economic points of view.

Many publications deal with the topic of artificial intelligence (AI). AI is evaluated differently depending on the objective of the publication and is either hyped as a source of hope for the economy and society or discussed as a desperate

attempt by technology lovers to implant intelligence into machines. The Dartmouth Conference in the summer of 1956 is considered the birth of AI as an academic discipline. Since that time, there have been regular points where AI is seen as the hope of IT in particular and of humanity in general, alternating with phases of disillusionment. However, what is AI in actuality? The German Association for Information Technology, Telecommunications and New Media (BITKOM), for example, defines AI as

> Artificial intelligence is the property of an IT system to exhibit 'human-like', intelligent behavior. Artificial intelligence describes IT applications whose goal is to show intelligent behavior. For this purpose, certain core capabilities are required in different proportions: Perception, understanding, action and learning. These four core abilities represent the greatest possible simplification of a model for modern AI: Perception–understanding–action extend the basic principle of all computer systems: input–processing–output. The really new thing is learning and understanding. What today's 'real' AI systems have in common is that they are trained in the processing component and can thus learn and thus achieve better results than conventional methods, which are only based on rigid, clearly defined and firmly programmed rules. Today we speak of weak AI, which is about intelligently supporting humans in achieving their goals, i.e., smart human-machine interaction and collaboration (BITKOM 2017, p. 28).

Currently, AI systems try to combine learning methods with expert knowledge to take advantage of the best of both worlds, i.e., to combine control and explicit knowledge with the power of learning algorithms, which then act similarly to a human being even when the facts are uncertain. Classical IT systems work according to the simple principle of input–processing–output, and the truly new thing about AI is the addition of the ability to learn and understand new concepts. What today's AI systems all have in common is that they are trained on processing and can thus achieve good results, often better than those achieved through conventional methods, which are essentially based on rigid, clearly defined and firmly programmed sets of rules (if–then statements). The most obvious examples are speech, text, and image recognition. AI systems can not only recognize letters in an image perfectly but also know what the word "complaint" in a scanned letter means and can thus initiate a complaint-handling process (BITKOM 2017). The European Commission (2020) also promotes a positive image of AI. The current white paper on AI notes

> Artificial intelligence is developing rapidly. It will change our lives by improving health care (e.g., through more precise diagnostics and better prevention of diseases), increasing the efficiency of agriculture, contributing to climate protection and adaptation to climate change, increasing the efficiency of production plants through predictive maintenance, increasing the safety of Europeans and in many other ways that are currently not entirely predictable. At the same time, artificial intelligence (AI) poses a number of potential risks, for example due to opaque decision-making processes or discrimination based on gender or other factors, intrusion into our private lives or abuse for criminal purposes. (...) The Commission is determined to enable scientific breakthroughs, maintain the EU's technological leadership and ensure that new technologies are at the service of all Europeans—making improvements in everyday life while respecting citizens' rights (European Commission 2020, p. 1).

Both variants of AI thus promote the development and proliferation of AI in the broadest sense to ensure the prosperity of citizens and businesses in general. In terms of the economy, many business processes and corporate functions are already being supported by AI.

However, many AI applications are still buggy. Dworschak (2019), for example, reports on a neural network that was trained to recognize images and thought a mushroom was a pretzel. A stop sign, rotated by 90°, passed as a dumbbell, and in a photo of a sloth that was manipulated through barely visible details, the artificial intelligence recognized a racing car. The fact that fast cars do not like to hang around trees did not bother the AI. Such issues show that computers still lack human understanding. However, this extends beyond image recognition to include chat bots, household robots, self-propelled cars, and AI in clinical diagnostics, as these are still not suitable for everyday use because they are useless in the analog world. Marcus (2020) supports this assessment and criticizes the sometimes unsubstantiated hype about deep learning. In many articles, he has pointed out the limitations of the method; in his view, the benefits are sometimes negligently overestimated. Learning from massive amounts of data alone will never give a computer a usable mind, and good old-fashioned manual programming will probably still be needed for any successful AI project. BITKOM (2017) disagrees and uses numerous examples to show which functions and areas in organizations could use and benefit from AI. Here, an essentially positive picture is drawn, and as BITKOM is a representative of interest groups, this is a legitimate position. However, a decision regarding the use of AI should be made against the specific background of the specific company in question.

