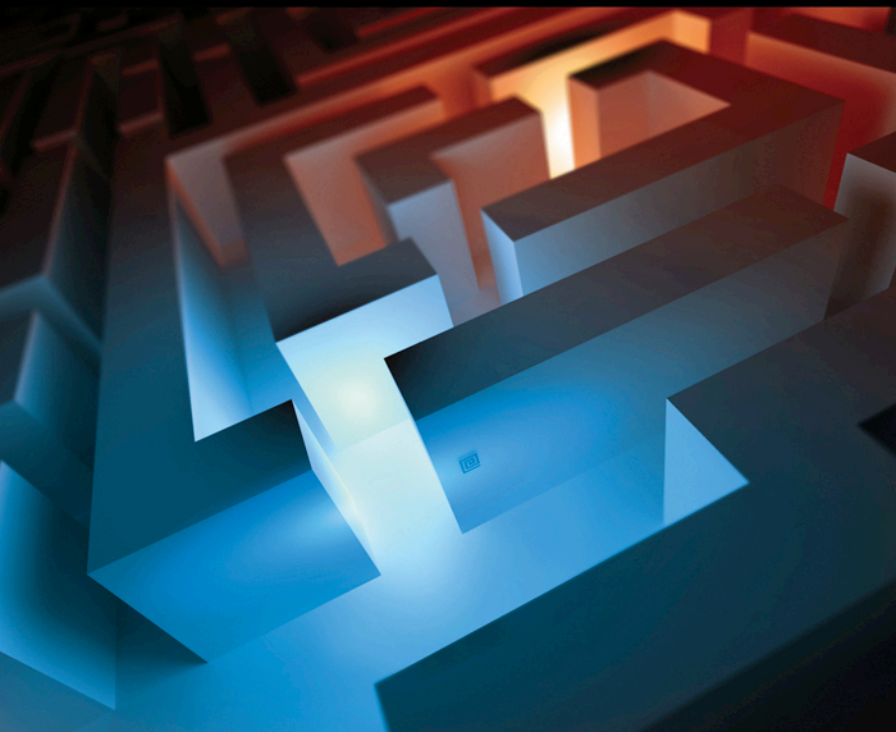# HANDBOOK OF
Policy Formulation

Edited by
Michael Howlett • Ishani Mukherjee

HANDBOOK OF POLICY FORMULATION

HANDBOOKS OF RESEARCH ON PUBLIC POLICY

Series Editor: Frank Fischer, *Rutgers University, New Jersey, USA*

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Handbook of Policy Formulation

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HANDBOOKS OF RESEARCH ON PUBLIC POLICY

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PART I

INTRODUCTION: POLICY FORMULATION AND THE POLICY PROCESS

1. Policy formulation: where knowledge meets power in the policy process
Michael Howlett and Ishani Mukherjee

INTRODUCTION: DEFINING POLICY FORMULATION

Public policies emanate from societies' efforts to affect changes in their own institutional or public behaviour in order to achieve some end goal key policy actors consider to be important. Such policies are determined by governments but involve other actors and institutions – private, commercial, family and others – in often complex governance and governing arrangements and relationships (Howlett & Ramesh, 2016).

Policy formulation is part of the process of developing public policies and involves governments and other policy actors asking and answering questions about how societies can deal with various kinds of problems and conditions affecting citizens and organizations in the pursuit of their goals. These questions vary in range and scope, but addressing them typically involves deliberations among a wide range of actors about what kinds of activities governments can undertake, and what kinds of policy instruments or levers they can employ, in crafting solutions for the public and private dilemmas they identify, or consider to be, policy problems. Some problems may defy solution, such as poverty or homelessness in many countries and jurisdictions, and others may be more easily resolvable. But whatever solutions emerge from formulation activity are the basis of what, once adopted, becomes a public policy.

The exercise of matching policy goals and means is thus central to the tasks and activities of policy formulation. This is not a neutral or 'objective' or technical process, of course, although it may sometimes be viewed in this way. As one of the earliest proponents of the policy sciences, Harold Lasswell, stated in 1936, it is a political activity thoroughly immersed and grounded in questions about 'who gets what, when and how' in society (Lasswell, 1936).

In this light, the formulation of policies, or the matching, and often mis-matching, of goals and means, or policy aims and instruments, occurs through the interplay of knowledge-based analytics of problems and solutions with power-based political considerations. It emerges through the interaction of technical analyses of goals and instruments and the political assessment of the costs and benefits to particular actors, the partisan and electoral concerns of governments, and the realm of ideas and beliefs held by political actors as governments attempt to articulate feasible policy options capable of resolving problems and meeting social goals with at least a modicum of social and political support.

That is, all of this activity occurs within the context of the need to meet and placate the diverse interests of the public, social actors and their administrations. As a result, this process often ends in complex assemblages or mixes of policy aims and policy tools that are somewhat unique to each jurisdiction and may or may not embody much in the way of 'technical' merit (Howlett & Cashore, 2009). However, in this formulation process

and in the subsequent implementation or evaluation of policies, governments can and do learn from their own and others' experiences and can often improve their performance to more effectively attain their aims and goals. Such trial and error, as well as the ability of governments and formulators to learn directly or indirectly from other governments and societies' experiences, allows them to engage in emulation and other forms of interaction that can serve to reduce the differences found between jurisdictions and can lead to large similarities in policy design and content among even the most diverse societies (Bennett, 1991; Bennett & Howlett, 1992).

POLICY FORMULATION AS A (SUB-)PROCESS OF POLICY-MAKING

In general, 'policy formulation', or the activity of finding, devising and defining problem solutions, takes place once a public problem has been recognized as warranting government attention. Formulation thus follows an initial 'agenda-setting' stage of policy-making and entails the various processes of generating options about what to do about an identified and prioritized problem. During this period of policy-making, policy options that might help resolve issues and problems recognized at the agenda-setting stage are identified, refined and formalized. Formulation activities are thus distinct from other aspects of policy-making that involve authoritative government decision-makers choosing a particular course of action, or the actual implementation of the policy on the ground (Schmidt, 2008).

This provision of solutions to problems is a complex matter and in practice the development of options and alternatives to specific kinds of problems facing societies and governments in think tanks, research institutes and other venues often precedes the articulation of problems by a particular government. Hence, governments often find themselves in the position of being either leaders or laggards in recognizing and addressing problems and discussing or implementing possible solutions (Gunningham et al., 1998). While there are some advantages to being leaders, there is a greater risk of failure with innovating problem definitions and solutions. Laggards can benefit from both the positive and negative experiences of leaders and often can inherit an already well-discussed and elaborated set of policy solutions when they do eventually turn to address a particular problem already dealt with in other jurisdictions (Béland & Howlett, 2016). Thus, a major component of the policy formulation activity undertaken by governments is the monitoring of events in other jurisdictions, and even other branches of the same government, to see how various efforts and tools aimed at providing solutions to problems have fared.

POLICY FORMULATION AS A FIELD OF POLICY STUDY

Policy scholars have always been interested in how policy instruments fare and how successful a government has been in their creation and deployment, but the literature on policy formulation has thus far remained quite rudimentary and fragmented (Sidney, 2007).

The study of policy tools and their design has been one major venue for building knowledge about policy formulation (Salamon, 1989, 2002). Policy instrument studies have over the last several decades been concerned with what Cochran and Malone (1999) deem to be the substantive 'what' questions of policy-making. That is, 'What is the plan for dealing with the problem? What are the goals and priorities? What options are available to achieve those goals? What are the costs and benefits of each of the options? What externalities, positive or negative, are associated with each alternative?' (Cochran & Malone, 1999, p. 46). In parallel with this effort, the study of policy design has also dealt with the 'how', or the procedural and process-oriented questions about how best to formulate policy solutions and how such solutions have evolved over time and spread over space (Considine, 2012; Howlett, 2000; Linder & Peters, 1990; Schneider & Ingram, 1997). Much useful knowledge about processes and designs has emerged from these studies (Howlett et al., 2015).

Key questions regarding the different actors involved in the process of policy formulation and the capacity and extent of their involvement, on the other hand, until recently have remained relatively less well explored and their findings more poorly integrated (Howlett & Lejano, 2013). This Handbook makes a novel contribution in exploring both the existing strong and weakly addressed subjects of policy formulation by examining the analytics as well as the politics entailed in these processes, and by bringing together for the first time a wide range of research findings on the subject.

ORGANIZATION OF THE HANDBOOK

Using the various questions about policy formulation posed above as a guide, this Handbook unites scholarship on policy tools and design with that examining policy actors and the roles they play, why and with what effect, in the formulation process.

The contributions in Part I situate policy formulation in the greater policy process in order to set the context for the remaining chapters and parts. Part II then deals with the 'what' and 'how' components of formulation, detailing the substantive and process-oriented considerations concerning what goals are defined during formulation and how policy artefacts – such as policy instruments and their combinations in policy mixes and programmes – are created to address them. Part III continues the focus on the 'how' questions and picks up on the operational facets of formulation and its modes of analyses, including chapters on the participation of non-state actors in policy creation. This focus on the agency or 'who' of policy formulation is further developed in Part IV, where several chapters discuss the various actors who supply information, knowledge, policy advice and enterprise during the formation of policy. The contributions in Part V then look more closely at the role that experts of different kinds play in defining policy problems through their collective activities as epistemic actors who, among other things, influence how policy targets are defined and considered during formulation.

In Part VI, the contribution of various actors in proposing policy solutions is explored. This part examines the role of 'instrument constituencies', think tanks and research organizations in shaping and disseminating policy alternatives, while also discussing the institutional and behavioural aspects of their activities that influence their ability to shape formulation.

Delving deeper into the politics of policy formulation, Part VII includes a discussion of policy paradigms and the political economy that inform and influence the nature of formulation activities including the kinds of ideas and beliefs that shape policy alternatives and considerations and determinations of their acceptability or political as well as technical 'feasibility'. The influence of political parties as well as interest groups is also examined in this part.

Part VIII concludes with chapters that discuss trends in contemporary policy formulation research and practice such as the significance of movements towards the increased 'politicization' of policy advice, the struggle between proponents of experience- versus evidence-based formulation processes, the changing role of media in influencing and informing policy actors, as well as the phenomenon of the intentional disproportionality of government responses to problems in many circumstances.

WHAT DOES 'POLICY FORMULATION' MEAN?

As set out above, formulation is that stage of policy-making where a range of available options is considered and then reduced to some set that relevant policy actors, especially in government, can agree may be usefully employed to address a policy issue. This generally occurs before the issue progresses onwards to official decision-makers for some definitive determination, although those decision-makers may have in their public pronouncements or electoral platforms and other statements already signalled which kinds of efforts they might countenance and which they would not.

Formulation activity hence entails not only calculations of the relative benefits and risks of the various policy means that can be considered to match stated policy goals but also their potential feasibility or likelihood of acceptance and thus involves both a technical as well as a political component.

That is, once a social problem has been elevated to the formal agenda of the government, policy-makers are usually expected to act in devising alternatives or potential solutions to it. Although they may ultimately do nothing or react in a purely symbolic way, as Charles Jones (1984) highlighted, the essence of policy formulation is simply that various ways to deal with societal problems are proposed and deliberated upon by government officials and others knowledgeable about the problem. Their proposals for action or inaction may come about during the initial agenda-setting discussions, during which a policy problem and a possible solution can become coupled on the government's agenda (Kingdon, 1984); they may also arise from past efforts, successful and otherwise, in dealing with an issue.

This depiction paints formulation as involving several disjointed activities within a larger policy-making process that will be carried out differently in each jurisdiction and situation given the range of different actors, institutions and histories involved in efforts to define and resolve policy issues. However, others have noted that it is possible to identify general attributes of the formulation process that are similar across jurisdictions (Howlett et al., 2009).

Several characteristics of generic policy formulation activities have been described in the policy studies literature. Jones (1984, p. 78), for example, depicted the following broad attributes of formulation in practice:

- Formulation need not be limited to one set of actors. There may well be two or more formulation groups producing competing (or complementary) proposals.
- Formulation may proceed without a clear definition of the problem, or without formulators ever having much contact with the affected groups. Along the same vein, ill-structured problems, or those which embody a great deal of uncertainty in terms of the range of their impact, are also dealt with during formulation, as explored in Chapter 2 by Nair and Howlett.
- There is no necessary coincidence between formulation and particular institutions, though formulation is a frequent activity of bureaucratic agencies.
- Formulation and reformulation may occur over a long period of time without ever building sufficient support for any one proposal.
- There are often several appeal points for those who lose in the formulation process at any one level.
- The process itself never has neutral effects. Somebody wins and somebody loses even in the workings of science.

In terms of process, Harold Thomas (2001) noted that four aspects of policy formulation are usually visible: appraisal, dialogue, formulation and consolidation.

During appraisal, information and evidence necessary to understand the issue at hand is sought and considered. This step in formulation is where data about policy problems and their solutions – in the form of research reports, expertise and input from stakeholders and the general public – is considered. Following this, a dialogue phase between actors engaged in policy formulation ensues. This dialogue is centred on the deliberation and exchange of different viewpoints about the policy goals and potential means to resolve them. Dialogues can be structured with the involvement of chosen experts and representatives from the private sector, labour organizations or other interest groups, or they can take place as more open and unstructured processes. The structure of the dialogue can make a significant difference on the impact of that participation in the formulation process (Hajer, 2005). While established expert opinion is often sought at the expense of new input during formal proceedings, efforts to involve participants from less established organizations and viewpoints can invigorate the discussion.

Central to this process is the actual formulation phase, wherein administrators and public officials scrutinize the costs, benefits, challenges and opportunities of various policy alternatives in the effort to consolidate a proposal or proposals about which alternatives or mix of alternatives will proceed through to authoritative decision-makers. This phase embodies the actual policy 'work' that defines policy formulation, an aspect that is discussed further by Nekola and Kohoutek in Chapter 3. The choice of some policy alternatives over others is likely to draw opposition from actors whose preferred instruments are sidelined. These and other forms of feedback about shortlisted policy options are considered during a final consolidation phase in which proposed policy solutions are amended or refined before moving forward.

While some of the issues involved in formulation are technical and have a significant knowledge component, the issues that lead policy formulators to choose some policy options over others need not be based on facts (Merton, 1948). If powerful policy actors believe that a policy option is infeasible or unacceptable, this contention can be enough

to exclude it from further discussion (Carlsson, 2000). Burroughs addresses some of these effects of negative and positive feedback on formulation processes in Chapter 4.

THE CONTENT OF POLICY FORMULATION: INSTRUMENTS AND DESIGN

While this discussion says something about 'how' a policy is formulated, it is less clear about 'what' is being formulated. Here it should be noted that the policy options that are considered during formulation are the embodiment of techniques or artefacts of governance that, in some way, use resources of the state to define and attain government goals (Dahl & Lindblom, 1953; Hood, 2007).

These goals result from the translation of multifaceted and interconnected societal problems into governmental aims and objectives. This translation has implications for what items are considered to be administratively achievable, technically feasible and politically acceptable, and is thus an often contentious process (Dror, 1969; Majone, 1975, 1989; Meltsner, 1976; Webber, 1986). Indeed, even if policy-makers agree that a problem exists, they may not share an understanding of its causes or ramifications (Howlett et al., 2009, p. 113). Focusing specifically on the delimitation of policy goals that are considered during formulation, Veselý's chapter (Chapter 5) discusses the processes involved in the construction of different types of policy problems, their current scenarios and desirable future states.

This raises the question, of course, about the means which governments have at their disposal to address policy problems. Policy instruments, alternatively known as 'policy tools', 'governing instruments' or the 'tools of government', are 'the set of techniques by which governmental authorities wield their power in attempting to ensure support and effect social change' (Vedung, 1998, p. 21).

These two fundamental ambitions, at the most basic level of analysis, place policy tools into one of two categories. The first involves instruments that aim to affect social change, that is, the substance of social behaviour or activity as they directly 'effect or detect' change in the production, distribution and consumption of social goods and services (Hood, 1986). The second category is procedural and focuses internally towards the governments' own policy-making activities. These instruments affect the political or policy behaviour involved in the process of formulation in order to ensure that government initiatives are supported (Howlett, 2000). Chapter 6 by Howlett goes into greater length to distinguish between these two major categories of tools and review various typologies of substantive and procedural tools and their contributions to the policy process.

In the creation of both substantive and procedural policy responses to issues and problems, policy formulation again can be seen to involve the identification of both technical and political limitations in the path of effective state action. That is to say, formulation faces a number of constraints that limit the ability of policy-makers to embark on just any possible proposed course of action (Majone, 1989).

Substantive constraints may arise within the problem itself. The problem of global warming, for example, cannot be entirely eliminated because there is no known effective solution that can be employed without causing tremendous economic and social dislocations. This often leaves policy-makers to tinker with options that barely scratch the surface of the problem (Howlett et al., 2009, p. 112). Such constraints can be considered

'objective' in a sense, since reinterpreting them or recasting them in different terms does not eliminate them.

Procedural constraints, on the other hand, are those that directly impinge upon the process of adopting policy options and are more subjective in nature and subject to reformulation and reinterpretation. These constraints are embedded in the social and institutional contexts within which formulation unfolds, and can include constitutional specifications, the organization of society and the policy-making administration, and established patterns of ideas and beliefs that can lead decision-makers and formulators to favour some options over others (DeLeon, 1992; Falkner, 2000; Montpetit, 2002; Yee, 1996). The specific relationship between social groups and the state, as well as the groups' internal organization and political styles, for example, can create 'policy horizons' or limits to the arrangement of acceptable policy options for certain policy actors that condition their actions, but which are also subject to government manipulation and reorientation (Bradford, 1999; Warwick, 2000).

While many policy formulation studies have been engaged in the exploration of various kinds of policy tools and how they are implemented, there has also been a dedicated focus in the literature on how policy tools and outcomes can be better matched or 'designed'. This latter concentration on the specific devising of policy responses captures the essence of what has come to be known as the policy design 'orientation' in the policy sciences (Howlett et al., 2015). Policy design scholars recognize that policy decisions may often be made in a contingent and irrational fashion, but highlight the nuances of translating ideal 'technical' models of instrument use to context-sensitive solutions. As Linder and Peters argued, the

> design orientation to analysis can illuminate the variety of means implicit in policy alternatives, questioning the choice of instruments and their aptness in particular contexts. The central role it assigns means in policy performance may also be a normative vantage point for appraising design implications of other analytical approaches. More important, such an orientation can be a counterweight to the design biases implicit in other approaches and potentially redefine the fashioning of policy proposals. (1990, p. 104)

In contrast with earlier policy design studies that were concerned with the relatively simple mechanics of mapping single-tool uses, the new policy design orientation adopts a more complex multi-level analytical orientation (Howlett, 2011a). It emphasizes the design of policy instrument bundles and the interactions that take place within such bundles when multiple tools are used in policy portfolios designed to address multiple goals (Givoni et al., 2013; Howlett et al., 2015; Oikonomou et al., 2011).