AI-supported emotion recognition is no exception to these issues. Surprisingly, the areas of application of such AI are already relatively broad, ranging from marketing and sales to human resources departments. Emotion recognition has so far been used mainly in call centers and to determine emotional reactions to advertising and products in stores. There is a large market for these applications. The AI technology used today determines emotions based on

- Voices
- Text
- Faces and facial expressions
- Postures and gestures

The business fields of application of such AI are also broad; application is not limited to private companies but can also be used in public administration, such as police forces and judiciary work. Some providers also envision using their AI tools in schools and the private sector. The algorithms used in this AI often do not analyze just a single element, such as voices, but combine signals such as voice, facial expression, and posture and create an emotional profile of the person in question. The uses of such a profile are manifold.

5.7.2 AI-Based Emotion Recognition of Faces and Voices

The voice and the face play an important role in marketing and sales. They are used to measure emotional reactions to advertising measures and to make a preselection for incoming calls in a call center. For example, emotional callers who want to complain or have problems using products and services should be automatically routed to specially trained employees who are especially skilled in dealing with highly excited customers. Kuksov (2019), for example, reports on an AI application used by the Dubai Road and Transport Authority, in which cameras equipped with AI compare people's feelings when entering and leaving the building to determine how satisfied they are. If the calculated score falls below a certain level, the system advises the center's staff to take action to improve service quality. The photos of the visitors are not stored for privacy reasons. Below is a more detailed discussion of the problems with combined face and voice recognition, as many approaches are not yet fully developed.

The recognition of the feelings of people in cars is currently another important research area for emotion analysis. The automotive industry already has experience with the preliminary stages of development for this technology. Since 2014, some cars have been equipped with fatigue detectors. Volkswagen, for example, developed a system early on that could detect changes in driving behavior such as when the car touches the edge of the road or divider several times. The company has also begun measuring not only the vehicle but also the driver themselves. As Puscher (2020) explains, the software first measures the face of the target subject and sets virtual registration points, for example, at the edges of the eyes and the corners of the mouth. The movement of these points is measured, and this results in curves in a coordinate system. Among other things, the system should even be able to detect whether a passenger in the vehicle likes the music that is being played over the speakers. For pattern recognition, the system is fed numerous images of smiling and crying people. Feelings expressed through yawning or frown lines cause the software few problems under daylight conditions. Currently, the focus is on the recognition of subtler facial expressions. However, illumination is problematic. If the contours of the passenger's face are not clearly visible, the software will not be able to see anything (Puscher 2020).

Diedrichs (2020), on the other hand, does not rely solely on AI but analyzes and evaluates the recognition of emotions in the vehicle with the help of evaluated test interviews, physiological data, and neurological sensors. In studies that tested people in driving simulators, driver condition data were collected, and the potential for the real-time recognition of emotions and micro-emotions was evaluated using the supervised learning approach. Based on physiological data and behavioral data, emotions and driver states can be measured in real time. For this purpose, a reference method was developed to induce target emotions in a standardized way in an application-oriented context in a driving simulator or real vehicle. Subsequently, the Fraunhofer IAO evaluated different combinations of sensors in a benchmark study in the driving simulator, including camera-based face and gesture analysis, heart rate measurements, eye tracking, and EEG, regarding their potential for

recognizing emotions. As a result, Diedrichs (2020) reported that the effectiveness of the reference method for emotion induction could be validated with questionnaire data and a reference database. With the help of machine learning approaches and supervised learning algorithms for the classification of target emotions, AI-based classification methods can be designed that achieve a predictive power of 6–95% depending on the target emotion.

AI-based text and speech analysis tools, which are used as a basis in certain settings, have also become very popular. At the beginning of an application process, for example, the candidate may spend 15 min describing what he or she imagines as a typical Sunday and what his or her last vacation was like. This is recorded, and the answers are evaluated by "Precire," a software program that analyzes voice, word choice, and speech patterns (Precire 2020). This is used to produce an expert opinion that can be decisive for the candidate's chances of getting the job. At this point, an applicant should consider how this procedure affects him or her, whether it is intended to detect any hidden bad qualities or weaknesses, whether he or she is being evaluated as a good fit for a particular position in a serious and respectful manner, and how great his or her interest actually is in working for the company. A conversation with a computer that generates a psychological personality assessment from a 15-min speech sample probably does not qualify as a respectful method. Otto (2020) emphasizes that data protectionists and psychologists have evaluated this software negatively. Last year, the "Precire" software even won the Big Brother Award. This is a negative award whose "winner" is determined by various data protection initiatives from among companies or even individuals who "substantially affect the privacy of people."