The design orientation thus envisions policies as being composed of multiple components ranging from abstract policy goals to the more operational objectives of policy programmes, to policy instrument settings and calibrations at the micro level of policy formulation (Cashore and Howlett, 2007; Hall, 1993; Howlett & Cashore, 2009). Effective formulation seeks to integrate these various goals and means within policy mixes, so that their component elements reinforce rather than contradict each other (Briassoulis, 2005; Meijers, 2004).

Drawing on these various themes of multiple policy tool mixes and multiple elements or layers of policies, as well as the temporal processes through which policies develop, the topic of policy design has propagated a burgeoning body of literature.[1] Drawing from

this literature, Chapters 7 (Howlett and Rayner) and 8 (Howlett, Mukherjee and Rayner) delve deeper into the considerations of dealing with multi-tool policy mixes as well as enumerate and investigate the principles of effective design.

HOW DOES FORMULATION OCCUR AND WHY?

Another major question is exactly 'how' policy formulation occurs. As highlighted above, the analyses and comparisons between potential alternatives that are considered during formulation depend greatly on the nature of the policy actors who propose them, their beliefs and ideas about society, and the problems that they feel formulation should address, in conjunction with the nature of the institutional and organizational frameworks within which they work. As noted by Charles Anderson, policy design and formulation are tantamount to 'statecraft' – the exercise of government as 'the art of the possible' (1971, p. 120). Formulation 'is always a matter of making choices from the possibilities offered by a given historical situation and cultural context', and those who are engaged in formulation and policy design use the tools of statecraft to 'find appropriate possibilities in the equipment of society' in order to meet their goals (Anderson, 1971, p. 121).

Understanding the variety of inputs these actors bring to the policy formulation activity and the contexts within which they function thus can shed considerable light on why some policy options gain significant attention while others fall by the wayside. As mentioned above, formulation can take place even without a definite depiction of the policy problem at hand (Weber & Khademian, 2008), and it often proceeds over time in successive 'rounds' of formulation and reformulation of policy goals and means (Teisman, 2000; Thomas, 2001). Within this process, while some policy-makers may look for 'win-win' solutions that maximize the complementarities between the views of different actors, the costs and benefits of different policy choices are borne disproportionately by different participants, leading to contested processes of evaluation and deliberation (Wilson, 1974).

Formulation and design processes are therefore fraught with both political and technical considerations. This reality, however, does not suggest that the systematic effort to pair policy means with goals is impractical and not worthwhile. Instead, it simply means that the implementation of some designs may be impossible in certain contexts and that the choice of any policy alternative involves different policy actors trying to raise and evaluate different preferred policy designs (Dryzek, 1983; Thomas, 2001). This evaluation of the benefits and costs of different policy options by various policy actors can still occur through more or less formal modes of policy analysis, and thus remains a central activity of modern policy formulation (Dunn, 2008; Gormley, 2007; Sidney, 2007).

Discussions of the range of formal and informal analytical techniques that can be undertaken to evaluate options *ex ante* during policy formulation are featured in the contributions to Part III of this Handbook. Chapter 9 by Adelle and Weiland explores formal policy appraisal techniques in policy formulation, while Lehtonen in Chapter 10 discusses the use of measures and indicators to operationalize information during policy formulation. In Chapter 11, Van der Steen focuses on the use of forecasting tools in policy formulation such as impact assessments, future scenarios and planning. In Chapter 12, Johnson looks into the role of public participation and consultation during policy formulation.

SUPPLY, DEMAND AND BROKERAGE OF POLICY ADVICE

These chapters on the 'who', 'what', 'where', 'why' and 'how' of formulation lead the way to the fourth part of the Handbook, which explores in more detail the nature of policy advice and of the advisors who inform decision-makers during the policy formulation process. While powerful political and administrative leaders with decision-making authority are the ones who eventually decide on and thus 'make' public policy, in modern states they do so by following the counsel of bureaucrats, civil servants and other advisors whom they trust to evaluate and consolidate policy options into coherent designs, and who provide policy leaders with expert advice about the merits and risks of the proposals being considered (Heinrichs, 2005; MacRae & Whittington, 1997).

It is useful to think about this wide array of policy advisors as being arranged in an overall 'policy advisory system' within which proximate decision-makers occupy central positions. Studies of advisory systems in a variety of jurisdictions such as New Zealand, Israel, Canada and Australia have furthered this idea of government decision-makers operating at the centre of a network of policy advisors which includes both 'traditional' policy advisors, such as civil servants and non-state actors (non-governmental organizations and think tanks), as well as informal forms of advice supplied by colleagues, members of the public and political party affiliates, among others (Dobuzinskis et al., 2007; Maley, 2000; Peled, 2002).

It is generally considered beneficial to have a large range of actors in the policy advisory system, as this indicates 'a healthy policy-research community outside the government [which] can play a vital role in enriching public understanding and debate of policy issues', serving 'as a natural complement to policy capacity within' (Anderson, 1996, p. 486). The existence of different types of policy advisory systems is linked with the nature of the demand and supply of knowledge in particular policy contexts and sectors (Halffman & Hoppe, 2005).

Policy advisory systems thus are central to the study of policy formulation and to the understanding of the selection and reception given to different policy alternatives and arrangements (Brint, 1990). Conceived of as knowledge utilization venues or 'marketplaces' of ideas and information, advisory systems are comprised of three separate components: the supply of policy advice; its demand by government decision-makers; and a set of brokers who work as intermediaries to match knowledge supply with demand (Brint, 1990; Lindquist, 1998). That is, policy advisory systems undertake one of several general types of analytical activities linked to the types of positions that participants hold in the creation and exchange of knowledge in the policy formulation process.

More specifically, members of policy advisory systems can be identified as being in one of four 'communities' of advisors depending on the advisory role they perform as well their proximity to policy actors and their location either inside or outside government (Table 1.1).

The core actors are those members of the public sector who are closest to the official policy-making units of government and include central government agencies, executive staff and professional government policy analysts. Governmental actors or insiders who work further away, at the periphery of policy advisory systems, belong to federal commissions, special committees and task forces, or serve on research councils and as scientists at international organizations. From the non-governmental sector, actors who are close

Table 1.1   The four communities of policy advisors

	Proximate actors	Peripheral actors
Public/governmental sector	CORE ACTORS ● Central agencies ● Executive staff ● Professional governmental policy analysts	PUBLIC SECTOR INSIDERS ● Commissions, committees and task forces ● Research councils/scientists ● International organizations
Non-governmental sector	PRIVATE SECTOR INSIDERS ● Consultants ● Political party staff ● Pollsters ● Donors	OUTSIDERS ● Public interest groups ● Business associations ● Trade unions ● Academics ● Think tanks ● Media ● International non-governmental organizations

Source: Howlett (2011b).

to decision-makers during formulation and are considered private sector insiders may include private sector consultants, political party staff, pollsters and donor representatives. Actors who are considered to be farthest from the central core of policy formulators, or outsiders, include those belonging to public interest groups, business associations, trade unions, think tanks or non-governmental organizations, or are independent academics or members of the media.

In terms of the specific contribution that policy advisors can make to different policy components, these sets of actors can be thought to exist on a spectrum of influence (Table 1.2). Members of the general public, non-governmental outsiders and insiders often impact the policy discourse at the broad level of abstract policy goals and general policy preferences, while insiders and core actors become more influential as formulation

Table 1.2   Advisory system actors by policy level

	High-level abstraction	Programme-level operationalization	Specific on-the-ground measures
Policy goals	General abstract policy aims	Operationalizable policy objectives	Specific policy targets
(Normative)	Public, outsiders and insiders	Insiders and core actors	Core actors
Policy means	General policy implementation preferences	Operationalizable policy tools	Specific policy tool calibrations
(Cognitive)	Public, outsiders and insiders	Insiders and core actors	Core actors

Source: Howlett (2014).

and design moves to programme-level operations and then on to specifying on-the-ground measures and instruments (Page, 2010).

The contributions in Part IV of the Handbook explore the role that different policy advisors can play during formulation. Craft and Howlett's chapter (Chapter 13) provides an overview of the policy advisory system concept and outlines the significance of various advisory roles during policy formulation. Chapter 14, by Matheson, puts forward a typology to understand the organizational structure of policy formulation in government, while Chapter 15 by Bandola-Gill and Lyall focuses specifically on the role of brokers or the 'third community' in policy advisory systems. In Chapter 16, Gunn examines how individuals can operate in such contexts, focusing on the contribution of policy entrepreneurship to alternative generation and acceptance during policy formulation.

WHY IS FORMULATION DONE THE WAY IT IS?: THE ROLE OF IDEAS

A key component of the content of formulation, also mentioned above, is the type of beliefs and ideas that policy advisors and policy-makers have about the feasibility and optimality of the deployment of various arrangements of policy tools to address social concerns and policy problems. Understandably, the beliefs held by decision-makers about these and other issues plays a key part in influencing their efforts to construct policy alternatives and assess policy options (Chadwick, 2000; George, 1969; Gormley, 2007; Ingraham, 1987; Jacobsen, 1995; Mayntz, 1983). It follows that some ideas about policy instrument choices and options are likely to be more influential than others when it comes to policy formulation, assessment and design (Lindvall, 2009) and that different types of ideas will impact different elements of formulation. For example, abstract policy-level goals such as economic development or ecological conservation emerge out of general ethical logics about alleviating poverty or protecting the environment, while more specific causal constructs about issues such as how increasing household incomes can lead to greater economic gains or how limiting agriculture near ecologically sensitive areas results in environmental gains are also significant at the operational level. The same is true for policy means that address these various goals, as they stem from ideas about what has worked and what has not.

Differentiating between these different types of ideas in terms of their degree of abstraction and their normative appeal is thus an important step in understanding the reasoning that policy formulators apply when creating policy content (Campbell, 1998). In their work on the influence of ideas in foreign policy-making situations, Goldstein and Keohane (1993) and their colleagues noted at least three types of ideas that combined normative and cognitive elements but at different levels of generality: world views; principled beliefs; and causal ideas (see also Braun, 1999; Campbell, 1998). World views or ideologies have long been recognized as helping people make sense of complex realities by identifying general policy problems and the motivations of actors involved in politics and policy. These sets of ideas, however, tend to be very diffuse and do not easily translate into specific views on particular policy problems.

Principled beliefs and causal stories, on the other hand, can exercise a much more direct influence on the recognition of policy problems and on policy content. These ideas

Table 1.3   Ideational components of policy contents

		Level of policy debate affected	
		Background	Foreground
Level of ideas affected	Normative (Value) Cognitive (Causal)	Public sentiments Policy paradigms	Symbolic frames Programme ideas

Source: Howlett (2014), adapted from Campbell (1998).

can influence policy-making by serving as 'road maps' for action, defining problems, affecting the strategic interactions between policy actors, and constraining the range of policy options that are proposed (Carstensen, 2010; Stone, 1989, 1998). At the micro level, 'causal stories' and beliefs about the behaviour patterns of target groups heavily influence choices of policy settings or calibrations (Schneider & Ingram, 1993, 1994; Stone, 1989).

As laid out in Table 1.3, ideas stemming from public sentiments or symbolic frames appeal to the perception of appropriateness or 'legitimacy' of a certain policy choice and are largely expected to affect policy goals (Durr, 1993; Stimson, 1991; Stimson et al., 1995; Suzuki, 1992). On the other hand, policy paradigms indicate 'a set of cognitive background assumptions that constrain action by limiting the range of alternatives that policy-making elites are likely to perceive as useful and worth considering' (Campbell, 2002, p. 35; see also Surel, 2000). Programme ideas similarly represent a selection of particular solutions from the set of options that are designated as being appropriate within a prevailing policy paradigm. Paradigms and programme ideas thus influence the selection of policy means (Hall, 1993; Stone, 1989).

The contributions of Part V of this Handbook examine these issues of policy-level ideas and the framing of issues as problems. Chapter 17 by May, Koski and Stramp explores the impact of policy expertise during policy formulation and identifies a small group of 'go-to' experts whose ideas carry an outsize weight in many areas of policy deliberations in the United States. Zito in Chapter 18 highlights the role of expert networks and epistemic communities in articulating knowledge while Schneider and Ingram, in Chapter 19, explore the impact that ideas about the nature and motivations of policy targets (those members of society whose behaviour the policy is meant to address) have on policy formulation. Gunter (Chapter 20) looks into the role of consultants and the ideas they bring to the formulation process.

THE ARTICULATION OF SOLUTIONS: KEY ACTORS IN POLICY FORMULATION

Part VI of the Handbook then looks specifically at what factors influence the development and articulation of some policy solutions rather than others. Simons and Voß in Chapter 21 discuss the role of instrument constituencies involved in framing and forwarding particular policy solutions during formulation. In Chapter 22, McGann looks at the role of think tanks, academics and research institutes during the formulation of policy

options, while institutional isomorphism, or the penchant for governments to mimic each other, sometimes with reason and sometimes without, is critically reviewed by Jarvis in Chapter 23.

In many formulation situations, general abstract policy aims and implementation preferences are taken as given, establishing the context in which design decisions relating to programme-level and on-the-ground specifications are made by policy insiders and core actors. And in many cases, even the goal components of programmes may be already established, leaving the formulator only the task of establishing specific policy tool calibrations which must cohere with these already existing or well-established policy elements. Galizzi in Chapter 24 explores the behavioural aspects of this kind of policy formulation through a review of the use of experiments and behavioural insights such as 'nudges' that affect the reception of policy initiatives on the ground by target groups and individuals.

FORMULATION IN SPACE AND TIME: THE IMPORTANCE OF CONTEXT AND INFLUENCE

In general, it is understood that policy formulation takes place within present day governance structures that have their own existing policy logic. In order to address these issues, it is recognized that policy-makers need to be cognizant about the internal mechanisms of their polity and constituent policy sectors (Braathen, 2007; Braathen & Croci, 2005; Grant, 2010; Skodvin et al., 2010). The amount of 'elbow room' or 'degrees of freedom' that formulators have in a given formulation context heavily impacts how formulation activities proceed. Where earlier work on formulation and design often assumed that policy-makers were operating with a constrained yet blank slate, modern thinking about policy design is more rooted in empirical experience that policy designers work in scenarios with already established policy mixes and significant policy histories. This work draws on historical and sociological neo-institutionalists such as Kathleen Thelen (2004; Thelen et al., 2003), who noted how macro-institutional arrangements have normally not been the product of calculated planning but rather the result of processes of incremental modifications or reformulations such as 'layering' or 'drift'.

That is, legacies from earlier rounds of decision-making affect the introduction of new elements that may conflict with pre-existing policy components. As Martin Carstensen has argued, policies may change through gradual processes and are often created much less through systematic reflection on (practice-derived) first principles than through a process of bricolage (Carstensen, 2015).

Contributions to Part VII of the Handbook look more closely at the situational anomalies and their politics that can influence the contexts within which formulation takes place. Although new or different policy instrument groupings could theoretically be more complementary and thus create a more successful combination of policy elements (Barnett & Shore, 2009; Blonz et al., 2008; Buckman & Diesendorf, 2010; del Río, 2010; Grabosky, 1994; Gunningham et al., 1998; Hou & Brewer, 2010; Howlett, 2004; Howlett & Rayner, 2007; Roch et al., 2010), it may be very difficult to accomplish or even propose such changes, and designs instead often focus on reform rather than replacement of an existing arrangement. Bricolage can ensue through the work of policy formulators as irregularities emerge through the accumulation of new policy elements that are conflicting with original

policy goals (Wilder & Howlett, 2014). Wilder in Chapter 25 explores these dynamics between the accrual of conflicts and a continual process of bricolage that can dominate formulation.

The contextual 'lock in' that leads to layering thus can impact the formulation process by restricting a government's ability to evaluate alternatives and plan or design in a purely optimal instrumental manner (Howlett, 2009; Oliphant & Howlett, 2010; Williams, 2012). Layering thus typically results in processes of (re)design which alter only some aspects of a pre-existing arrangement and can thus be distinguished from processes of new policy packaging or complete replacement. While complete replacement or a brand new 'package' of policies is rare, there are exceptionally rare instances whereby entirely dedicated, or 'bespoke', policy packages are created to address an unprecedented policy problem. Customization of policy might be somewhat more common as a means for a new, multi-dimensional policy problem by adapting lessons from other similar policy contexts.

Another type of policy adaptation is 'patching', which can be done well if governments possess sufficient capacity but poorly if they do not. An example of poor patching is policy 'stretching' (Feindt & Flynn, 2009). This is where, operating over periods of decades or more, elements of a mix are simply extended to cover areas they were not intended to at the outset. Stretching is especially problematic as small changes in the mixture of policy elements over such a time period can create a situation where the elements can fail to be mutually supportive, incorporating contradictory goals or instruments whose combination creates perverse incentives that frustrate initial policy goals. When these problems are identified, further rounds of tinkering and layering may make them worse (Feindt & Flynn, 2009). Jorgensen, in his discussion of the politics of policy formulation in Chapter 26, adds to the discussion about problematic layering by going beyond the topic of a government's ability to design, to a critical evaluation of government willingness to design.

Layering as a formulation process can thus have two sides. On the one hand, negative stretching or destructive layering exacerbates tensions between regime elements and more politicized or less instrumental forms of policy-making and outcomes. However, layering can also have a positive side and help ameliorate or reduce tensions through 'smart'-patching. Stretching and poor patching are thus formulation practices that exist at the break point between design and non-design activities of government. Both these processes fall between the 'pure' design and 'pure' non-design ends of the spectrum of design processes suggested in Figure 1.1.

Non-design types of policy formulation also vary in the same way as partisan and ideological, religious or other criteria cloud, crowd out or replace instrumental design intentionality. Non-design mechanisms, as highlighted above, include activities such as bargaining or log-rolling, through corruption or co-optation efforts, or faith-based or pure electoral calculations that are not instrumental in the same sense as are design efforts. In such contexts, the ability to meet policy goals or the means to achieve them are secondary to other concerns such as ideological purity, the need to retain or augment legislative or electoral support, or other similar kinds of coalition behaviour.

Highlighting these different processes of formulation, the other two contributors to Part VII of the Handbook address several related issues. In Chapter 27, Eichbaum and Shaw shed light on the increasing impact of political parties and political staff on policy
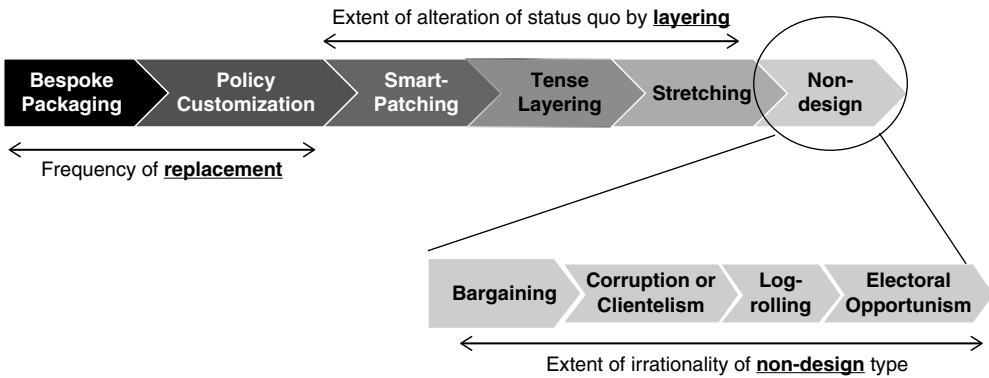
Figure 1.1   A spectrum of policy design and non-design types

formulation in many countries, adding to the complexity of formulation processes. In Chapter 28, Scott addresses questions about the actual mechanisms of influence that interest groups and lobbyists employ during formulation.

CONCLUDING COMMENTS

In bringing to life policy solutions to address complex policy problems, formulation is the result of various processes of policy evolution that are shaped by time as well as a government's intention towards creating policy. These policy-making efforts can be systematic in attempting to match policy ends and means in a logical, knowledge-informed fashion, or they can result from much less systematic and more irrational processes. How 'unintended' policy mixes evolve, are created and limited by historical legacies, and are hampered due to internal inconsistencies are equally subjects of investigation in formulation studies as are the factors which lead to formulation and policy success (del Río, 2010; Grabosky, 1994; Gunningham et al., 1998; Howlett & Rayner, 2007).

Transforming policy ambitions into practice is a complex process. While formulation efforts can be done well or poorly, they reflect some wholesale or partial effort to match policy goals and means in a sophisticated way to improve outcomes. Non-design types of formulation also vary in the same way but more by process of decision-making than by their sphere of activity. The efforts of policy-makers often have failed due to poor designs that have inadequately incorporated the inherent complexity in policy formulation (Cohn, 2004; Howlett, 2011a). These experiences have led to a greater awareness of the various obstacles to policy design and have gradually fuelled a desire for a better understanding of the unique characteristics of policy formulation processes and the spaces in which design efforts are embedded.

While early formulation and design thinking tended to suggest that the creation of instruments could only occur in spaces where new policy packages could be designed from scratch, it is now widely recognized that in most circumstances policy formulation

involves building on the foundations created in another era and working with the constraints they pose. Students of policy formulation are thus interested in how policy formulators, like software designers, can issue 'patches' in order to correct flaws in existing mixes or allow them to adapt to changing circumstances (Howlett, 2011a; Howlett & Rayner, 2014; Rayner, 2013). In this context, subjects such as policy experiments that can help to examine the possibilities of redesign (Hoffmann, 2011) and building temporal properties into tool mixes through adaptive policy-making (Swanson et al., 2010), which can make policy mixes more flexible or resistant to shifting conditions (Haasnoot et al., 2013; Walker et al., 2010) are all subjects of interest in contemporary formulation studies.

Some of the major trends and patterns in policy formulation studies related to these issues are picked up in the last part of this Handbook. Craft and Howlett's chapter (Chapter 29) looks at developments in the realm of policy advisory systems and the inclination towards greater externalization and politicization of policy advice. Strassheim, in Chapter 30, reviews the movement towards experience-based versus evidence-based policy-making. In Chapter 31, Linders and Ma discuss the changing role of the public in policy formulation through an exploration of changes brought on by new mass and social media. Maor's chapter (Chapter 32) concludes the collection with an analysis of the proportionality of government responses, looking specifically at the reasons behind under- and over-reaction in the formulation of policy options in the short and long term.

Portrayed in this Handbook is the very essence of policy-making activity: the articulation of policy goals, the presentation of policy alternatives and the choice of policy tools. The contributions in this collection provide a multi-dimensional understanding of policy formulation, and a deeper exploration of what formulation activity entails, how the formulation process unfolds, who influences and who formulates policy, and what are their incentives.

NOTE

1.   A full bibliography of policy design publications is available through the Policy Design Lab and Policy Tools Wiki. http://policy-design.org/wiki/towards-a-new-generation-of-policy-design-studies/further-readings/footnotes/full-bibliography/ (accessed 2 November 2016).

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2. The central conundrums of policy formulation: ill-structured problems and uncertainty
Sreeja Nair and Michael Howlett

INTRODUCTION: ILL-STRUCTURED POLICY PROBLEMS AND THE CHARACTERIZATION OF UNCERTAINTY

The concept of uncertainty has been widely interpreted and studied in diverse disciplines that influence public policy. These include the physical sciences, social sciences, mathematical sciences, engineering, economics, philosophy and psychology. The theoretical basis, historical context, relevance, and tools and methods for addressing uncertainty are thus often grounded within specific discourses originating in different disciplines (Walker et al., 2012).

Historically, policy scholars studying problem solving in policymaking – such as Churchman (1967), Rittel and Webber (1973) and Simon (1973) – typically thought about uncertainty in a purely 'objective' sense – that is, whether the problem's causes and solutions were known or unknown. Bivariate concepts of 'wicked' and 'tame' or 'well-structured' and 'ill-structured' problem contexts introduced by these authors have dominated thinking in the area. These, however, form only part of a larger group of policy problems that become intractable owing to several kinds of uncertainties. An ill-structured problem in this sense is one 'whose structure lacks definition in some respect' (Simon, 1973, p. 181). 'Wicked' problems can be considered to comprise a subset of ill-structured problems, generally characterized by lack of agreement regarding the nature of the problem as well as potential solutions (Rittel & Webber, 1973). A major challenge in formulating strategies to deal effectively with uncertainty has been the inadequacy of various schemes and models used to classify different levels and types of uncertainty and to assess their impacts. A seminal paper by Knight (1921) addressed ill-structured problems, usefully distinguishing between uncertain futures in which there is a reasonably quantifiable probability distribution (Knightian risk) and those in which there is not and such distributions are unknown (Knightian uncertainty).

Morgan and Henrion (1990) in an oft-cited text underscored the importance of properly classifying the types and sources of uncertainty in policymaking so that they can be effectively addressed. They argued against Knight that a classification of uncertainty as centered on known/unknown probability makes it difficult to proceed from analysis to 'real-world decision-making'. Instead, they argued for a subjectivist or Bayesian approach which classified uncertainty in terms of the different kinds of sources from which it can arise. This includes statistical variation owing to random measurement errors, 'linguistic imprecision' (that is, cases where the quantities being studied or measured are not well specified or characterized), variations over time and space, randomness, subjective judgement, disagreement between experts, and differences between the real and approximated value of the quantity (Morgan & Henrion, 1990). This analysis was useful in noting that while uncertainty often arises due to imperfect information, including wrong information

or missing information, all existing information is also prone to ambiguity – including multiple interpretations and diverse perspectives (Jones & Baumgartner, 2005). Uncertainties surrounding the choice of policy options and their consequences, and levels of confidence regarding available information and values of multiple stakeholders (including decision-makers) are also significant (Hansson, 1996).

While Morgan and Henrion's classification focused on uncertainty in quantitative policy analysis, Koppenjan and Klijn (2004) extended this analysis further in presenting a classification focused on the interactions among actors and knowledge (or information)-related uncertainty needed to resolve complex policy problems. Some of these uncertainties overlap with the analysis of Morgan and Henrion, for example, those related to decision variables and value parameters and related uncertainties. Koppenjan and Klijn's classification, however, also includes: (1) substantive uncertainty that arises due to a lack of relevant information related to the nature of the complex problem, or the different interpretations of information coming from different 'frames of reference' of the social actors; (2) strategic uncertainty that arises due to the unpredictability of strategies deployed by different actors based on their perception of the problem and strategies likely to be deployed by other actors; and (3) institutional uncertainty that arises owing to the complexity of interaction of different actors guided by institutional frameworks (that is, rules and procedures of the organizations they represent). Similarly, Brugnach et al. (2008) present uncertainty as involving an object(s) of perception or knowledge, various actors including the decision-maker, and the relationships that bind the object(s) and the actors. They consider ambiguity as uncertainty of a third kind, separate from the uncertainty inherent in a system (ontological uncertainty) and that arising due to lack of knowledge (epistemic uncertainty).

Both kind of uncertainty affect policymaking at both the level of objective knowledge of problems as well as at the level of the relative nature of decision-makers' knowledge of that 'knowledge base'. The 'wicked' problem space, again, can be seen in this view to itself be a superset of several other interconnected problems spanning multiple policy domains and levels of government, and requiring a high degree of deliberation and cooperation for effective problem solving (Jentoft & Chuenpagdee, 2009).

In addition, such problems are also 'relentless', that is, they are not typically able to be solved permanently, thus making it important to ensure a 'continuous transfer, receipt and integration of knowledge' over time (Weber & Khademian, 2008, p. 336). Such problems rank high in terms of their complexity, uncertainty regarding problem characteristics and solutions, and divergence of perspectives (Head, 2008; Table 2.1).

Usefully synthesizing these approaches, Walker et al. (2010) identify five policy-relevant

Table 2.1   Characteristics of wicked problems
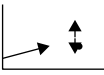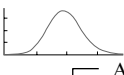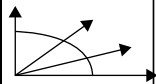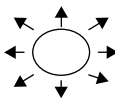
	Degrees of difficulty		
Complexity of elements, sub-systems and interdependencies	Low	Moderate	High
Uncertainty in relation to risks, consequences of action and changing patterns	Low	Moderate	High
Divergence and fragmentation in viewpoints, values, strategic intentions	Low	Moderate	High

Source: Modified from Head (2008).

levels of uncertainty. These include the 'Level I' 'shallow' or parameter uncertainties where alternative states of a system within specific probabilities exist but in some scenarios may be well known and established. Policy problems characterized by parameter uncertainty are not very difficult problems to handle – at least in theory – and are likely to be resolvable by standard treatments.

These can be distinguished from 'Level II' medium or fuzzy uncertainty, where multiple alternatives exist within a specific scenario but can be ranked based on the 'perceived likelihood' of their occurrence. 'Level III' situations are then those where different possible overall scenarios exist but these can still be ranked in terms of their likelihood. 'Level IV' uncertainty represents a more complex form of Level III uncertainty in which multiple plausible alternative scenarios exist but cannot be ranked in terms of their perceived likelihood. Finally, in the most complex 'Level V' situations, it is not feasible to present or agree upon a full range of alternative scenarios and there is a very real 'possibility of being surprised' by events occurring outside of normal boundary conditions and solutions (Walker et al., 2013a; Figure 2.1).

This multi-level model is useful because it allows for the identification of policy

		Level I	Level II	Level III	Level IV	Level V	
	Context	A clear enough future (with sensitivity)	Alternate futures (with probabilities)	Alternate futures (with ranking)	A multiplicity of plausible futures (unranked)	Unknown future	
Complete certainty	System model	A single system model	A single system model with a probabilistic parameterization	Several system models, one of which is most likely	Several system models, with different structures	Unknown system model; know we don't know	Total ignorance
	System outcomes	Point estimates with sensitivity	Several sets of point estimates with confidence intervals, with a probability attached to each set	Several sets of point estimates, ranked according to their perceived likelihood	A known range of outcomes	Unknown outcomes; know we don't know	
	Weights on outcomes	A single estimate of the weights	Several sets of weights, with a probability attached to each set	Several sets of weights, ranked according to their perceived likelihood	A known range of weights	Unknown weights; know we don't know	

Source: Walker et al. (2013a).

Figure 2.1   Different levels and orders of uncertainty

responses that can effectively 'adapt' to match with the rate and level of current as well as projected uncertainty in policy environments and impacts. Level I and II problems, for example, as noted above, can be anticipated and factored into predictions of future events and trajectories. Level III problems are more complex, as different alternative scenarios are possible, a number of tools could be used in each scenario and the complexity of accurately forecasting changes over time (Taeihagh et al., 2013), but can still be dealt with reasonably efficaciously.

The final two situations of multiple, contested scenarios, however, fall into a category that Walker et al. (2001) refer to as 'deep' uncertainty. These are the worst-case problems with multiple perspectives regarding the nature of the issue or problem at hand as well as multiple potential solutions whose prospects for success are unknown (Rittel & Webber, 1973). As Maxim and van der Sluijs (2011) note, for example, most policy typologies are focused on the 'producer' of information and ignore uncertainty related to process and communication between the producer and the end-user (that is, the decision-maker). These uncertainties can relate to 'qualification of the knowledge base' or the degree of agreement upon or the absolute size of the evidentiary support for models. Uncertainties can also arise owing to the 'value-ladenness' of policy choices, which includes different actor perspectives on the value of the knowledge and information being utilized for decision-making and arguments concerning preferred policy alternatives pathways (Mathijssen et al., 2008).[1]

Both of these types of uncertainty are well beyond calculations of risk and involve a much higher ratio of ignorance and ambiguity, requiring a very different type of policy response and design (Stirling, 2010), ones which incorporate the real possibility of surprise into actions which embody possibilities for flexibility, adaptiveness and change.

Becker and Brownson (1964) argue that even at a relatively simple level, when knowledge is available on a subject, policymakers may not be aware of it and thus may undertake decision-making on the basis of uninformed ignorance rather than informed awareness. This tendency is worsened when collective or absolute knowledge of a subject or phenomenon is not as readily available. Decision-makers may be aware of this gap and function with an attitude of prudent awareness or, when they are unaware of their ignorance, with a hubristic attitude or over-confidence (Table 2.2).

UNCERTAINTY AND CHALLENGES TO POLICY FORMULATION

All of these kinds of ill-structured problems have been studied in the context of various policy issues. Recent studies, for example, have dealt with policies pertaining to environmental health (Kreuter et al., 2004), development of genetically modified foods (Durant & Legge, 2006), fisheries and coastal governance (Jentoft & Chuenpagdee, 2009), organizational learning (Crul, 2014), educational research (Jordan et al., 2014) and global environmental issues such as climate change.

Levin et al. (2012) argue that problems such as climate change have certain problematic features which illustrate a special class of 'super-wicked problems'. These include, firstly, that as action towards addressing a problem (climate change in this case) is delayed, it gets more difficult to solve; secondly, that the problem is exacerbated since those

Table 2.2   Policymakers' knowledge and comprehension matrix

		Nature of existing collective knowledge of a phenomenon	
		Aspects of a problem and possible solutions are known	Aspects are unknown
Nature of decision-makers' awareness of existing knowledge of a phenomenon	Aware	Known-Known: Key policy actors are aware of the known aspects of a phenomena (INFORMED AWARENESS)	Known-Unknown: Key policy actors are aware that certain aspects of the phenomenon are unknown (PRUDENT AWARENESS)
	Ignorant	Unknown-Known: Key policy actors are unaware of known aspects of a phenomenon (UNINFORMED IGNORANCE)	Unknown-Unknown: Key policy actors are unaware that certain aspects of the phenomenon are unknown (IMPRUDENT IGNORANCE)

Source: Based on Becker and Brownson (1964).

responsible for causing the problem and who possess the means to solve it lack any clear incentive to act; and thirdly, that there is no legal institutional framework to sufficiently address the impacts of a problem such as climate change spread over time and geographic scales.

This is a good case to illustrate the many policy-relevant problems associated with this level of uncertainty. For example, uncertainty in climate assessments can emerge for a number of reasons: lack of data or lack of agreement on results; choice of statistical methods; error of measurement; use of approximations; subjectivity in judgement; uncertainty in human behaviour; errors in model structure; errors in values of parameters; changes in parameters from historical values; differences in concepts and terminology; choice of spatial/temporal units; and assumptions taken. In climate projections and impact assessments, uncertainty gathers and often magnifies through a 'cascade of uncertainty' or an 'uncertainty explosion' (Schneider & Kuntz-Duriseti, 2002). This refers to the process whereby uncertainty accumulates throughout the process of climate change projections and impact assessment. The cascade also implies that in a causal chain such as climate impact assessments, the characteristics of the aggregate distribution might be very different from the individual components themselves.

Additionally, climate change is a global phenomenon with local impacts, and there is a time delay when these impacts are manifested (Schneider & Kuntz-Duriseti, 2002). And apart from empirical and methodological challenges, there may be uncertainty owing to institutional barriers for garnering consensus, combining expert judgement and integrating multiple perspectives (Webster, 2003).

Dealing with such high levels of uncertainties requires a different kind of policy than might be adopted when only lower level issues exist. The focus of policy design under low levels of uncertainty, on the other hand, is to either reduce uncertainty where possible or,

in other cases, to assess the range of uncertainty and then identify policy measures that are expected to be 'robust' within this range (Bredenhoff-Bijlsma, 2010).

Day and Klein (1989) suggest that while most government policies are crafted in response to events that are 'reasonably predictable', policy events at higher levels of uncertainty can also be: (1) unpredictable, 'unforeseen' and 'unprojectable'; (2) catastrophic; and (3) where the interpretation of uncertainty signals is convoluted because of associated moral and social issues.[2] As an example of the third category, Day and Klein (1989) discuss the spread of AIDS in Britain in the 1980s. In the specific case of strategies designed to reduce vulnerability to climate risks, policies that do not consider the existence of the diversity of risks, impacts and responses in a system can end up as 'policy misfits' (Bunce et al., 2010) or may become counter-intuitive or 'maladaptive' as they increase risks in the long run (Barnett & O'Neill, 2011). That is, if environmental degradation and change lead to certain 'thresholds' being crossed, current policy responses may not be as effective (Kwadijk et al., 2010).

Under conditions of deep uncertainty, policies should be prepared to deal with worst-case scenarios, allow for quick recovery and be ready for potential reforms in policy design (Walker et al., 2010). On climate change, for example, Smith et al. (2010) argue that current decision-making on adapting to the impacts of climate change focuses on 'adjustments' to current activities, leaving the possibility of a potential transformation in social and political regimes largely unaddressed (Pelling, 2011; Smith et al., 2010). If policymakers assume that certain policy choices are 'no-harm' or 'no-regret' in the short term, they may overlook their possible adverse (sometimes irreversible) effects in the long run and thus delay timely preventive action. Policymakers must learn to recognize early warnings or changes, especially as new knowledge emerges (European Environment Agency, 2001).