5.7.3 AI-Based Emotion Recognition of Posture and Gait

Schreiner (2020) presents another approach to AI-based emotion recognition; it is intended to recognize feelings based on posture or gait and promote the development of socially intelligent robots. An early component of the evolution of humans was their sociality or empathic ability to read the emotions of other humans in their faces and body language. Narayanan et al. (2020) attempt to recognize a person's emotions by their gait. The reasoning behind this is that an increasing number of robots are being used in private homes, workplaces, and public spaces. There, they will be in close contact with humans and should behave with social intuition, which means recognizing the intentions and wishes of humans and not getting in the way (Fig. 5.11).

The prerequisite for this is having a basic understanding of human emotion and of how intentions can be anticipated, social boundaries can be respected, and social expectations can be recognized. These are tall demands for a machine because even taking evasive action on a sidewalk is a highly complex matter. Experiences from research on autonomous driving and avoidance maneuvers have shown similar difficulties. The ability to read body language is therefore particularly important because it indicates the direction in which someone wants to go and whether they are

Fig. 5.11 Postures to be translated by AI into emotions

rushed or relaxed. In tests with robot prototypes equipped with this algorithm, Narayanan et al. (2020) achieved an average accuracy of approximately 82% in the correct recognition of four emotions, namely, angry, happy, sad, and neutral. In practice, if the AI robot detects an angry human, it changes its planned route and avoids the human. If it detects a sad person, it keeps more distance so as not to disturb him. Therefore, initial research has already produced promising approaches, although the application scenarios are limited, the datasets are small, and the machines' reactions to human emotions are kept simple. Objectives for the future include increasing the number of identifiable emotions, such as excitement, disgust, and confusion. Furthermore, AI should also be able to function independently of culture due to understanding the cultural contexts that influence human emotions (Schreiner 2020; Narayanan et al. 2020). In sales, of course, combined procedures are also possible, e.g., when a person enters a store, and the robot assistant that would normally approach her sees an unhappy face, the robot will retreat and help another customer instead. Face recognition and gait analysis must therefore work together. This is a notable problem when facial recognition AI that currently does not work well is combined with a prototype. Face recognition technology is easy to deceive, as the AI system usually automatically associates certain facial expressions with certain emotions but does not distinguish a malicious or unhappy smile from a real smile. Therefore, emotion recognition systems that take the context into account are more accurate. However, they are more complex and far less common. What is important is not only what the machine's goal is but also what it has been trained for. For example, a system trained on simulated emotions expressed by actors might have problems with the recognition of real emotions (Kuksov 2019).

5.7.4 AI-Based Emotion Recognition Based on Text

Do companies have emotions? Buechel et al. (2016) posed this interesting question and analyzed nearly 1700 annual reports and sustainability reports from 90 companies in the USA, Great Britain, and Germany. These data were compared with the Reuters newswire corpus to determine which emotion words appear in the reports. The Reuters corpus has been used as an analytical resource to provide a good basis for comparison. Pure sentiment analysis is bipolar—i.e., it deals only with the categories of positive, negative, neutral, and ambivalent words—while emotion analysis looks for unambiguous words such as fear or joy and compares them with the corpus. Through this comparison, the study found that annual reports were written in a rather emotionally neutral way, while sustainability reports were much more emotionally charged like reporting in sports or fashion. Another result was that these emotions were unmistakable and stable over time, so it could be concluded that companies have a clear emotional profile. This work is a further step in extending the "sentiment" analysis in texts, which has its origin in the analysis of subjectivity through, for example, opinion polls, especially in politics.

The results of the study clearly show that there are fundamental differences in the emotionality of companies so that one can even speak of an organizational identity. Certainly, it would have been interesting to break the results down further in order to, for example, determine whether companies in different industries have very specific profiles and to examine the extent to which these profiles may be characteristic of each industry. In other words, the emotional profile of a German mechanical engineering company is significantly different from that of a retailer; it would be interesting to determine the reasons for this difference. The same question could also be asked across countries; for example, are there differences in the profiles of companies from the USA, Great Britain, and Germany or are companies similar in these countries, so that mechanical engineers from the USA have a similar profile to those in the USA and Great Britain.