However, adequate reflection of on-the-ground realities remains a key concern; for example, a lack of awareness on climate change issues among decision-makers can lead them to rely on a largely expert-driven approach for climate change adaptation planning that may not reflect reality (Bisaro et al., 2010). The World Resources Report (2011) highlights the need for decision-making under uncertainty to be flexible to accommodate conditions of change, robust to withstand multiple future scenarios, and/or enable decisions to withstand long-term change.

Hallegatte et al. (2012) argue that it is difficult to define a 'best solution' for climate change and other deep uncertainties, and instead suggest that 'a menu of methodologies' (p. 36) and tools is needed, together with some indications on which strategies are most appropriate in which contexts. The idea of 'policy packaging' is gaining attention in this area as implementing a combination of measures (rather than individual ones) or 'policy bundling' can enhance synergies and reduce inconsistencies among the measures (Howlett & Rayner, 2013; Taeihagh et al., 2013).

However, how to arrive at such policy mixes is an issue for formulators and requires complex implementation and formulation technologies. Conventional forecasting methods like Monte Carlo simulations and other kinds of statistical analyses, for example, can cover low levels of uncertainty or parameter uncertainty by providing likelihood estimates and probabilities (Brugnach et al., 2008; Walker et al., 2010). However, unexpected events or 'wild-cards' (Wardekker et al., 2010) can still impact policymaking and have significant social and political implications.

DEALING WITH UNCERTAINTY IN POLICY FORMULATION

Failure to address 'deep uncertainty' hampers the effectiveness of policies designed for the long term (Lempert et al., 2003). Both top-down and bottom-up methods have different strengths and weaknesses in dealing with such situations (Dessai & van der Sluijs, 2007). Decision theory also provides useful tools for decision-making when the information base is sufficient, but these tools may not be as robust when there are uncertainties, including information gaps. Such tools may be combined with other methods such as scenario planning (Polasky et al., 2011) or threshold approaches considering critical limits beyond which policy effectiveness can cease (Kwadijk et al., 2010) – especially useful in cases where crossing such thresholds can have long-term, irreversible consequences (World Resources Report, 2011).

Eckles and Schaffner (2011) also argue that public opinion plays a role in affecting policy outcomes and knowledge of uncertainty and risks, in turn, are important in forming public opinion. Based on a model for uncertainty management, Herian et al. (2012) found that using public perceptions on policy planning to inform government initiatives, such as budgetary planning, can enhance public support for the government and its decisions under uncertainty.

For long-term policies, including environmental issues such as climate change, policymakers also grapple with uncertainties in the policy formulation stage owing to an incomplete understanding of the biophysical and social systems affecting and being affected by the environmental processes. This incomplete knowledge may lead to an overestimation or underestimation of the policy problem. This is a major problem in relation to investments, for example. In order to boost investment in innovative environmental technology, policymakers often have to ensure and/or create a 'stable' facilitating environment for such innovation to occur and dispel investor concerns pertaining to the risks of failure that are associated with innovations (Janicke & Jorgens, 2000).

Uncertainty also relates to the problem definition, nature and extent of the problem, and the extent to which policymakers are dependent on scientific information to formulate the policy (Brown, 2000). Problems that are likely to manifest themselves fully only in the future call for alternative mechanisms for agenda setting and policy formulation. In such cases an appropriate measure to deal with uncertainty is to facilitate learning over time, as and when new knowledge regarding the policy problem becomes available. This is a central characteristic of 'open, flexible and adaptive institutional environments', which further depend on the nature of the governmental regime (Arentsen et al., 2000).

The next subsections present three approaches that have been found to resonate with policy scholars and practitioners alike in dealing with different levels of uncertainty in policy formulation: adaptive policymaking, strategic foresight and policy experimentation.

Adaptive Policymaking

The concept of adaptive policies dates back to John Dewey's (1927) proposition that 'policies be treated as experiments, with the aim of promoting continual learning and adaptation in response to experience over time'. One of the most cited pieces on policy uncertainty in the last decade has been that of Walker et al. (2001), which presents a spectrum of uncertainty moving from determinism to total ignorance. Adaptive policymaking is a model specifically suited to higher-level problems.
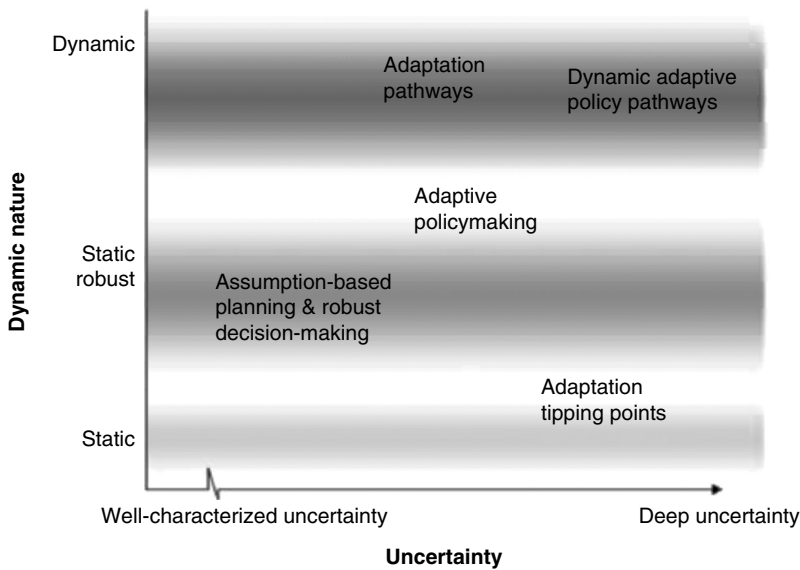
Figure 2.2   Approaches for developing adaptive policies

That is, conventional forecasting methods such as Monte Carlo simulations and quantitative methods using statistical analyses are not adequately equipped to deal with such situations (Brugnach et al., 2008; Walker et al., 2010). Walker et al. (2013b) thus map the possible approaches towards adaptive planning (Figure 2.2) based on their dynamics – that is, the degree to which they vary over time – and on the level of uncertainty. The level of uncertainty can range from low to deep uncertainty, as identified in Walker et al. (2001). The dynamic nature of adaptive policies is represented on the y-axis in Figure 2.2, moving from static (indicating that changes over time are not considered in policy functioning), to static robust (indicating that changes or adaptation in the policy are anticipatory in nature) to dynamic (indicating that adaptation of policy can be anticipatory, simultaneous and reactive (*ex post*) over time).

The various approaches highlighted in Figure 2.2 include:

- Assumption-based planning which aims at planning to protect an existing plan from failure in the event that any of the key assumptions of the plan were to change.
- Robust decision-making which can be used to develop a new static plan that is robust, that is, functions well across a range of plausible futures.
- Adaptive policymaking which focuses on monitoring and adapting to changes over time to prevent the static plan from failure (thus 'static robust').
- Adaptation tipping points is a static approach that helps identify the conditions and time frame beyond which current policies/plans do not continue to function effectively.

- Adaptation pathways is a dynamic extension of the adaptation tipping point approach that generates an alternate route for continuation of the policy/plan in a new form to achieve the initial intended objectives.
- Dynamic adaptive policy pathways combine the adaptation pathways and adaptive policymaking approaches to identify alternative options over time across a range of plausible futures.

The central objective of these planning approaches is to avoid failure. By deploying these approaches, policymakers to some extent accept the 'irreducible character' of future uncertainties and aim to reduce uncertainty about policy performance despite these uncertainties. Many of these approaches are supported by computer models which may be unavailable or impractical in developing country contexts – for example, robust decision-making, which relies heavily on computer runs. There are some quicker and simpler policy models that could also be deployed if the policymakers believe it's better to be 'roughly right than precisely wrong' (Walker et al., 2013b, p. 972).

Drawing a parallel between evolutionary biology and policies for sustainable development (both operating under conditions of change), Rammel and van den Bergh (2003) argue that 'every successful adaptation is only a temporary "solution"' to changing conditions and that diversity of adaptation options and flexibility to deploy these options can contribute to long-term stability. The discussion of adaptive policies is also pertinent to issues that face natural variations, for example, management of fisheries, which is prone to natural cyclical patterns as well as uncertainty related to harvesting. The adaptive policymaking process in such cases can be passive (that is, operating on available 'best' scientific information until new knowledge emerges) or active (that is, consciously experimenting with policy alternatives to identify better strategies as new conditions emerge) (Walter, 1992).

In recent years, adaptive policies have been discussed widely in the context of decisions for long-term infrastructure planning and climate change (Buurman et al., 2009; Gersonius et al., 2013; Giordano, 2012; Ranger et al., 2013). These research papers explore the impacts of climate change on long-lived infrastructure and the influence of uncertainties on infrastructure policies and plans. Giordano (2012) highlights the importance of introducing flexibility and adaptiveness from the initial stage of planning. Similar to the adaptive policymaking concept, policies that are designed to be 'robust across a range of plausible futures' are preferred in this context rather than those aimed at being 'optimal', as they can respond to changes over time and accommodate learning in this process. The adaptive policy approach can also be applied in the case of transboundary air pollution, which is a complex policy issue with uncertainties related to the long-range forecasting of emissions, economic costs of abatement and political concerns (Kelly & Volleburgh, 2012).

Swanson and Bhadwal (2009) present seven tools that can be used to design adaptive policies that can deal with a range of anticipated and unanticipated future conditions. For example, adaptive policies can anticipate future conditions using:

1. Integrated and forward-looking analysis, including scenario planning.
2. Multi-stakeholder deliberation to identify potential drawbacks and unintended impacts.
3. Monitoring key performance indicators to activate automatic policy adjustments.

In addition, adaptive policies can function effectively when faced with unanticipated conditions through:

4. Regular and systematic policy review and improvement.
5. Enabling self-organizing and social networking in communities.
6. Decentralizing decision-making to the lowest accountable unit of governance.
7. Promoting variation in policy responses.

However, there is little evidence or detailed guidance on the operationalization of these tools.

There are a number of institutional challenges in actually implementing these policies primarily owing to the increased costs and time needed for adaptive policies as compared to 'traditional static approaches'. This makes it difficult for policy practitioners to justify such adaptive policies, even if the benefits might offset the costs in the long run. In addition, the complex nature of the adaptive policy product also makes it difficult for a policymaker to present or defend. As a result, its uptake and usability is rather limited as compared to conventional straightforward policy planning approaches. Additionally, robust and adaptive policies might require significant changes to the original policy design, which may not be politically or socially desirable.

Van der Pas et al. (2012) also draw attention to the need to evaluate adaptive policymaking, which could differ based on the criteria for evaluation and whether the evaluation is of the plan itself, the process of drafting the plan or the product, that is, the outcomes of the plan.

Strategic Foresight

Strategic foresight is one of the ways 'to broaden the boundaries of perception and to expand the awareness of emerging issues and situations' in medium levels of uncertainty (Major et al., 2001, p. 93). Strategic foresight attempts to integrate multiple perspectives and methods to identify current and emerging issues and trends and help assess policy options for attaining a desired future. Based on experiences from the United Kingdom, Singapore and the Netherlands, for example, Habegger (2010) identifies a number of elements of successful foresight exercises. These include having a scientific edge in specific foresight methods and processes, allowing for innovation, fostering iterative interactions between stakeholders, and obtaining the trust and support of top bureaucrats to support the idea of exploring futures that may be quite different from present conditions.

Foresight can be instrumental for environmental planning, for example, by providing insights about a range of futures of social-ecological systems and critical thresholds, and thus aid in anticipatory planning to avoid adverse impacts (Bengston et al., 2012). It can also inform policy by enhancing the knowledge base for policy design. This can be done by 'increasing the bandwidth' to allow a greater volume of information to be shared with policymakers; 'optimizing the signal', that is, improving foresight content by ensuring better quality, relevance, usability and timing of foresight studies; and 'improving reception', that is, enhancing the receptivity of policymakers for foresight (Da Costa et al., 2008). Given the short-term focus of many policy cycles, foresight can also help in identifying current policy gaps to deal with longer-term issues such as climate change.

Foresight may also be used as a signalling device by policymakers to indicate to the public that they are using objective scientific processes in making policies. Under conditions where policymakers are hesitant to openly share their policy strategies, foresight may help to engage citizens in a shared vision process via instruments such as transition management (Da Costa et al., 2008; Loorbach & Rotmans, 2010).

Policy Experimentation, Including Pilots

Policy experimentation is a predictive tool deployed by various agencies, including the government, to pre-test different programmes and policies for their likely impacts, process of implementation and stakeholder acceptability in advance of launching them at a larger scale. Experimental projects are generally small-scale, highly exploratory 'risky ventures' whose benefits are often realized through the 'acquisition of knowledge' (Rondinelli, 1993) and are well suited to dealing with lower levels of uncertainty. Through knowledge acquisition and with experience, policy experiments can help reduce uncertainty and aid decision-making for the future (Cooney & Lang, 2007). The goal of policy experiments is to get an indication of the outputs, outcomes and challenges that can be expected when these programmes and policies are implemented fully.

Policy pilots are a common and important form of policy experimentation and are instrumental for evaluating new programmes at a 'controlled small scale' before introducing them as full-scale programmes (Weiss, 1975). Policy pilots can be used to test the likely effects of new policies and their early outcomes (impact pilots), or to explore the implications of specific ways of implementing a policy, or assess the best methods of delivery (process pilots) (Cabinet Office, 2003). Pilots can thus aid in policy appraisal (Turnpenny et al., 2009) and provide useful insights for dealing with complex policy issues and high uncertainty (Vreugdenhil et al., 2010).[3]

Experiments have helped policymakers diversify their policy responses and thus spread risks. Experiments have also been useful as a source of evidence for policymaking. Under high levels of uncertainty, societal change or transitions may be required, and these can be facilitated by experiments. Under conditions of uncertainty, experiments can help test the design, suitability and acceptability of plausible policy solutions. Policy designers, however, need to recognize the level of uncertainty in the policy environment and consider the role of continual monitoring and social learning over time. Towards this end, in recent years, the literature on experimentation has shifted its focus to the process of experimental policy design, including the role of various stakeholders, compared to the earlier focus on the content of the experiments itself (Van der Heijden, 2014). Also referred to as 'experimentalist governance', this new wave involves 'provisional goal setting' that is redefined in an iterative manner based on the learning from trying out alternate modes of goal achievement in different contexts (Sabel & Zeitlin, 2012).

While the benefits of policy experiments to address situations of uncertainty and ambiguity are many, there are also challenges in their application. The first set of challenges relates to the political aspects of experimentation in terms of the design, implementation and evaluation of pilots. At times, pilot projects may be used as tools to avoid conflict rather than enhance evidence-based policymaking. In addition, if pilots address issues that are politically contested, they may be delayed until more favourable political conditions ensue (Jann & Wegrich, 2007). A contrary situation may also exist: there can be

pressure to expedite evaluations to obtain timely 'positive' evidence to support certain decisions (Sanderson, 2002) or to rapidly scale up pilots once initial positive results are observed. This is problematic, however, for two reasons: firstly, it is important to ensure sufficient capacity to properly conduct and sustain a pilot (PHR, 2004) and secondly, initial results may need to be monitored to ensure that the positive results are sustained over time before moving to the scaling-up phase. Scholars have used results from laboratory and field experiments to provide policymakers and practitioners with evidence of the impacts of selected experimental interventions as well as their feasibility and acceptability by key stakeholders, including the intended beneficiaries. Behavioural variables at the level of the individual are thus key factors in influencing the overall outcomes of such policy experiments. While behaviour can be regulated to some extent with incentives, there are limits on how much local observations can indicate the overall success or failure of a scaled-up experiment.

The second set of challenges relates to the evaluation of policy experiments. Policy pilots are usually conducted as 'one-off evaluations' to measure success (Stoker & John, 2009). In sectors that are rapidly changing or for those projects with a longer gestation period between the start of a new experiment and the realization of its benefits, it may be necessary to conduct repeated evaluations over time (Cabinet Office, 2003).

The third set of challenges relates to the scaling up of experiments. Positive results from smaller-scale experiments may not be observed when the experiments are scaled up or applied in a different context (Simmons et al., 2007). The context dependency of pilots and related dynamics means that pilots may not accurately predict the impact of diffusing the project in a different context or scaling it up. In such cases, policy experiments should be considered as an early evaluation of how specific policies or programmes might work under certain conditions in certain settings.

CONCLUSIONS AND SCOPE FOR FUTURE RESEARCH

The historical context and theoretical background of treatment of uncertainty is a subject of some interest to policy scholars. Uncertainties broadly emanate from both the quantities considered in policy models and the structure of those models themselves. Policies can embody varying levels of uncertainty along this spectrum, from limited knowledge to deep uncertainty or 'unknown unknowns'.

As set out above, policy design under uncertainty is rather complicated in the case of wicked problems, such as climate change, that have no clear agreement on causes or solutions. As uncertainty rises, the level of knowledge about the system decreases, and this alters the suitability of policy solutions to address specific policy problems. Efforts to seamlessly integrate knowledge between the academic and policymaking communities are also impeded by the presence of different perspectives, timescales and vocabularies for concepts and processes, which make the transmission of knowledge difficult. A faulty policy design owing to uncertainty can further hamper the effective functioning of policies and the realization of intended policy goals and objectives.

For long-term policies that address complex and dynamic policy problems, there is a need to constantly monitor and evaluate whether the policies continue to meet their intended goals and objectives (Ramjerdi & Fearnley, 2013).

Adaptive policy-making, scenario forecasting and policy experiments hold immense potential to aid policy designers under uncertainty and ambiguity. Policy experiments can be used to test many policies that are being deployed to deal with complex policy issues and rapidly changing policy environments. Under normal conditions of uncertainty and ambiguity, policy experimentation offers three major contributions to policy formulation: promoting variation and diversification of risks; supporting evidence-based policymaking to prepare societies for transitions; and fostering social learning. Higher levels of problems, however, require alternative formulation aids, such as scenario analysis and adaptive policies.

NOTES

1. In tracing how uncertainty has been considered by policy scholars from the modern to post-modern era in the context of policy analysis and application, Bredenhoff-Bijlsma (2010) highlights that while modernism focused on the 'positivist' notion of using objective knowledge for policy analysis, post-modernism focused on the 'socially constructed nature of scientific knowledge' that emphasizes the role of actor interactions (an idea central to network theory).
2. The concept of 'surprise' or unexpected changes has largely been used in the ecological context (Lindenmayer et al., 2010), but offer little or no scope for the decision-maker to respond from history or experience (Lempert et al., 2003; Walker et al., 2010). Under such high levels of uncertainty, there is little agreement on the choice of variables that should be included in models and it is difficult to assign probability distributions to possible future scenarios with any confidence (Lempert et al., 2003; McInerney et al., 2011; Walker et al., 2010).
3. In the development sector, policy experiments are frequently used to assess alternative courses of action. These include (1) projects that focus on problem definition itself; (2) projects that focus on problems which are partly or wholly undefined; (3) projects that explore the most effective way of achieving pre-set policy goals; (4) projects that aim to identify gaps and barriers in situations where problems and goals are already well known; and (5) natural experiments that occur over a period of time without conscious intervention (Rondinelli, 1993).