A similar approach is taken by Mohammad (2012), who analyzes letters, books, and e-mail correspondence. Approximately 5.2 million published (and thus publicly accessible) letters and books digitized by Google as early as 2012 were the sources for this study. The communication of the US company named Enron for the period from October 1998 to June 2002 was selected for e-mail analysis. At that time, it was the only dataset available for this type of study.

Mohammad sees the application of emotion word analysis in books to extend to, for example, examining texts from a sociological perspective and over time. Doing so would make it possible to investigate how books characterize different people with emotion words, e.g., convey their sense of belonging to a certain ethnicity, or gender. It would also allow researchers to gain insights into the importance of the role of emotional words in discourses or negotiations. For example, researchers could determine which results are associated with having many or few words and positive or negative words.

His analysis of Enron's e-mail communication is very revealing for the topic of digital leadership and agile change. A total of 200,000 e-mails were sent and

received by 41 women and 89 men. When men send e-mails, they use many more words associated with trust than women do. Similarly, when e-mails are sent to both women and men, men receive e-mails with more trust-associated words, while women receive e-mails with more joy-related words. In other categories, men use words associated with trust, fear, and disgust, while women use words associated with joy, surprise, and sadness. One conclusion from these results is that women are more likely to share their concerns with other women, while men are more likely to use fear-related words in communication with other men. Thus, women communicate more on a joy–sadness spectrum and men on a trust–fear spectrum.

The benefit of such an analysis certainly lies in recognizing how someone communicates, and in times of digital transformation, it is a new strategic imperative to build emotional customer relationships to be successful in the platform economy. It is almost banal to say that if sales do not communicate emotionally, no emotional relationship can be established. Therefore, the first step is certainly to analyze external e-mail communication with customers and suppliers to obtain a preliminary indication of the emotional character of the communication. Depending on the results, training measures can then be initiated to train the relevant contact persons to communicate in an emotionally appropriate way.

5.7.5 Technical, Ethical, and Legal Challenges of AI-Based Emotion Recognition

However, the spread of AI-based emotion recognition creates another important problem. Regardless of how effective they are, such systems penetrate people's privacy. For example, if a public space is monitored with this technology, a random passerby might look at another pedestrian for a little longer than usual because he likes the other's clothes; if his facial expression suggests that this is the case, he may immediately afterwards be confronted with advertisements for the same brand of clothes.

Who would be willing to accept such a situation? Kuksov (2019) cites a study by Gartner in which more than half of all inhabitants of the USA and Great Britain do not want AI to analyze their feelings and moods. Moreover, emotion and facial recognition technologies are prohibited by law in some places. In October, for example, California introduced a law prohibiting police officers from recording, collecting, or analyzing biometric information, including facial expressions and gestures, with body cameras. Using such a procedure with AI facial recognition tools is comparable to checking the IDs of passersby every second and could violate citizens' basic rights. The protection of privacy is therefore an urgent concern and has already led to the development and use of tools that can deceive AI-based emotion recognition. Technologies that, for example, remove emotions from the voice when it is recorded are already in use. The protection of fundamental rights certainly delays and complicates the development of empathy in AI systems, which are still prone to error, but until clear regulations are in place, the use of such tools seems justified (Kuksov 2019).

The current publication of the AI Now Institute (Crawford et al. 2019), which was founded in 2017 at New York University, to investigate the social effects of artificial intelligence, also aims to investigate these issues. US researchers are calling for the automated recognition of human emotions to be banned in certain cases. However, policy experts are less bothered by surveillance concerns. Rather, they argue that there is little or no evidence that these new products for detecting emotions have a scientific basis. Honey and Stieler (2020) state that the scientific basis for emotion recognition is still controversial. Although Ekman developed a theory at the end of the 1970s that promised to make emotions objectively measurable, he assumed that a minimal set of basic emotions is, so to speak, hard coded in our genetic heritage. He claimed that they respond to external stimuli quasi-automatically and can therefore be detected worldwide, regardless of the cultural backgrounds of the people involved. In Sect. 2.5, it was shown that this claim is still difficult to prove because in his theory, the reference to the individual context or situation in which a person is located and experiences an emotion is not adequately considered. The scientific discourse on this matter is therefore also very contradictory. Various researchers have come to different conclusions on, for example, the number of basic emotions, so the correctness of Ekman's assumptions is still questioned. The research results of Barrett (2017) also call Ekman's claim into question, but she sees the fundamental problem of his theory is that the attempt to assign a "unique fingerprint" to emotions is doomed to fail in principle. Emotions arise from the interaction of physical reactions and experiences stored in the memory. Practically no feeling can be understood without context.