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3. Policy formulation as policy work: developing options for government
Martin Nekola and Jan Kohoutek

INTRODUCTION: BUREAUCRACY, POLICY FORMULATION AND POLICY WORK

Bureaucracies are hierarchical institutions providing capacity and expertise to accomplish complex social tasks (Meier & O'Toole, 2006, p. 1). Historically, the bureaucracy has been understood as government administration staffed with non-elected officials. Traditional models of bureaucracy differentiate between elected politicians and administrators in terms of division of labour, discretionary power, accountability and norms of behaviour. While politicians in democratic societies represent the interests and values of their constituency and are responsible for the formulation of goals and actions to achieve these goals, administrators serve to implement policies and run the day-to-day administration of the state. An ideal-type bureaucracy is a rational-legal authority regulated by written rules and acting in a strictly neutral manner within a clear chain of command. Tasks from politicians are efficiently implemented by educated and competent officials who remain independent of politicians due to tenure and merit-based promotion rules (Weber, 1922; Wilson, 1887).

The politics-administration dichotomy has developed into a normative standard and become a central organizing principle of political systems in the West and elsewhere (Rouban, 2003), but it has also been roundly critiqued. This

> normative ideal contradicts several empirical studies showing a more complex interaction between politicians and administrators, and more diverse roles for the two sets of actors. Administrators are to a very large extent involved in the formulation of visions and objectives at the political level. Their involvement is not limited to choosing means but also involves ends. In other words, administrators play an active role at the political level. (Hansen & Ejersbo, 2002, p. 734)

It is clear that in democratic societies, elected politicians are formally superior to non-elected officials, but the actual working relationship is much more complicated and contested (Svara, 2006, p. 954).

In his seminal work, Heclo (1974) stresses the crucial role that public officials play in the policy process, including in problem identification and formulation of alternative solutions. Thus, the bureaucracy can be considered as a key and autonomous actor actively shaping the governmental agenda. In particular, several modes of influence are theorized in the literature. Most prominently, bureaucrats' professional knowledge, experience and resources make them virtually indispensable to decision-makers. Modern social systems rely on expert knowledge to the extent that they cannot operate without skilled and highly educated professionals.[1] And especially in knowledge-intensive policy domains,

where external policy capacities may be low, government bureaucracies are considered as prominent sites for acquisition, organization and application of knowledge in policy. Moreover, even if policy goals are formulated solely by politicians, the elaboration of concrete policy designs and instruments depends on civil servants. During the process of drafting a policy, often vague goals, structures and key features have to be fundamentally revisited and might be significantly reshaped by policy bureaucrats (Page, 2003).

Government bureaucracy can also be understood as a veto player following its own particular worldviews and interests (Tsebelis, 2002). Especially in countries with strong insulation of administration from external actors and even government, elected politicians might be hindered by public officials in formulating alternative policies (Marier, 2005, p. 524). This is even more visible at the supranational level, where the influence of national politicians is weakened while the role of administration, serving as a primary locus for dealing with highly technical matters, is reinforced (Rouban, 2003).

There might also be other situations when the significance of bureaucracy in policy formulation increases, at least temporarily. This can be the case of a so-called caretaker government in multiparty democracies, when the country is governed by an outgoing government and/or public bureaucracy while a new political government is formed. This is usually a rather short time period and actions taken by a caretaker government are limited. Several examples in recent history, however, show that the transitional period can be quite long, during which far-reaching decisions, such as nationalization of a bank or participation in a war, can be taken (Devos & Sinardet, 2012). During such a period, administrative and budgetary control of expenditure is strengthened (Bouckaert & Brans, 2012). Another situation in which a bureaucracy is more important comes about when the government is paralysed in political deadlock and approaches public officials with a request to find a solution and/or compromise (Marier, 2005, p. 540). In times of political void and/or lack of interest from politicians in the agenda, bureaucrats try (wrongly or rightly) to anticipate reactions of political leaders and act accordingly (Page & Jenkins, 2005).

To conclude, the view of bureaucracy as a neutral authority that impartially advises elected politicians and implements policies is inaccurate and omits a large amount of everyday policy-making (Page, 2001). There seems to be consensus that the traditional politico-administrative division of labour is a rather normative ideal than actual practice of policy-making and that bureaucratic involvement in policy formulation varies greatly across time, place and policy sectors. In this chapter, we explore how the nature of policy work within government has evolved in different contexts until the present time. To this end, we provide a review of theoretical and empirical accounts of policy work focusing on three main aspects: (1) actual practices and professional identities of policy workers; (2) policy (analytical) capacity; and (3) policy workers' involvement in politico-administrative relations. Following this structure, we begin by elaborating on the day-to-day activities done by policy bureaucrats, their professional values and the different forms of knowledge they utilize. Secondly, we enquire into policy bureaucracies from the perspective of policy (analytical) capacities, focusing not only on the quality and quantity of policy workers but also on the institutional arrangements for policy development and coordination in terms of organizational structures, processes and cultures. Thirdly, we analyse the relationship between policy bureaucrats and politicians with special attention to different types of politicization and their relation to

policy formulation. In the conclusion, we synthesize our arguments to arrive at three possible concepts of policy formulation, and outline their utilization in future public policy research.

POLICY WORK AND POLICY WORKERS WITHIN PUBLIC BUREAUCRACY

Traditional research into policy practice has drawn on the concept of the policy process as a sequence of stages in informed decision-making based on expert advice of policy analysts and leading to preferred outcomes (Colebatch, 2005, 2006; Howard, 2005). This concept of policy practice as an exercise in the instrumental rationality of governing became the mainstream approach to investigations of work done by policy analysts and advisors, not least due to its proliferation in policy analysis textbooks and courses, particularly within the US context (DeLeon & Martell, 2006; DeLeon & Vogenbeck, 2007; Veselý, 2009).

In contrast, the policy work approach, which seeks to capture the present-day practice, moves away from a single 'textbook' representation of policy practice-as-advice and acknowledges its complex and multi-faceted nature in different (policy advisory) systems, issue areas and organizations (Kohoutek et al., 2013). Among other things, it effectively enlarges the range of those participating in the work of policy as a form of their professional activity.

Who are Policy Workers?

Unlike traditional policy analysis, the policy work approach advocates a broader view of the process of policy-making. The category of policy workers therefore encompasses a wide range of practitioners, including but not limited to bureaucrats, experts, political leaders, non-governmental organization (NGO) staff, advocates, analysts, mediators and interest group representatives. They are located in public, corporate or non-profit organizations – such as government, professional bodies, consultancies, universities, think tanks, community centres and so on – and perform a wide range of policy-related activities. For example, as shown by Page (2009), drafting new legislation is not the simple technical translation of political language into the law done by disinterested lawyers. On the contrary, it is a crucial part of policy-making where policy can be (re)formulated and specified into its final shape.

In this 'interplay of different forms of knowledge, different organizational locations and different understandings of the process' (Colebatch, 2006, p. 316), public bureaucracies are a traditionally significant locus of policy work. There, policy work is done by professional public servants (Halligan, 1995). These policy bureaucrats (Page & Jenkins, 2005) are not a homogeneous group working in similar settings. As noted by Johansson, they

> can be found at all levels of government, from national to local level, and on all levels within bureaucracies, from executive positions to caseworkers at street level. Some are mainly involved in the preparation of proposals, while others have the primary objective of implementing policy

on a day-to-day basis. Some work under regulatory frameworks that make their decisions rather predictable, while others do not. Some are trained in public administration, others as professionals or experts. Some perform their duties on their own, while others would barely be able to perform a single task without iterated and frequent interactions with other actors, public as well as private. (Johansson, 2012, p. 1032)

In order to bring order into this diversity, different classifications can be found in the literature. For example, Gargan (2007, p. 1129) makes a distinction between two basic groups on the basis of tasks and knowledge used. In the first group, professionals *for* public administration are mainly involved in administration, management and supervision of government affairs. Performance of these tasks does not require specialized formal education, but does require the application of analytical skills, reasoning and personal responsibility, as well as a large amount of knowledge of principles, concepts and practices central to public administration and/or management. The second group consists of professionals *in* public administration who are mainly involved in service provision to target groups outside government and are trained in a concrete field of study for their profession (for example, economics, law, medicine, architecture, social work and so on). Gargan (2007) further distinguishes between knowledge that is usable beyond public administration (common service professionals such as doctors, lawyers and economists) and knowledge specific to services provided predominantly by the government (public service professionals such as soldiers, diplomats, police officers, foresters and the like).

However, given the changes affecting public administration, namely, privatization (and nationalization), the boundaries between these two different types of knowledge become more diffuse. From a policy-making perspective, it would be more useful to take policy context into account. Johansson (2012) discerns between welfare bureaucracy, where professionals such as medical doctors, social workers or teachers focus on providing services to individuals, and infrastructure bureaucracy, where professional bureaucrats, technicians or experts provide collective services to all citizens (or consumers). While welfare bureaucracy target groups are clearly defined and rather closed (unemployed, poor, the elderly), infrastructure such as roads, sewage systems or electrical wiring is usually open and the corresponding target group is rather loose. This has a clear effect on the types of networks in which public officials participate: welfare professionals are engaged in networks of clients and their organizations, while infrastructure bureaucrats are embedded in networks of governmental authorities, consultants, contractors and interest groups.

This brief overview suggests that policy work takes on a range of forms and that policy workers in public administration perform a range of tasks which, one way or another, affect public policies and their outcomes (Colebatch et al., 2010; Howlett & Wellstead, 2011; Radin, 2000). In the following sections, we elaborate on the day-to-day activities done by policy bureaucrats, the different forms of knowledge they utilize and their professional values and analytical capacities for policy work.

What do Policy Workers Do?

The idea of the importance of policy workers in policy formulation has long been recognized by many authors (for example, Heclo, 1974; Meltsner, 1975; Weber, 1972). The traditional view of policy analysis links it to providing advice for decision-makers, and

considers policy-making as an *authoritative choice* (Colebatch, 2006) made by politicians and/or top-positioned bureaucrats on the grounds of best available evidence and rational expert advice. To meet policy-makers' knowledge needs, knowledge production has to be mobilized, and available knowledge transformed into policy-relevant information. In this process, rigorous methods of research and policy analytical tools are used by experts in order to identify and analyse problems and, more importantly, to structure information and opportunity for policy-makers to develop alternative choices (Gill & Saunders, 1992).

Governments have limited internal capacities for research production, and thus often demand research sourced from outside government. Still, government bureaucracies are traditionally considered to be prominent sites for the acquisition, organization and application of knowledge in policy. There, the use of knowledge varies greatly across time and place, policy sector and organizational cultures. Often, junior or middle-level bureaucrats are responsible for providing professional policy advice to senior/upper-level civil servants and politicians (Page & Jenkins, 2005). However, this does not mean that high-ranking officials are not involved in the process of knowledge acquisition and use. Instead, they may significantly influence the organizational ethos and culture towards research use and, more specifically, filter scientific evidence to match organizations' interests (Ouimet et al., 2009, p. 334).

Key activities of rational policy work are therefore scientific research and, especially, the conversion of scientific knowledge into concrete assumptions on public policy-making (Mayer et al., 2004). This is done by producing research reports, journal articles and other materials and shaping the knowledge obtained into the texts of public policy documents such as position papers, briefing notes or white and green papers (Evans & Wellstead, 2013). These activities resound with Lasswell's (1951) vision of policy science as bringing together social sciences and practical policy-making to solve societal problems, and Dror's (1967) call for the establishment of professional policy analysts for improving decision-making processes.

From this perspective, policy workers take part in policy formulation by defining social problems, clarifying public policy goals, identifying strategies for goal achievement and making recommendations of the most plausible solutions. The concept of rational policy work thus sees policy workers as 'technicians' (Meltsner, 1975, 1976) possessing scientific expertise in the form of knowledge of abstract concepts for a given problem, relevant theories and a range of research and analytical techniques for their application (Page, 2009, 2010, p. 259). This allows policy workers to utilize as well as create epistemic knowledge (Tenbensel, 2006, p. 202) of causal relationships between social phenomena and thus identifies the causes and effects of public policy problems. However, such episteme has to be contextualized with knowledge of public policies and instruments relevant in a given area, that is, public policy expertise (Page, 2009, 2010, p. 259).

This instrumental account of public policy, embodying much of the traditional policy analysis and stagist approach to the policy-making process, has become untenable vis-à-vis existing practice, which defies the clear-cut distinction between formulation and implementation stages of policy. Public policy theory and practice is now preoccupied with the presence and impact of other policy actors as bearers of different (and sometimes conflicting) interests. Moreover, conflicts accompanying the policy process are often underlain by normative and ethical issues that cannot be fully resolved by rational

analysis. Two other more profane accounts of policy-making can be said to have evolved out of the tensions between the textbook approach and its practical realization.

In the first account, policy-making takes the form of *structured interactions* (Colebatch, 2006) among different actors and in different contexts. The government is no longer a hegemonic authority; actors' agendas and goals have to be identified and taken into account by policy workers. Instead of finding rational solutions to policy problems, policy workers provide the client (not solely the government) with strategic advice on how to most effectively achieve the defined goal under a given political constellation (Mayer et al., 2004, p. 176). To do so, they have to engage in public dialogue, coordinate interactions with other actors and mediate consensus among them (Mayer et al., 2004, p. 177; Wellstead et al., 2009, p. 37). Ideal-typical representatives of such a role are generalists who possess knowledge of complex processes leading to the acceptance of a given public policy, that is, process expertise (Page, 2009, 2010, p. 259). They lack formal education in research and/or policy analysis and rarely solve substantive problems in their fields of education (Feldman, 1989; Meltsner, 1975, 1976; Page & Jenkins, 2005), but have political skills such as negotiation, bargaining, networking and the like. Policy workers as process generalists thus possess a practical and technical understanding of personal and institutional characteristics (Tenbensel, 2006, p. 202), which is often implicit, based on individual experience, but rather universal, that is, applicable in different areas of public policy (Page & Jenkins, 2005).

The second account understands policy-making as a combination of cognitive processes ('puzzling') and competitive interaction ('powering') (Hoppe, 2010). It emphasizes the normative and *socially constructed* nature of policy problems (Colebatch, 2006). Policy work thus accounts for how actors identify and formulate problems, which meanings they attribute to different aspects of a problem (for example, framing), and ultimately how they perceive the outside world. Unlike an authoritative choice of the government, policy is created and maintained by collective action. Policy work can improve this process not only by acknowledging the values and arguments of different actors but also by drawing attention to those with unequal representation in the decision-making process. It is the application of practical knowledge (Tenbensel, 2006, p. 202) that enables policy workers to identify various definitions of a problem and to find an answer to the question of what should be done. Policy workers dealing with such tasks are termed policy philosophers (Hoppe & Jeliazkova, 2006) or democratic issue advocates/activists (Mayer et al., 2004) who have knowledge of the problem and are willing to actively engage in it, thus deciding on the course of public policies (Kohoutek et al., 2013).

The foregoing argumentation suggests a number of central conceptual policy work attributes represented by type of knowledge, actors and activities. These attributes can be combined with the underlying policy work accounts, that is, authoritative choice, structured interactions and social construction, to produce three major constructs of policy-as-work (Table 3.1). Naturally, the constructs outlined are generalizations and do not address the complexity and variety of policy work in its fullness. Instead, they are meant to orient the reader to the key attributes of policy work, to their different bearings on how policy work is framed and to the overall implications for policy formulation. Moreover, they provide a basis for further thinking about the analytical capacities and nature of politico-administrative relations to which we turn in the following sections.

Table 3.1   Three accounts of policy work

Framing account	Authoritative choice	Structured interactions	Social construction
Type of knowledge used in policy-making	Scientific/policy expertise (*episteme*)	Process expertise (*techné*)	Practical knowledge (*phronesis*)
Main actors	Privileged insiders: scientists, analysts, policy bureaucrats, decision-makers	Organized outsiders to government: consultants, advisors, entrepreneurs, process managers, negotiators	Insiders and outsiders to government plus voices from the periphery: issue activists, advocates, journalists, mediators
Key activities	Rational problem-solving, evidence-based policy-making	Managing co-production of policy outcomes, stakeholder analysis, synthesis and integration	Puzzling and powering over policy issues, deliberation, collective action
Policy formulation features	Reactive (based on demand from politicians), impartial provision of policy alternatives	Dynamic (based on stakeholders' interests), looking for consensus, provision of strategic advice	Proactive (advocacy), making sense together, creation of new patterns of social organization

Empirical Research on Policy Work in Government Bureaucracy

Despite a somewhat short tradition of empirical policy work research, a number of enquiries have been made into the activities of policy workers in different contexts. These studies are usually country-specific, mapping the work of policy workers located in different functional levels (federal, state/provincial, regional) contingent on the organizational structure of a country's public administration. The existing accounts of policy work come mostly from Canada but also, to a lesser extent, from the United States, Australia and several European countries. There is growing interest in policy work research in other countries such as Japan (Adachi et al., 2015) and Brazil (Vaitsman et al., 2013). This subsection reviews and compares the contextual characteristics of policy work as practised in selected Anglo-Saxon (Canada, the United States and Australia) and European countries.

The empirical studies of Canadian policy work practices outnumber similar research in other countries and cover all major organizational levels – federal, provincial and regional. These studies have been published from the second half of the 2000s onwards (Howlett, 2009a; Howlett & Newman, 2010; Howlett & Wellstead, 2011; Wellstead et al., 2011). Using large-N sampling and quantitative methodology, they enquire into the nature of policy work, often focusing on policy analytical capacities and profiling those who put them into use. The main results can be summed up as follows. Federal policy work typically consists of solving complex problems requiring horizontal inter-departmental or inter-sectoral coordination as well as networking within or outside Canada – yet much time is devoted to dealing with unexpected, pressing issues ('fire-fighting'). Federal policy

workers often have private sector or academia experience and at least some training in formal policy analytical techniques (Baskoy et al., 2011; Howlett & Newman, 2010; Wellstead et al., 2009). Unlike their federal counterparts, Canadian provincial/state policy workers do not typically have formal policy analysis training. Policy work at the provincial/territorial level entails policy appraisal, implementation, strategic brokerage or evaluation. It is more oriented towards solutions of day-to-day or weekly problems and uses qualitative and informal methods (Baskoy et al., 2011; Howlett, 2009a; Howlett & Newman, 2010; Howlett & Wellstead, 2011). In a similar way, regional policy work in Canada is done mainly by those without formal policy analysis training (but often long-term experience). It usually involves rudimentary, non-analytical actions (information gathering) and short-term street-level (client-oriented) service provision, communication and negotiation. Canadian regional policy workers are typically 'fire-fighters' dealing with immediate problems (Wellstead & Stedman, 2010; Wellstead et al., 2009).