In 2019, Barrett et al. (2019) published an extensive meta-study on the expression of emotions via the face and the perception of emotions in other people. Barrett et al. (2019) postulate that a majority of the population and many experts believe that a person's emotional state can be directly derived from facial movements, which are typically referred to as emotional expressions or facial expressions. This assumption influences situations in everyday life, e.g., in business, in judiciary systems, in the context of political decision-making, in education and healthcare, and in the development of commercial applications such as artificial intelligence and general software. The results of the meta-study suggest that people sometimes smile when they are happy, frown when they are sad, frown when they are angry, and frown when they are not angry to correspond to the expectations and assumptions of the general public. However, there are differences, for example, in the communication of anger, disgust, fear, happiness, sadness, and surprise, which can vary considerably between cultures, situations and even multiple people in the same single situation. In her opinion, facial movements can express more than one emotion, so there is always room for interpretation that can be deciphered only by considering the context of the situation, e.g., a scowl can often communicate something other than just an emotional state. There is a consensus among scientists that facial movements convey a great deal of information that is important for emotional social communication. Accordingly, the conclusion of Barrett et al. is somewhat disappointing, as they say that "no matter how sophisticated the computational algorithms are, it is

premature to use this technology to reach conclusions about what people feel on the basis of their facial movements" (Barrett et al. 2019).

Honey and Stieler (2020) underline these statements with a criticism from Marsella, one of the coauthors of the study. She distinguishes between affect and emotion, arguing that it is not possible to infer inner emotional states merely from the observation of facial expressions, but the automated recognition of affect is certainly within the realm of possibility. In her opinion, the decisive difference is that AI analyzes faces that people have previously assigned certain emotions to. In other words, the system learns that a human observer would most likely interpret this or that facial expression as this or that emotion. However, without knowledge of the context, humans are not very good at interpreting the emotions of others. The average hit rate is 60–70%. However, this does not say anything about the inner, emotional state of a person. Interestingly, this contradicts the results of Barrett (2017), who has shown that assigning emotions to faces presents enormous difficulty because the context is crucial for a good interpretation or understanding of the presented emotion. Furthermore, it seems unrealistic that an AI developer would integrate these subtleties of observation into his design. To date, the idea of Ekman and Goleman from the 1990s popularizing their approach still prevails, and there is obviously still enough business being conducted with this outdated view.

Barrett's meta-study takes this up and presents AI Now as evidence that emotion recognition has no scientific basis but is of great economic importance, so that a considerable need for regulation has arisen. Crawford et al. (2019) argue that:

> The affect-recognition industry is undergoing a period of significant growth: some reports indicate that the emotion-detection and -recognition market was worth $12 billion in 2018, and by one enthusiastic estimate, the industry is projected to grow to over $90 billion by 2024. These technologies are often layered on top of facial-recognition systems as a 'value added' (Crawford et al. 2019, p. 50).

They give numerous examples of what areas can be incorporate AI-based emotion recognition. For example, there is already an AI system that keeps track of how often a candidate smiles during a job interview, which is considered a criterion for a positive emotional basis and increases the candidate's chances of being hired. However, the use of AI in law enforcement and organizations with security tasks is also criticized.

> Affect-recognition software has also joined risk assessment as a tool in criminal justice. For example, police in the US and UK are using the eye-detection software Converus, which examines eye movements and changes in pupil size to flag potential deception. Oxygen Forensics, which sells data-extraction tools to clients including the FBI, Interpol, London Metropolitan Police, and Hong Kong Customs, announced in July it also added facial recognition, including emotion detection, to its software, which includes "analysis of videos and images captured by drones used to identify possible known terrorists" (Crawford et al. 2019, p. 50)

This is worrying information and coincides with the remarks in Chap. 2, which indicate that there is still substantial need for research to clarify what emotion

actually is. There is still no universally valid definition, consensus or definition of emotion, but a stronger and more intensive cooperative effort from scientists and practitioners that brings together positivist thinking, and constructivist considerations could end the small-scale work and allow everyone to benefit from the work. A statement by Crawford et al. (2019) also complements this view:

> In short, we need to scrutinize why entities are using faulty technology to make assessments about character based on physical appearance in the first place. This is particularly concerning in contexts such as employment, education, and criminal justice (Crawford et al. 2019, p. 50).

This could also clarify why so much money is invested in startups that try to build skyscrapers on quicksand. Many companies and public administrations then also procure these applications.

The AI tools presented here seem to be rather unsuitable for supporting organizations that plan and implement digital transformations and are facing major changes in their culture and approaches to change management. It is questionable that employees would like to be scanned in the morning when they arrive at the office or in their first video call to determine whether they are in a good or bad mood and whether that shows on their face. Individual work, the exchange of emotional experiences within a team, the clarification of intercultural differences in emotional and everyday experiences—and all this in a trustworthy environment that protects privacy and personal data—seem to be much more important than AI-based knick-knacks.

5.7.6 Summary and Conclusion AI-Based Emotion Recognition

The overall view of AI-based emotion recognition applications, as shown in Table 5.5, is that many solutions have not yet left the experimental stage. Even the fact that facial recognition, consistently collides with data protection requirements is a serious disadvantage for extending such technology to commercial uses. Technical susceptibility to errors and the numerous possibilities for deceiving these systems, which then lead to false results, also cause doubt. If used to identify emotions, the error rate of such technology is probably quite high. Recording the satisfaction of a customer when entering and leaving a building without having obtained the consent of the person in advance is also questionably acceptable.

The most serious problem, however, lies in underlying emotion theories, which actually serve as the basis for the algorithms used but are not explicitly disclosed. Therefore, the task that remains is to summarize the three concepts related to individual AI solutions. As a reminder, the definitions are listed here once again:

Table 5.5 Overview of AI-based emotion recognition

AI	Technology	Use and application	Emotion theory
Face	Video	– Marketing, sales, HR, cars – Recruitment, security, customer satisfaction	Motivational theory, because it is postulated that facial expressions reveal feelings that indicate how a person intends to behave. They are understood as universal
Voice	Audio	– HR – Recruitment, safety, health	Combination of motivational and feeling theories, as feeling is represented in one's voice and thus an intention or motivation can be expressed
Gait	Video	– Distribution, security – Retail robots	Embodiment as further development within feeling theory. A person's gait characterized by drooping shoulders or an upright posture can express a change in self-confidence
Text	Software	– Marketing, sales, management, all functions – Change management culture analysis, management of the emotional customer relationship	Appraisal (cognitive) theory, since the writing of a text is linked to an assessment or evaluation, which usually requires a cognition, interpretation, thought, judgment or construct
Total	AI is still faulty, and there are technical defects and no sufficient and sustainable emotion related theoretical foundations have been applied; data protection is somewhat insufficient		

Definitions of Emotion Theories

Feeling theory:

An emotion describes in an unmistakable way a conscious perception, sensory impression or subjective quality of an experience.

Motivational theory:

Emotion describes a specifically motivating state or a certain behavior pattern

Appraisal (cognitive) theory:

Emotion is associated with a judgment or evaluation, which is usually a cognition, interpretation, thought, judgment, construct or any other kind of mental representation of the triggering circumstance or stimulus

Theory similarities:

All of these theories have the common characteristics of quality, intensity, duration, action orientation, object orientation, physiological aspects, and cognition and have ***no*** universal validity. Likewise, there is no contextualization of emotion that philosophy, history, or sociology can provide. ◄

Embodiment approaches to emotion are normally used as a basis for recognizing emotions by someone's gait. In such circumstances, it is assumed that all cognitions

and emotions activate multimodal representations, e.g., the word "bicycle" can activate the image, posture, smell, and sound of a bicycle. The voluntary execution of emotional behavior can activate emotional components. For example, sitting upright might produce emotions such as pride, and sitting slumped in a chair might not produce pride but rather depression or sadness. It is also conceivable that a gait characterized by drooping shoulders or by an upright posture will result in a change in self-confidence.