Compared to the Canadian contexts of policy work, the corresponding empirical (quantitative) evidence from the United States is somewhat less detailed. The available accounts show that federal bureaucracies are somewhat more prone to political influence compared to the state level, with few federal policy workers having the corresponding training and experience from state or regional administration (Gailmard & Patty, 2007; Radin & Boase, 2000).

Since 2010, quantitative research into different aspects of the analytical capacities of policy workers in public bureaucracies has also been carried out elsewhere, including in Sweden, Australia, the Czech Republic and Belgium. The Swedish study concentrates on factors affecting variations in mentality of policy analysts applying scientific rationality for problem-solving, concluding that the variations are likely to be explained by workplace socialization and not by educational background and type of university studies (Ribbhagen, 2011). The Australian contribution comprises an investigation conducted in the sparsely populated Northern Territory and aimed at identifying major work tasks, risk factors and barriers to policy work enactment (Carson & Wellstead, 2015). The tasks encompass consulting with stakeholders and decision-makers, briefing management and collecting data; the factors hindering performance of quality policy can be summed up as a lack of formal training and experience, government reorganization, inadequate resources, time constraints and the short-term orientation of work (Carson & Wellstead, 2015). Another Australian study presents an enquiry into valued sources of policy work expertise among public servants at the state and federal government levels, underscoring the importance of collegiate knowledge-sharing and on-the-job learning for the acquisition of relevant working skills (Head et al., 2014). The research from the Czech Republic makes use of two large-N datasets to arrive at profiles of public officials located in ministries and regional bureaus (Veselý, 2014). The findings show that ministerial officials are older, more educated, have more public administrative work experience and do more analytical and research-oriented tasks than regional policy workers. Czech regional policy workers are more likely to be involved in policy implementation, programme monitoring and coordination, advising regional political bodies or communicating with the general public (Veselý, 2014). Finally, research on policy workers at the central level of government in Belgium shows rather occasional use of policy analysis. Nevertheless, they use soft/non-formalized techniques such as consultation and negotiation more frequently than formalized policy analysis techniques in the conduct of policy work (Aubin et al., 2015).

At this point, it is necessary to highlight the existence of another approach to policy work and policy worker-related investigations. Building upon qualitative methodology and small-N case study design, this approach aims at outlining facets of policy work and practitioners' attitudes to it on a day-to-day basis. The corresponding research enquiries reconstruct the types of work tasks, activities and practitioners' profiles, and the overall policy work styles, through an analysis of available memos, notes, briefs, minutes and other similar materials complemented by participant interviews. This approach yields observations focused on personalized, case-specific accounts of how dilemmas of policy work are confronted and dealt with in practice (Coffey, 2015; Hoppe & Jeliazkova, 2006; Maybin, 2015; Page & Jenkins, 2005; Ribbins & Sherratt, 2015).[2]

Other accounts reveal explicit concern with real-time situations and dilemmas of so-called boundary workers located in some specific issue areas (for example, environment protection). Hoppe and others (de Vries et al., 2010; Hoppe, 2010; Hoppe & Wesselink, 2014; Hoppe et al., 2013) pointed out that the interaction between politics/policy and science is not just a simple demand and supply relationship. Knowledge production is a process of social construction (Latour, 1999) where the worlds of experts and bureaucrats, among others, are interconnected. At the boundaries of these interactions, policy bureaucrats and experts are involved in forming boundary arrangements, that is, a prescription of who can and cannot participate in the interaction (demarcation) and what the interactions should look like (coordination) (Hoppe, 2005, p. 207). Thus, the science-policy/politics relationship has an interdependent character where knowledge is co-produced by policy-makers and scientists (Edelenbos et al., 2011; Jasanoff, 2004). For example, Hoppe et al. (2013) study the patterns of avoiding over-politicization and over-scientization of boundary policy work in the area of climate change governance. They find these patterns as bearing on the extent of climate problem (un)structuring, stage of the policy process and characteristics of the policy network along with the socio-political context of the problematic. In another study, Nekola and Morávek (2015) reconstruct the formulation of drug policy recommendations by an advisory committee working at the boundary between science and practical policy-making. They demonstrate how expert efforts to produce evidence-based policy advice were constrained by an externally induced sense of urgency, avoidance of controversy, internal disunity about drug policy orientation, limited evidence and the institutional momentum of traditional drug control. Also, the experts belittled available evidence in order to achieve consensus among themselves.

ANALYTICAL CAPACITY FOR POLICY FORMULATION

Policy capacity is considered one of the prerequisites for policy success (Howlett, 2015). The overall policy capacity of a government results from both human resource capacities in terms of the quality and quantity of policy workers and the institutional arrangements for policy development, coordination and decision-making in terms of organizational structures, processes and cultures (Gleeson et al., 2011, p. 238; Nunberg, 2000, p. 18). Policy capacity thus encompasses staffing issues together with organizational matters related to resource utilization, policy coordination and implementation, knowledge management and organizational learning and even ability to make non-incremental strategic choices (Bakvis, 2000; Parsons, 2004; Peters, 1996).

With respect to policy formulation, the ability of individuals and organizations to acquire, communicate and utilize different types of knowledge in the policy process is seen as one of the most important dimensions of the problem-solving capacity of modern states (Lodge & Wegrich, 2015). For this particular type of policy capacity, we use the term *policy analytical capacity* (PAC) (Elgin & Weible, 2013; Howlett, 2009b). In contrast to the broader concept of policy capacity, PAC focuses on the early phases of the policy process such as planning, research, advising and decision-making (Newman et al., 2013) and is thus especially relevant for understanding the role of public bureaucracy in the process of policy formulation. As Elgin and Weible (2013) point out:

> Policy actors and organizations with high levels of PAC are argued to have a higher probability of shaping policy agendas and impacting the design and content of policies, a better understanding of the context in which policies are implemented and ability to evaluate policy outputs and outcomes – that is, they are more likely to be influential in determining who gets what, when, and how. (p. 116)

Individual and Organizational Levels of Policy Analytical Capacity

There is a consensus that the individual skills of policy workers are essential for the policy capacity of a given organization. According to Brown et al. (2013, p. 453), governments depend on public servants who are capable of doing policy work of a high order:

> human resource development is arguably most important in the context of policy capacity because the ability of individual public servants to plan, analyse, implement and evaluate policies to address critical issues will have a direct impact on the well-being of the citizens in their societies.

For policy workers to be able to create and effectively communicate policy advice, several competencies are key. First of all is knowledge of both the context of the problem and of the policy itself, including the organizational and political environment. Second are analytical skills such as the ability to frame problems, appraise research evidence, predict the likely consequences of policy choices and evaluate associated risks. Thirdly, policy workers need practical policy development skills related to the daily work of policy such as drafting, researching, consulting, evaluating and project management. And last but not least are specific personal attributes, for example, interpersonal and communication skills, creativity, intuition and judgement, and flexibility (Gleeson et al., 2009, 2011). PAC also requires the ability to apply statistical and applied research methods, advanced modelling techniques, and sophisticated analytical and forecasting techniques. At the same time, 'soft skills' such as the ability to communicate policy-related messages to interested parties and stakeholders and integrate information into decision-making processes are also seen as important by both practical and theoretical accounts of policy analytical capacity (Howlett, 2009b).

At the organizational level, knowledge, skills and people together define an organization's capacity to respond to a policy issue and its ability to engage in long-term planning (Elgin & Weible, 2013; Howlett, 2009b). Organizational PAC relies on the supply and development of information and evidence, an adequate supply of highly skilled policy personnel and an appropriate skill mix in policy units supported by personnel

management and workforce development practices. These should be institutionally integrated within systematic processes for policy development, monitoring and evaluation. In this sense, the formal and informal relationships with stakeholders and coordination within and between departments and between different levels of government are crucial. Last but not least, organizational policy capacity is strengthened by policy leadership, strategic management and a culture characterized by clarity of direction, innovation, readiness to take risks, teamwork and trust (Gleeson et al., 2009, 2011).

Organizational analytical capacity can be related to working conditions in a given organization in several ways. Firstly, the availability of policy-relevant information is essential for PAC. Secondly, policy workers' individual capacities have to be developed and deepened during their career within an organization through professional training. Thirdly, competent workers need to be well paid; transparent, merit-based rules for promotion further support their professional values and motivation. However, it is not only this 'material' aspect of policy work that is important; identification with the organization and the outcomes it produces for society, doing interesting work and the workplace environment also matter.

To complete the overall picture, it is also worth mentioning that some authors make an account of analytical capacity for the whole system (Wu et al., 2015). For such systemic analytical capacity, two crucial factors can be identified. The first one concerns the state of knowledge production facilities (educational and scientific organizations) in a given country or even globally. The second factor relates to the actual availability and accessibility of produced knowledge to policy workers (Hsu, 2015) and its policy relevance.

Decline of Bureaucratic Policy Capacity?

Over the last two decades, many governments have paid attention to (re)building public sector policy capacity. This is a reaction to allegedly declining policy capacity (Edwards, 2009; Tiernan, 2011) that was attributed to structural and procedural changes in the public service of many countries. Many authors blame these changes on the adoption of public sector reforms based on ideas of New Public Management (NPM) (Aucoin & Bakvis, 2005; Bakvis, 2000; Halligan, 1995; Painter & Pierre, 2005). One of the most visible outcomes of the NPM approach was the externalization of policy capacities – moving advisory activities previously performed inside government organizations to places outside of government (Howlett & Migone, 2013; Veselý, 2013, p. 200) – which left the state 'hollowed out' (Rhodes, 1994). Moreover, an emphasis on managerial skills and process and presentation, rather than analytical capabilities of civil servants and actual policy content, 'pushed policy advice work down the hierarchy' (Dunleavy, 1995, p. 62) in many governments.

However, recent empirical research on state-level policy capacity in the United States suggests a more ambiguous picture. For example, the Colorado government has a mixed level of policy analytical capacity in the context of energy and climate issues when compared to academia and the private sector. It shows quite a low individual level of research capacity but is capable of successfully integrating relevant research and information into decision-making. Overall, government is not as 'hollowed out' as suggested in the literature (Elgin et al., 2012). From an advocacy coalition framework perspective, governmental actors within the pro-climate coalition in Colorado possess a comparable level of both

individual and organizational policy analytical capacity to address climate and energy issues (Elgin & Weible, 2013).

Public sector reforms have also been accompanied by intensified participation of non-governmental actors and increased efforts to include other forms of knowledge into the policy-making process (for example, contextual and local stakeholder knowledge). This relates to an increased emphasis on the use of evidence in policy-making (Howlett, 2009b, p. 156). Lack of capacity may, especially in knowledge-intensive policy sectors, lead to increasing demand for external advice at the expense of internal policy analytical capacity (Perl & White, 2002). Contrary to this knowledge expansion thesis, however, Veselý (2012) suggests that workforce competition between the public and private sector (which is related to the price of policy advice) is a key factor influencing internal policy capacity of public administration organizations. In fields where public administration need not compete with the private sector for skilled workers (for example, cultural policy), internal policy capacity is relatively high and externalization low.

Last but not least, capacity is significantly influenced by large-scale changes in the structure of government or the entire political regime (Newman et al., 2013). Examples of such rule-changing events are the end of colonial rule in Hong Kong in 1997 (Cheung, 2004) or the fall of communism in Central and Eastern European (CEE) countries in the early 1990s. In Hong Kong, Cheung reported the weakening of policy capacity of the new Special Administrative Region government, but the situation in the post-communist countries is more ambiguous. Liberalization and democratization of the political system, privatization and marketization of the economy, and pluralization and individualization of society required fundamental reforms aimed at establishing modern public administration. The main priority of CEE administrative reform programmes was to strengthen central policy-making capabilities, especially in order to become a member of the European Union (EU) and the so-called European Administrative Space (EAS); these programmes were further reinforced by the international agencies active in the region (Goetz, 2001; Goetz & Wollmann, 2001). Reforms included the establishment of a system of open competition for entry to the civil service, professionalization and depoliticization of the senior ranks, and the establishment of training programmes and transparent performance evaluation systems (Meyer-Sahling, 2011, p. 239; Scherpereel, 2004, p. 554).

Still, the policy capacity of CEE countries is considered generally weaker than in the West, and this is especially true for the central level of public administration. At the time of EU accession in 2004, the civil service in CEE countries basically met none of the EU standards for civil service reform (Meyer-Sahling, 2011) and both individual and organizational policy analytical capacity could be considered very low when compared to the existing EU members. At the individual level, Nunberg (2000) identified a drain of skilled officials from core public administration tasks to either the domestic private sector or to EU administrative structures that offered better remuneration. Also, a lack of training in policy development and analytical techniques seemed to undermine PAC at the central level of CEE. At the organizational level, the absence of protection against politicization of the civil service has hindered the establishment of a merit-based, professional civil service (Nunberg, 2000, p. 70). There has been insufficient policy coordination of the traditionally independent sectoral ministries, and their lack of involvement in policy-making has been further worsened by a weakening of horizontal management systems (Nunberg, 2000, p. 19; Randma-Liiv & Järvalt, 2011, p. 40). Given the absence of a coordinated civil

service policy, Meyer-Sahling (2011, p. 234) has classified post-accession development as a reversal in some countries (for example, the Czech Republic) and as undermining prospects of meeting the EU standards for civil service reform.

POLITICO-ADMINISTRATIVE RELATIONS AND POLITICIZATION OF PUBLIC ADMINISTRATION

Despite the growing importance of non-hierarchical modes of governing and outside sources of knowledge (Pierre & Peters, 2000; Rhodes, 1996), policy workers located within government bureaucracies are still considered the main source of expertise for policy formulation, decision-making and implementation. This puts policy bureaucrats into an exclusive position, inconsistent with the idea of a politics-administrative dichotomy characterized by impartial bureaucratic advice to politicians and effective execution of political decisions. 'Lay' political control over expert-bureaucrats is inherently difficult to attain due to political dependence on public administration expertise. In this respect, theorists of public choice speak of information asymmetry as the cause of inefficiency and ineffectiveness of public administration (Page, 2009). At the same time, the notion of politicians taking over public administration and misusing the state for their private interests is a concern both to the public and public bureaucrats themselves. The politicization of public administration is seen as a threat to the professional status of public officials and to the normative ideal of a strategic balance between politics and public administration (Rouban, 2003; Svara, 2001).

Svara (2006, p. 955) identified four standard models of the relationship between administrators and politicians based on the extent of a hierarchy and the distinctness of roles in the system. In the first model, with separate roles, administrators are clearly subordinate to politicians, and the two groups have different roles and norms: politicians set goals and define the preferred policy outputs, and administrators provide advice and choose the methods. In the autonomous administrator model, administrators possess equal or even greater influence than politicians. Administrators are involved in policy-making, but politicians are separated from the administrative role. The responsive administrator model expects subordination of administrators to politicians and dominance of political norms over administrative ones. In the overlapping roles model, there is a reciprocal influence between elected officials and administrators, but separate norms may be maintained.

These standard models acknowledge the fact that public officials are indeed political. They do work of a political nature, including policy formulation and sometimes even decision-making (Rouban, 2003). However, in cases when the level of control of politicians over administrators and the degree of differentiation between their roles is either very low or very high, the balance is disrupted. This may lead to another four extreme models of politico-administrative relations. A combination of very high control over administrators and a high degree of differentiation results in isolated administrators whose expertise and advice are effectively ignored in policy-making. On the other hand, a high level of control together with a very low distance between politics and administration allows politicians to manipulate administrators. Very low control and very high differentiation can be characterized as a bureaucratic regime where politicians are subordinated to administrators.

Finally, very low control and differentiation allows politicized administrators to be openly and actively involved in political exchange with elected officials (Svara, 2006, p. 956).

This raises the crucial question of how to empirically discern between the standard and extreme models. What level of control or differentiation is 'standard' and what constitutes very high or very low levels? Scholars in public administration and political science adopt different approaches to measurement, including indicators such as the presence or absence of civil service law (Grzymala-Busse, 2007), party turnover (O'Dwyer, 2004), political discretion over personnel policy (Meyer-Sahling, 2002, 2004), actor dominance in policy development and execution (Schreurs et al., 2011), range and depth of party appointments to publicly funded institutions (Kopecký & Spirova, 2011; Kopecký et al., 2012) or political appointments to senior positions, size of ministerial cabinets, senior official turnover after elections, senior officials' political experience, and political contacts for career progression (Meyer-Sahling & Veen, 2012).

In conceptual terms, the indicators identified in the scholarly literature reflect diverse assumptions on the significance of the legal framework, political authority, professional expertise, impartiality of service, merit-based recruitments and promotions, and partisan party politics in varied manifestations of politicization. These assumptions thus attest to politicization, addressing specific relations between politicians and administrators, as a slippery concept that lends itself to different interpretations – at the heart of which are issues of control over the enactment of public services (cf. Mulgan, 1998; Peters, 2013).

Four Types of Politicization

Under the traditional concept of separation of political and administrative roles, politicization is seen as a functional substitution of political criteria for merit-based criteria in officials' selection and promotion. Political involvement in bureaucratic *appointment* processes has been a typical means of politicizing public administration. As such, the study of the nature of those appointment processes is one of the central elements of politico-administrative relations (Merikoski, 1973; Peters & Pierre, 2004; Weller, 1989). The mechanism of appointments can proceed in three principal ways. The appointments can either be based on a candidate's merit and professionalism, leaving little space for political interference (the professional approach), or they can be subject to varied degrees of political control. In the latter case, the control can manifest overtly – for example, by appointing a candidate directly affiliated to a given party (partisan politicization) – or covertly, through politically motivated appointments of a person with informal links to the politician and/or political party, be they ideational or rational (hidden politicization). The partisan and, to some extent, hidden politicization are specifically suited to channelling political party leverage to appoint a suitable candidate. However, even the essentially professionalism-driven approach to appointments may not be entirely free of a politician's influence, which could manifest in formulating the minimal appointment or promotion criteria or making the final choice from a list of pre-selected candidates (Beblavy et al., 2012; Kopecký & Spirova, 2011; Meyer-Sahling, 2008; Peters, 2013).