An assignment of emotion could then be made as follows:

The application of AI solutions for voice analysis in an organizational context, e.g., in personnel selection, also appears questionably acceptable, as the scientific foundation of what emotion actually is often unclear. Relying on the findings only of motivational theory or basic emotion theory and thus on the recognition of emotion by facial expressions without considering the cognitive factors of the appraisal theory or feeling theory makes it more likely that the results will be just as subjective and actually less meaningful than if classical instruments for this purpose had been used. Additionally, gait and posture are only conditionally suitable for use with AI, although AI developers assure customers that their AI works across different cultures. Differences in gender and general physical characteristics such as weight and height have not been specifically emphasized as features of differentiation, but they certainly have an impact on the ability of AI to detect emotion when different pedestrian speeds are detected. Sentiment or text analysis seems to be a viable and reasonable option if a corresponding corpus exists for comparison to create an emotion profile of a company that allows conclusions to be drawn about the emotional content of communication with external customers or suppliers. Here, it is possible to reliably investigate how emotional the exchange is, and which adjustments should be made in written expressions to improve relationships with customers and suppliers. This could drastically improve the chances of success for companies operating in the platform economy. Apart from technical issues, ethical and legal problems remain unresolved, so legislators are called upon to formulate and adopt appropriate regulations and legal provisions, especially regarding use of AI technology in the public sector, police forces, and judiciary systems. Appropriate monitoring of compliance with the regulations should also be explicitly taken into account.

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Conclusion

6

The world in which we live is changing with enormous speed, and there is no end in sight. The use and significance of information technology (IT) began in the 1970s with the first computer systems being used in industry. Since then, IT has become indispensable not only for industry but also for public administration and society at large. Free trade and the movement of goods in the European and global economic areas are unthinkable without IT, which optimizes developer cooperation and supply chains. Megatrends such as globalization and digitalization, transformational communication technologies, climate change, the shift of political and economic power eastward to China, and the convergence of technology and culture in the new millennium that will affect the future of work, accompanied by far-reaching demographic changes, pose enormous problems for many organizations and are forcing them to make radical changes.

Lobo (2019) describes one of the greatest challenges as the emergence of the emotional economy, which has developed as a side effect of the platform economy and, for a long time, has been rapidly growing almost unnoticed. In the past, it would probably have been unthinkable that a young woman such as Kylie Jenner could become a billionaire at the age of 21 by selling cosmetic products through her platform on Instagram. She understands how to reach young people in a targeted manner on a social networking site. The art of staging has replaced traditional marketing and sales instruments. The central factor in her success is her ability to build a relationship with her subscribers. Sales and logistics are consistently outsourced to external service providers. Instagram has mutated to a shopping platform with a community character. This shows that the control of resources is less important now than in the past, but the control of relationships is crucial. Indeed,

> Kylie Jenner's economic power lies in controlling the relationship with her fans, who are also her customers (Lobo 2019, p. 342).

Consequently, every digital relationship must contain an emotional design element because one prerequisite for the design of such a platform is the consideration

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of three conditions: the platform must be inspiring and fast, and boredom during shopping is not acceptable; delivery must also be fast because many people do not want to be delayed and are impatient to obtain the products; and it must be convenient and easy to shop right on the platform. All steps of the process must be tailored to the user.

The demands on companies and their managers have not diminished as a result of such changes. The CIO responsible for implementation must not only control the costs of IT operations but also have up-to-date knowledge of methods such as SAFe, design thinking, and rapid prototyping, as well as be able to lead and motivate young employees, keep up with the latest technological developments, and implement this knowledge in the company's new products. The concepts of change management must also adapt to this world, and classic formats such as those of von Kotter or Doppler do not meet this requirement. Agile change as a methodical challenge for simultaneous adaptation to new internal and external conditions must be at the top of a CIO's list of priorities. This will certainly lead to conflicts, which will also have to be dealt with emotionally. It is therefore important to become very familiar with emotional-theoretical basics to develop skills both to understand and serve the emotions of customers and to lead employees emotionally. Concepts such as Goleman's emotional intelligence and emotion recognition based on facial expressions are neither scientifically sound nor in any way suitable for appropriately dealing with emotions. It is much more important to understand how emotions arise in humans and why the concept of bio-constructivism provides surety in dealing with emotions in everyday life, at work, and in one's private life. Language is also very important as a mediator of thinking and feeling. Language influences perception, thinking, and memory, and the better or more precisely an individual is able to express himself emotionally, the more efficiently and confidently his personal feelings and those of other people can be understood and treated. Changes of this magnitude induce fear and anxiety, as many organizations are facing an uncertain future. Naming these feelings and making them visible in teams, groups, departments, and even the whole organization is a real challenge. The basis for this is the knowledge of emotion-based change concepts, including methods of agile leadership, strategy, and procedures for implementation. One central component is a deep understanding of organizational culture because changes on this scale will also result in fundamental changes in culture. Creating a willingness to change is the first task and should be done not by using a fearful approach such as creating a "burning platform" or triggering willingness by creating discomfort with the status quo but rather by co-creating a shared future.