Over time, the appointment-centred, functional view of politicization has been complemented by three other relevant conceptualizations. The first, *formal concept* approaches politicization as emanating from general characteristics of a country's administrative

space, set in the civil service legislation (Eichbaum & Shaw, 2007; Hustedt & Salomonsen, 2014). Civil service legislation is therefore seen as central for defining formal political discretion. Unlike agency discretion, which owes a lot to an arbitrary authority of street-level policy enactors (Meyers & Vorsanger, 2003), formal political discretion 'serves to capture the extent to which civil service legislation grants governments and their ministers authority over personnel policy decisions, and the extent to which the exercise of this discretion is subject to procedural constraints' (Meyer-Sahling, 2004, p. 74). The decisions bear on the rules of personnel allocation to administrative organizations, career progression and termination, and levels of remuneration (Meyer-Sahling, 2006). Unlike the traditional approach focusing solely on politicization of appointments, the formal concept takes account of broad legal constraints affecting politicization of the whole administrative system, that is, politicization of policy (Eichbaum & Shaw, 2008; Peters & Pierre, 2004). Importantly, in the absence of civil service law, legal regulation of politico-administrative relations is effectuated by common case law, customary arrangements or informal set-practices owing a lot to the administrative tradition of a given country/region (cf. Verheijen, 2003).

The second concept relates politicization with a political discretion to carry out modifications to bureaucratic structures, with the aim to push through policy priorities of the government of the day (Peters, 2013). The changes may also entail creating additional advisory or analytical posts or units that would, in their capacity, help manage prioritized policy goals including evaluations of policy effectiveness. The provision of political-tactical advice is therefore central to the concept of *structural politicization* (Hustedt & Salomonsen, 2014). Such structural politicization is essentially seen as benign in allowing democratically elected politicians to initiate changes necessary to overcome potential bureaucratic inertia or obstruction in the process of governmental policy implementation. As Mulgan points out:

> much of the impetus behind the public sector reforms . . . has come from elected politicians wanting to reassert ministerial control over government bureaucracies in the light of perceived recalcitrance from excessively independent career bureaucrats . . . Politicization can therefore be understood and also justified as part of a move securing greater political accountability of public servants. (1998, p. 8)

Reflecting such principles, structural politicization identifies the existence of a distinct stream explicitly dealing with the roles and powers of political advisors in Westminster-style administrative systems (Connaughton, 2010; Craft & Howlett, 2012; Eichbaum & Shaw, 2007, 2008). These studies fall under the rubric of administrative politicization (Hustedt & Salomonsen, 2014).

Finally, politicization is also brought to bear on politically related activism of civil servants as a distinct type of social actors (Peters, 2013). Such *social politicization* typically takes the form of bureaucrats' overt involvement in political activism that may lead to a switch from a bureaucratic to a political career within the confines of the given administrative space. It may manifest in ideological commitments and political preferences, or in civil servants' participation in issue-specific and advocacy groups or networks that lay pressure on (shaping) governmental policy choices (Meyer-Sahling, 2006; Peters & Pierre, 2004; Rouban, 2003). Despite their potential impact on the functioning of bureaucracies of the day, the forms of civil servants' political involvement are under-researched (Rouban, 2003).

Table 3.2   Politicization types and subtypes with characteristics

Type	Characteristics	Subtype	Appointment
Formal	Legal or customary rules for politicization of policy through allowed political discretion	n/a	n/a
Functional	Substitution of political criteria for merit-based criteria in all sorts of appointment procedures	Professional	Merit-based appointments, minimal political influence
		Hidden	Covert political interference (appointment of a party associate)
		Partisan/direct	Overt political interference (appointment of a party member)
Structural	Politically motivated changes/ adjustments of bureaucratic organizational forms to carry out policy priorities	Administrative	Activities of ministerial political advisors and their relations to other (permanent) civil service staff
Social	Politically motivated involvement and/or political convictions of civil servants	n/a	n/a

To summarize, the foregoing review into the nature of politico-administrative relations identifies four conceptually distinct types of politicization: appointment-centred (functional), formal, structural and social. The appointment-centred type further shows three subtypes – professional, hidden and partisan – that differ in the intensity of political interference over the selection or promotion mechanism. Correspondingly, structural politicization includes a distinct substream of studies dealing explicitly with formulation and conveyance of advice by governmental political advisors (administrative politicization). The underlying characteristics of each of the types of politicization and their subtypes are given in Table 3.2.

This review of the various politico-administrative conceptualizations leads to three important observations. Firstly, there is no single, unitary, overarching concept of politicization, rather there are several different 'politicizations' that differ in their underlying conceptual premises. Secondly, the politicization concepts are complementary in their actual manifestation. To give an example: appointments of officials, done within existing organizational structures, should observe legal stipulations of the administrative space, with the characteristics of the space also central for delineating the extent of social politicization. Thirdly and related, despite such practical complementarity, it is important to maintain the analytical distinction between the individual types of politicization, not least because hypotheses formulation and testing have the potential to advance politico-administrative research (cf. Lee & Raadschelders, 2008; Svara, 2006).

Politicization Studies: Synthesis of Evidence

In empirical terms, the studies on the subject generally conclude that politicization is a perennial issue of central public administration and has been on the increase over time (Peters & Pierre, 2004; Rouban, 2003; Verhey, 2013). This conclusion seems to be held across the world, including in both traditional Western-style democracies (the EU-15 states, Australia, North America) and the European post-communist countries that regained independence after the fall of the Soviet Union in the late 1980s (Hustedt & Salomonsen, 2014; cf. Kopecký et al., 2012; Rouban, 2003). However, on closer inspection, there are intra- as well as inter-regional specifics. To give an example, in the post-communist region of Central and Eastern Europe (CEE), politicization is generally high owing to the communist legacy of corrupt and ineffective state administration, inadequate legal frameworks allowing for a multitude of legal loopholes, and weak governing capacities of the state due to unstable coalition governments (Kopecký, 2006; Meyer-Sahling, 2004; Verheijen, 2001). Nonetheless, within this region, the Baltic countries of Lithuania, Latvia and Estonia recently demonstrate a less intensive degree of politicization of senior civil service compared to other CEE countries, notably Poland and Slovakia (Meyer-Sahling & Veen, 2012). This is with the result of less intensive post-election turnover, lesser involvement of senior officials in politics and comparatively lower importance of political contacts, including party membership, for career progression (Meyer-Sahling & Veen, 2012).

   In Anglo-Saxon and EU-15 countries, there is a difference between low politicization of the civil service, as typically found in the United Kingdom or Scandinavian countries, and the rather substantially politicized public administrative systems of South European countries, with the latter suffering from enduring patronage patterns of personnel recruitment to the public sector, formalism and legalism, over-production of laws, low implementation capacities, low esteem for the bureaucracy, lack of a traditional administrative elite, and widespread citizen distrust of government and politics (Kickert, 2011; Sotiropoulos, 2004). There are some similarities in the reasons for the politicization of public bureaucracies in Central/Eastern Europe and South European states, including inefficient and poorly organized administration along with weak implementation capacities of the state. Both CEE and Southern European states also have traditionally low levels of trust and heavy reliance on law enactment (cf. Ágh, 2003).

   All these findings on politicization, however, come with one major methodological reservation. More often than not, data on politicization are drawn from publicly available proxy indicators (for example, size of the ministerial cabinet, presence/absence of civil service law, post-election turnover), from external expert surveys, or from experiential, normative judgements of a study's author. While these approaches are understandable given the difficulty in data collection, they do not account for politicization-related views of civil servants and politicians as 'privileged insiders' of public bureaucracies (for exceptions see Eichbaum & Shaw, 2007; Lee, 2006). This huge gap in present-day politicization research calls for studies that have an explicit empirical focus on politico-administrative relations from the standpoint of bureaucracy officials and political representatives. Such accounts from 'privileged insiders' are also likely to shed more light on the taken-for-granted issue of (ever) increasing politicization of public administration.

CONCLUSIONS: THREE APPROACHES TO POLICY FORMULATION AS POLICY WORK

So far, we have dealt with policy work, policy analytical capacities and politico-administrative relations as separate aspects of policy formulation within government bureaucracies. However, these three aspects are clearly interconnected, and their complex relationship factors into the nature of policy formulation processes. Our analytical treatment of the theme makes it possible to distinguish three ideo-typical approaches to formulating policy (Table 3.3).

Table 3.3   Synthesis of policy work, policy analytical capacities and politico-administrative relations

Framing account	Authoritative policy formulation	Structured policy formulation	Policy formulation as social construction
Type of knowledge	Scientific/policy expertise (*episteme*)	Process expertise (*techné*)	Practical knowledge (*phronesis*)
Main actors	Privileged insiders: scientists, analysts, policy bureaucrats, decision-makers	Organized outsiders to government: consultants, advisors, entrepreneurs, process managers, negotiators	Insiders and outsiders to government plus voices from the periphery: issue activists, advocates, journalists, mediators
Key activities	Rational problem-solving, evidence-based policy-making	Managing co-production of policy outcomes, stakeholder analysis, synthesis and integration	Puzzling and powering over policy issues, deliberation, collective action
Policy formulation features	Reactive (based on demand from politicians), impartial provision of policy alternatives	Dynamic (based on stakeholders' interests), looking for consensus, provision of strategic advice	Proactive (advocacy), making sense together, creation of new patterns of social organization
Policy analytical capacity	Internal/inward, constricted demand for external expertise	Networks of actors (internal and external), capacity building and sharing	Boundary arrangements (demarcation and coordination), empowerment (local knowledge)
Standard politico-administrative relations	Separation and autonomy, politicians on top, officials as neutral professionals on tap	Responsive administration, politicians on top, loyal officials on tap	Overlapping roles, (top) officials as partners and political advisors
Mode of politicization	Formalized, legal rules (formal) and merit-based criteria for appointment (functional-professional)	Appointment of political associates (hidden) or party members (partisan), activities of political advisors (structural)	Political involvement/activism of public officials (social)

The first approach represents a traditional, vertical execution of bureaucratic authority, acting on political demand by elected political masters through the application of rational problem-solving methods. Under this *authoritative policy formulation* approach, politicians and administrators have separate roles, with bureaucrats acknowledged for possessing professional expertise that is subject to very little politicization, not least due to the existence of formal (customary) rules of conduct respected by the two parties (politicians and officials). The limited political interference into the enactment of formulated tasks due to this separation of roles, however, comes at a cost – analytical capacities are confined to bureaucratic expertise, which may prove insufficient to handle the mounting complexity of policy problems of our time.

The second, *structured policy formulation* approach builds upon more horizontal networks involving both government and non-government actors. Their capacities are coordinated and strategic advice is provided in order to achieve common goals. Policy formulation is a dynamic process of policy learning rather than a unidirectional flow of information from knowledge producers to government. Administrators actively cooperate with politicians as responsive and loyal servants. However, close political alignment may allow politicians to penetrate into public administration, undermining professional standards and making administrators powerless.

The third approach sees *policy formulation as a social construction*, which entails the 'collective puzzling' regarding problems. Logic and reason, dialogue and mutual understanding are emphasized over power struggles. Such deliberation can be achieved only by the involvement and empowerment of a broader range of actors, including those who are typically powerless, silenced or excluded. Policy formulation consists of the coordinated exchange of different types of knowledge (including lay and local knowledge) where proactive/advocative policy analysis clarifies values and arguments and democratizes the debate. More active engagement in the political realm is also expected from (top) administrators, who are partners to politicians rather than servants.

In its complexity, policy formulation research would do well with conceptual refinements of normative postulations in that policy formulation typically entails choice of responsible actors, policy goal(s), policy instruments and allotment of finance (cf. May, 2003). What seems to be needed is explicit recognition of the conceptual linkages between the key activities of policy formulation, those who put them to work, the capacities that such work requires, and the extent to which these are subject to political oversight or outright control. Our conceptualizations – embodied by authoritative formulation, structured formulation and socially constructed formulation – attempt to illuminate these linkages. Ideo-typical as these three approaches are, they offer useful points of departure to study issues of policy formulation, both within government structures and outside them.

NOTES

1. This omnipresence led some authors to describe a current system(s) of governance as technocratic (for example, Fischer, 1990).
2. One exception is the study by Petek and Petak (2009), which analysed policy formulation and adoption within the Croatian public administration system. They concluded that policy analysis has been in its infancy, which led to institutional deficiencies in coordination and failure to introduce a Regulatory Impact Assessment (RIA).

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4. Positive and negative feedback in policy formulation
Richard Burroughs

INTRODUCTION

The governed and those governing are connected through feedback. This chapter examines the interplay of positive and negative feedback over time with particular attention to the role of policy adoption in resetting the views of those governed. Establishing this new perspective on feedback over time provides a basis for understanding how and why governance takes certain paths.

The context for understanding contemporary use of feedback and policy formulation extends back over three quarters of a century. Schattschneider (1935) juxtaposed the limited economic value of tariffs to the nation with their vast success in cultivating interest groups who benefited from the introduction of tariffs. He observed that 'New policies create new politics' (Schattschneider, 1935, p. 288), and those new politics advanced the needs of special interests not the nation. Special interest groups advocate for policies that favor their needs over those of the broader public. Feedback from special interests favoring the tariffs shaped policy going forward.

By focusing on three functions of government – distributive, regulatory, and redistributive – Lowi (1964) isolated settings where interests could direct resources. The distributive function, characterized as decisions made in the short run without consideration of the limits of resources, is calculated to serve clienteles by distributing resources to them. One consequence of the distributive function is feedback by favored recipients to continue and expand the activity. The regulatory function shapes alternatives or costs for private entities equally by specifying government action through law. For example, in theory, all pollution discharges are regulated to the same standards. If a new policy or law changes the nature of a regime from distributive to regulatory, Lowi (1964) anticipates that there will be a period of negative feedback by those interests who are adversely affected by the change. A final function, that of redistribution, seeks to provide equality among classes through actions such as income taxes, and creates its own distinctive feedback.

The cyclical relationships between the kind of information that is fed back concerning the consequences of a decision and the extent to which it influences support of the authorities are subjects of the feedback loop introduced by Easton (1965). He anticipates that authorities will mandate changes that limit the push back by those affected. In Easton's feedback loop, executive actions influence the behavior of individuals or groups, which – through interest groups, parties, or the media – communicate their reactions back to the executive.

Pierson (1993) further refines the discussion of feedback by recognizing that action, when targeted toward resources, includes materials, access to authority, or incentives for those governed to make particular choices. When a policy's impact is large and traceable,

feedback spawned by the distribution of resources becomes evident. Those responding in this setting include interest groups, government elites, and citizens. Interest groups expect financing, access, new organizing niches, and other spoils. Governmental entities seek to expand administrative capacities. When the mass or general public is aware of policy changes, can trace them to specific sources, and supports them, they may lock in the policy over an extended period.

In summary, early publications on feedback established the respective roles of the governed and the authorities. They also defined the information flow or feedback among participants. Executive actions lead to behavior change of groups or individuals at the same time as feedback from them affects the behavior of authorities. The objective of feedback is to control resources and their distribution within society and government.

The explicit recognition that the setting for feedback undergoes major change at the time when the new policy is adopted offers an avenue for further insight. I propose that feedback stages be delineated with respect to the timing of adoption for a new policy (Figure 4.1). Prior to the policy change feedback is prospective in the sense that it is directed to policy design. All policy formulation depends on prospective feedback. After the policy change is adopted the feedback becomes retrospective because the discussion shifts to defining intent through the details of implementation. Prospective, positive feedback supports a new problem definition and solution. It provides a means for an interest group not only to advocate for a change in policy but also provide the details of preferred actions. Those interests supporting the status quo at the prospective stage will defend the current policy by providing negative feedback to ideas that would change it. When the policy change is adopted many issues of intent are resolved and the discussion shifts to implementation. Those in support of the new policy will provide retrospective, positive feedback to advance the change as much as possible while resisting new ideas that would

Passage of time		Positive feedback	Negative feedback
	Prospective feedback: problem definition or solution design	Support for new problem definition and solution	Protection of historical policy by opposition to proposed policy innovation
	POLICY CHANGE ADOPTED		
	Retrospective feedback: implementation	Support for aggressive implementation of recently adopted policy	Attempts to derail implementation of recently adopted policy

Figure 4.1   Feedback. Targets for feedback differ as the policy discussion shifts in its focus over time

undo their gains. Those interests who have been opposed to the new policy will attack those aspects of implementation that threaten them the most.

The temporal separation (before/after policy change), together with the positive versus negative dichotomy of feedback, provide new perspectives on formulation. While interests may have somewhat stable values, adoption of a preferred major policy change can convert the favored interest's positive feedback for a policy innovation to negative feedback to additional change that might jeopardize advances that have been codified. For example, environmental groups in the United States may be unwilling to reopen the Clean Water Act for revision because they fear the legislative branch would undo advances achieved decades ago.

The chapter will first describe participants in the policy process and their primary roles in policy formulation through problem definition and solution design. Feedback flows determine what problems are defined and selected as well as the preferred solutions to them. Next, I propose a policy change framework that explicitly incorporates the temporal dimension of feedback as introduced in Figure 4.1. Finally, the framework is applied to social benefits policy and to environmental policy to show how negative feedback can shape policy formulation if directed to a receptive venue. The cases establish the role of retrospective negative feedback and supplement the more commonly observed cases where positive feedback to a policy innovation prospectively shapes formulation.

PARTICIPANTS: PROVIDERS, RECEIVERS, AND FLOW OF FEEDBACK

Participants include mass publics, interest groups, policy designers, street-level bureaucrats, and recipients as explained in the paragraphs that follow. An individual may be in more than one category. Participants provide, receive, manipulate, or respond to feedback. They may be in or out of government. Those inside government commonly include Congress, political appointees, and bureaucrats, which are a form of political elite (Pierson, 1993). When linked to similar interests outside government, the elites form policy networks.

In the feedback loop diagnosis, the general or mass public plays a role as both a recipient of policy decisions and an actor in shaping policy formulation. For Pierson (1993), the informational content of policies establishes the political identities of mass publics. Campbell (2012) recognizes pathways for the mass public to be involved in policy by affecting resources, feelings of engagement, and opportunities for mobilization. For Pacheco (2013), policies change mass attitudes. For example, smoking bans influence basic beliefs about what is right or wrong, as well as what is safe or unsafe. The mass public forms a new set of judgments about future interventions once the ban is in place.