Professionally handling emotions requires the use of methods that render emotions visible, make it possible to share them with others, and protect the privacy of individuals. The formulation of a narrative in the form of a strategic narrative or a graphic novel is very well suited for this as a starting point, as it allows both positive and negative emotions to be shown and provides an introduction to the topic of emotions. The core affect model provides individuals and teams with a tool to name emotions and their perceived intensity, thus creating a kind of emotional landscape that changes over time. It offers the chance to find words for one's own emotions and

to determine what others understand a given emotion word to mean. This stimulates discussion and promotes a common understanding of the emotional situation in the team. The ability to express oneself and access a lexicon of emotional words can thus be greatly improved.

If these prerequisites are met, the more complex COMO model can also be used; this model links all cognitive factors that usually occur in an agile change project, such as strategy workshops, coaching, and team or town hall meetings, with the corresponding emotional experience. From this, it can be deduced which intervention should be carried out with which emotions and intensities and how this emotionality changes over time. The benefit of this model lies in the possibility of recognizing early on when emotions tip in one direction or another. For example, while it is always stated that everything is going well, the course of the aggregated emotions often shows a different picture. In other words, if the project traffic light is green, but the emotional situation is red, this can jeopardize the success of the project. Finally, the benefits and value for the individual of the last analog instrument, mindfulness, should not be underestimated. As a team instrument, it can certainly be further developed, as it seems that managers in particular shy away from becoming more involved in teamwork, for example.

Artificial intelligence (AI) that is made to recognize emotions is an interesting idea. Software has no consciousness like humans and therefore cannot perceive or respond to reactions from within, only what comes from the outside, interpreting it by means of patterns. Even AI inputs have to be taught to the machine by humans, and this is only the first problem. Since emotion is culturally shaped and socialized, a programmer who is not from Germany, for example, must learn to understand how to interpret the emotional landscape of German customers. In other words, the cognitive task of formulating an algorithm determines the resulting emotional understanding of the AI.

The second problem concerns the general technical inadequacies of facial recognition AI, which rarely works well and is also easy to deceive. Against the background of the worldwide protests racism and police violence after the death of George Floyd, facial recognition is obviously becoming an unpleasant topic for large tech companies. The protests against racism have reignited the controversy over facial recognition technology. As Breithut (2020) reports, IBM recently withdrew completely from the facial recognition field, and Amazon announced, at least to the police in the USA, that it would block access to facial recognition servers for 1 year. Microsoft decided not to offer the software to the US police in the first place. This old dispute about AI-based technology is flaring up again because even after years of development, facial recognition software still has a racism problem. The use of racially biased software is a particularly sensitive topic regarding border control and law enforcement. It can present risks for innocent people if they are wrongly classified as suspects. Such errors in image matching usually affect people who are perceived to be black or Asian. According to one study, the facial recognition error rate among these ethnic groups is up to one hundred times higher than that among whites. One source of the errors that can lead to false positives lies in the analysis software made by Western companies. Such software is often trained on

datasets with almost exclusively white faces. In this way, the software learns to recognize and distinguish details among white faces better than those among other population groups.

On this basis, the emotion a person is currently feeling should be able to be recognized, and a corresponding activity should be able to be initiated to achieve a certain result. Except for AI-based text analysis for emotion recognition, no AI is currently fully recommended for use in companies. It is doubtful whether two faulty systems can be turned into one that works smoothly, as two wrongs do not always make a right.

In conclusion, it can be said that there is still much to be done to meet the challenges resulting from megatrends in digital leadership, agile change management, and organizational culture. The emotions inevitably induced by the uncertainty of the future must be addressed and discussed openly and with trust. The toolbox of the old heroes of change management seems to provide only instruments that are insufficient in terms of quantity and quality. The emotional-theoretical basics as presented in Chap. 2 provide a knowledge base that is suitable for setting new directions for an approach that is beneficial to oneself, one's colleagues, and one's customers and suppliers.

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