One may also see policy development through the more restricted lens of interest groups, some of whom function as elites. Interest groups act to advance the needs of their constituents. If well organized and represented, they can shape many activities of government. In the United States their participation is invited through the right of the people to petition the government. In the case of tariff deliberations, for example, Schattschneider (1935) recognized that direct access to a legislative committee with more information and discrete goals creates special opportunities for elite feedback to prevail. But this does not necessarily result in homogeneity in points of view. Elites with different

values provide conflicting feedback. In fact, the Obama administration's currently proposed Trans Pacific Partnership illustrates the phenomenon, where businesses favoring free trade confront unions concerned with employment in the United States.

Ultimately, policy designers select instruments to reach broadly shared goals in the problem definition. Traditional policy design studies have identified the primary actors as politicians, government administrators, and experts within government (Howlett, 2014). Many others participate in the policy advisory system, including non-governmental organizations, think tanks, professional organizations, political parties, and acquaintances of the decision-makers. The contribution from those outside government is feedback and the influence of this feedback varies based on the actor's positioning within society. For example, local ecological knowledge – the insights from people living with a natural resource – does not receive consideration by most in government, as feedback from credentialed scientists is preferred.

Not only do groups autonomously form outside government to advance their interests, but also, as Schneider and Ingram (1993) observe, the groups themselves may be socially constructed and categorized by a policy. They are often passive participants in the sense that others condition their roles. Advantaged groups embody stronger political power, are well organized, and seek to be characterized as deserving. Contenders are politically powerful, but have troublesome attributes, as observed in Wall Street bankers, among others. Those who are politically weak but deserving are dependents such as mothers and children. Gangs and criminals behave in undesirable ways that make them politically weak. Since the groups are imbued with differing levels of social acceptance and political power, the feedback they provide will be accorded different levels of influence.

Participants in feedback can also be aggregated through economic, behavioral, or ideational means (Maor, 2014). A group could advocate for a policy that, while important to the group, has limited fundamental worth to society. Special interests shared by networks of participants exemplify this phenomenon. Policy networks or subsystems link those in government with those outside and arguably are the engines of policy creation through feedback operationalized within the network. In fact, resolution of conflicts within networks affords those who participate with the ultimate instrument of power, that of defining the alternatives (Schattschneider, 1960).

A final category of participant, the street-level bureaucrat (Lipsky, 1971), receives feedback and, subject to the discretion in policy instruments, administers the policy in ways more compatible with the views of the ultimate recipients. Since participants define problems through feedback, their role in that process is emphasized in the next section.

PROBLEMS: THE ROLE OF PROSPECTIVE FEEDBACK IN IDENTIFICATION AND DEFINITION

Participants may share a common focus on problems although they invariably have different definitions in mind. At the base of problem definitions are unsatisfactory trends and conditions within society (Clark, 2002; Lasswell, 1971). If trends are worsening (poverty, water quality, inequity, and so on), and the conditions that determine the trends can be discerned, then alternatives for corrective actions can follow. Lasswell (1971, p. 56) defines a problem as a 'perceived discrepancy between goals and an actual or

anticipated state of affairs.' Feedback alerts decision-makers to problems. Weiss (1989) explains this phenomenon further by seeing problem definition as a weapon to mobilize participants and, in the hands of policy entrepreneurs, to be used to build coalitions. The way a problem is defined often structures the solutions that can be adopted. Rather than locking in a problem definition at the beginning, 'participants in the policy process seek to impose their preferred definitions on problems throughout the policy process' (Weiss, 1989, p. 98).

The types and pathways for feedback in problem definition vary. For Kingdon (2003), government officials are influenced by their own observations or external feedback as might apply to a program with high costs or unanticipated consequences. At times, implementation is fraught with complaints and/or failures observed through evaluation and monitoring (Kingdon, 2003). Since problem definition spawns policy, feedback from monitoring is key to policy redefinition.

Once in play, a problem definition may be expected to attract feedback that furthers the needs of participants. If benefits are large and traceable (Campbell, 2012), one can expect feedback to maintain or enhance the benefits for favored interests. Similarly, problem definition is an opportunity to strengthen alliances or networks and extend the duration of programs. Feedback-enhanced programs range from largely invisible tax expenditures such as college tuition tax credits to highly visible social security benefits (Campbell, 2012). The higher the profile of the program, the more likely it will attract feedback.

Robust interactions through feedback do not assure that a problem will gain a place on the agenda for formal consideration. However, salience arises from political debate, the appearance of credible new evidence, or the emergence of familiar evidence for a new group of policy makers (Baumgartner & Jones, 2002). Each may be viewed as a form of feedback. Elevation to the agenda occurs when previously ignored information captures the discussion through a focusing event such as accidents, protests, or scandals (Kingdon, 2003). For example, a nuclear power plant accident will likely lead governments to reassess the technology.

Finally, problem definition and the feedback that goes into it can engage at several levels. Van der Knapp (1995) diagrams the effects of feedback influenced by the single and double-loop systems approaches of Argyris and Schon (1978). Single-loop activities gradually improve existing policies; feedback here is referred to as goal-seeking feedback. Double-loop activities, in contrast, alter the organization's norms, policies, and objectives; in double-loop learning the useful feedback can change objectives as well as means, and is referred to as goal-changing feedback. By recognizing the distinctions between goal-seeking feedback (single-loop learning) and goal-changing feedback (double-loop learning), van der Knapp (1995) focuses attention on the targets for and hence the breadth of feedback. Feedback directed at problem definition tends to be the most expansive because goals and means are both in play, making it similar to double-loop learning. The problem definition adopted can frame the solution selected to match the values derived from feedback.

SOLUTIONS: VALUING POLICY INSTRUMENTS THROUGH FEEDBACK

With a problem defined and on the agenda of government, interests direct their focus to specifying solutions that meet their needs. Solutions utilize tools or instruments to correct the underlying causes of problems. Consequently, one may view the selection of tools as a single-loop process. Topics such as means testing versus universal benefits or regulatory action versus markets are part of solutions and are subject to feedback from citizens and other forms of review (van der Knapp, 1995).

Considering the relationship between goals and means in detail establishes the context for choice (Cashore & Howlett, 2007; Howlett, 2009). Once the targets or measures for the aims of a policy are known, the identification of tools (regulation, information, subsidy, public enterprise, and so on) follows. Instrument choice is the principal activity in policy design (Howlett, 2014). Ultimately, a proposed solution has meaning when the tool is calibrated through identifying the magnitude of funding, personnel, and other indices. Effective tool selection can be guided by coherent, consistent, and congruent aims matched to means, with limited and less coercive choices preferred (Howlett & Rayner, 2013).

As Peters (2002, p. 552) notes, 'Policy instruments are not politically neutral.' This means that feedback from the affected parties will play an equally important role in tool choice as in problem definition. Peters (2002) identifies three dimensions that link politics to instruments. First, an interest group can seek to minimize visibility of the tool. This often becomes apparent as those paying and those benefiting become aware of their respective situations. Second, the extent to which a tool operates directly on a target will determine the involvement of those affected. Finally, automaticity allows providers to avoid specific decisions, thus saving on administrative costs. Tools rich in automaticity spell out the details of implementation and make execution easier.

Since tool choices are political choices, the values of those providing feedback at the time of selection cannot be ignored. How the program will work depends, to a large extent, on the values advanced. This creates tension among interests' needs for efficiency, equity, and administrative ease as well as other considerations that influence tool selection (Salamon, 2002). Once contextualized in this manner, feedback-driven tool selection is an arena where the selection process itself can be manipulated to build support for a program. Peters (2002) explains multiple rationales might be applied in this process. By selecting a tool that recipients or providers such as government contractors prefer, an influential constituency for the policy may arise. For example, contractors support environmental solutions rich in infrastructure. Alternatively, offering a tool that includes funding to a broad base of society, as in pork-barrel approaches, can generate support from the public. Finally, a policy entrepreneur could select an instrument that involves the agency most likely to move forward in a manner that extends across the interests of multiple groups. In this latter case the agency becomes an advocate.

Using solutions as a means of building political support can have several objectives. One could be to build capacity of the state (Beland, 2010) to continue to do what it has done in the past. Previous solutions lock in future alternatives and make the system path-dependent. In addition to maintaining the trajectory, solutions may be purposefully designed as sticky (Jordan & Matt, 2014); for example, policy adhesion can be enhanced

when credible commitments are assembled around a new direction. Also, if target groups make sunk investments that are monitored over a long time, then those same groups will become supporters of the new policy. Firms investing in pollution control technologies might adopt such a stance.

Conversely, poorly designed or inadequate solutions undo policy changes. For Campbell (2011), a half solution that is politically feasible may simultaneously fail to solve the problem and undercut political will to complete the policy change. Lack of effective action produces a loss of interest, and policies fail to gain a place on the agenda where action might be called for (Patashnik, 2008). Spending cuts, restructuring to minimize government's role, or shifts in political environments hamper effective solutions. Each embodies a form of retrenchment (Hacker, 2004), which can be worsened by administrative discretion.

Selection of the tools or instruments that have been matched with aims or goals produces a regime. For May (2015), regimes are governing arrangements that distribute benefits or impose burdens. Weaver (2010) focuses on their attributes as political institutions, their leadership, and their administration. The institutional mechanisms of a regime structure authority, oversight, and public engagement. They specify relationships, coordination, networks, and contracts to shape human behavior going forward. So, it is no surprise that institutional mechanisms can become the subject of feedback. As May (2015) notes, feedback may be assessed not in terms of the mechanics and effectiveness of the policy per se, but rather in terms of its ability to garner continued political support through feedback. Technically successful programs that lack political support, as measured by feedback, will become vulnerable.

Weaver (2010) hypothesizes that regime transition is a function of a combination of the sign of the feedback, the availability of incremental reform options, and the practicality of an alternative regime. He observes that feedback may be inspired by three different types of considerations: political (coalition or interest support), fiscal (budget), and social (costs or benefits to groups). Interestingly, negative political, fiscal, and social feedback produces regime change when satisfactory incremental options are available and transitions to a new policy are possible. The values at play and the solutions selected can best be viewed before and after policy change. The framework, described in the next section, emphasizes the importance of time in understanding the role and direction of feedback.

POLICY CHANGE FRAMEWORK: POSITIVE AND NEGATIVE FEEDBACK OVER TIME

In this section I present a framework for mapping feedback through time and consider the effects of positive and negative feedback on formulation of policy. The science and engineering understanding of feedback is that positive feedback will increase the magnitude of a variable, and, because of overall system functions, the original change will cause even greater positive increases in magnitude (Åström & Murray, 2008). For example, increasing the temperature of the earth melts additional frozen land in the north, which releases methane, a powerful greenhouse gas, and so the temperature of the earth goes up even more. For the scientist or engineer, negative feedback results when the initial change in magnitude of a variable reverses the direction of change in the system. Again using

Table 4.1   Feedback signage to policy innovation across interest groups and time

	Interest1	Interest2	Interest3	Interest4	Interest5	Interest6	Notes
Time 0	A	A	+	A	A	A	
Time 1	A	−	+	+	−	A	
Time 2	+	+	+	+	−	A	Policy change
Time 3	+	+	+	−	A	A	
Time 4	+	+	−	A	A	A	
Time 5	A	−	−	+	+	+	
Time 6	+	A	−	+	+	+	Policy change

Note: (A) interest group that is ambivalent or unaware of the policy innovation; (−) negative feedback to policy change; (+) positive feedback to policy change.

temperature as the variable of interest, one might speculate that as the earth warms, more clouds form and reflect solar energy. As a result of cloud formation, less energy reaches the surface of the earth to warm it, and the shift to higher temperatures is retarded as a consequence of the negative feedback.

For the purpose of the framework advanced here, and consistent with most of the policy literature on feedback, positive feedback supports a new innovation in policy whereas negative feedback to the innovation preserves the policy currently in force. More generally, negative feedback is a lack of acceptance of a policy that is proposed or implemented. After a major policy change occurs, those interests previously promoting the change through positive feedback may provide negative feedback to additional new ideas that could undo the change they supported. In short, the contexts for feedback are reset when significant policy changes occur.

In Table 4.1, the preferences of interests in different periods of time are presented. Interest groups monitor trends and conditions that affect their needs. Interest groups identify problems, advance solutions, and provide feedback consistent with their needs. If several interest groups align their views, a policy change becomes possible. In Table 4.1 at time 0, an interest group supports a policy innovation. Support for the policy innovation spreads to other interests during time 1. As Schattschneider (1935) originally observed, the policy design and its implementation can be calculated to produce or expand support, as indicated by the increased number of assenting interests. This expansion of prospective positive feedback can be explained when interests focus on new attributes of the problem. When prospective positive feedback from several interests coincides for policy change, a broadly acceptable problem definition can move to the policy agenda. The consolidation of multiple interests in prospective support of a policy change – positive feedback – usually evolves over a period of years. External events or crises can play a role in sealing the arrangements. At that point, the specification of alternative responses or solutions becomes part of a decision process such as legislation. Ensuing action passes or reforms a law and triggers implementation. At time 2 the policy is adopted and at time 3 the policy is implemented. Throughout adoption and implementation continued support for the innovation flows from those in support of the policy change, but they also have to defend against further alterations that would undo their recent gains.

At time 4, usually many years after time 0, dismay with implementation and value shifts within the society can produce a low level of support for the policy change undertaken at time 2. New policy alternatives form. At time 5, interests align in support of a new policy alternative, ultimately propelling the system to another round of change at time 6.

This framework not only distinguishes positive and negative feedback but also relates such feedback to the time before and after a significant policy change. Prospective positive feedback pulls the system toward new ideas. The new ideas, once in place, draw continuing support for aggressive implementation from supporters who, at the same time, fend off additional change that would denigrate the change as it is implemented. Within this context, prospective feedback is characterized by anticipation of the likely consequences of a new policy, while retrospective feedback is based on direct experience after the policy is adopted and as it is implemented.

Since dominant feedback flips between positive and negative, it is important to understand the causes for those changes in signage. In policy evolution, the feedback sign, positive or negative, that an interest applies can shift depending on the target. Policies that promote civic engagement, interest group power, and enhanced governance capacity can create positive feedback for the policy innovation (Mettler & SoRelle, 2014). Combinations of payments, goods and services, rules, and procedures augment this strategy. If a positive response to policy change is desired, Patashnik (2008) and Patashnik and Zelizer (2013) find that stable groups with sympathetic mindsets that make specific investments in the new order will entrench the reform. For example, maintaining support throughout implementation for acid rain policy involved monitoring, enforcement, and, most importantly, auctions that allowed actors to use and trade allowances as they saw fit (Patashnik, 2008).

In fact, in some cases, policy formulations can be structured to intentionally generate reactions that will make the policy stick. The appearance of increasing returns for favored interests, also known as self-reinforcement, leads to growing support for a policy change (Pierson, 2000). Jones et al. (2014) describe three phases of self-reinforcement, which they call a policy bubble. Bubbles emerge with a compelling story line consistent with beliefs and media support. As bubbles mature, public investment continues at a rate that exceeds the benefits produced. If there is an ideologically effective causal story with difficult to measure results and limited press inquiry about accomplishments of the policy, the bubble continues to expand. Ultimately, as inefficiencies become apparent, counter-mobilization grows. The bubble will collapse or, alternatively, gross overinvestment will be incorporated in government policy for an extended period (Jones et al., 2014).

In the context of this framework, signs of feedback are expected to change while the positions of interests remain relatively stable. Once a policy change has occurred, unavoidable costs of an otherwise desirable policy or unanticipated consequences can result in it falling out of favor (Weaver, 2010) and a change in policy gaining support. Furthermore, demands advanced by new groups can accelerate feedback and can force the replacement of a policy. If the per capita benefits of the program are small or the delivery times are long, then the potential for dissatisfaction grows (Patashnik & Zelizer, 2013).

In addition, dismay can grow from the operation of the program itself (Jacobs & Weaver, 2014). First, groups that are organized and attentive find over time that policy fragmentation and electoral pressures create losses for them. Second, bad experiences and

loss aversion coupled with undesirable framing by elites can influence the public to retreat from a policy. Finally, the policy can be undermined because new alternatives become apparent and positive feedback aligns around them. In fact, as shown in the cases below, dissatisfaction is a powerful catalyst for policy innovation.

SOCIAL BENEFITS: NEGATIVE FEEDBACK IN THE CREATION OF NEW POLICY

Skocpol (1992) shows how the alternation of dominant feedback sign shaped nascent welfare policy in the United States. After the Civil War, Union soldiers and their dependents were granted generous benefits, a policy innovation catalysed by broad support for those who had served. Providing benefits to this group resulted in the rapid growth of the Grand Army of the Republic (GAR), a group positioned to maintain the benefit. In terms of the framework above, this case illustrates the alignment of interests, the creation of policy change, and the protection of the change through organizations within society.

By the early 1900s, however, Skocpol (1992) finds that efforts to expand the program beyond Union veterans to pensions, health care, and unemployment insurance were untenable. Implementation of the benefits program for Civil War veterans had become steeped in patronage politics and for some was the epitome of corruption. Reform-minded individuals, legislatures, and the courts rejected expansion of it into a general welfare program.

Instead, many interests now coalesced around a new social policy for actual or prospective mothers regardless of their ties to wage earners (Skocpol, 1992). Importantly, the failure of the program for Civil War soldiers triggered an era in the 1910s and early 1920s when geographically widespread women's groups, operating at local, state, and national levels, succeeded in advancing this new maternalist approach to social benefits.

Interestingly, Weaver (2010) finds negative feedback contributing to change when inexpensive, incremental reforms can be accomplished without significant political opposition. At least in some aspects of the trade-off between protecting soldiers or women, the viability of policies for the latter made the transition away from the corrupted veterans' benefits program more likely.

Consistent with the framework advanced in Table 4.1, this case illustrates the opening of space for a policy innovation after the initial policy change triggered widespread dissatisfaction. For a number of years, maternalist welfare attracted support. Sadly, as Skocpol (1992) shows, by the late 1920s a failed legislative initiative and administrative changes among federal agencies reversed this trend and shifted the focus to male-dominated aspects of the workplace and of government.

In summary, the evolution of early welfare policy was shaped by a failed Civil War veterans' support program that opened possibilities for achieving a similar end through alternate means. In terms of feedback signage, negative views of Civil War benefits created positive support for the alternative maternalist policy.

ENVIRONMENTAL POLICY: SWITCHING VENUES TO ENHANCE FEEDBACK

In addition to making their views known, interest groups have the option of selecting the unit of government that is appropriate as a target for feedback. For Burroughs (2015), a combination of feedback changes and venue switches determine the evolution of environmental policy related to offshore oil exploitation. The venues for feedback are state government as well as the legislative, executive, and judicial branches of the federal government. Each venue will have differing value orientations, and switching among them allows interests to seek the most receptive audience for the views they wish to promote.

In the 1950s, US offshore oil policy focused upon state versus federal ownership with orderly leasing and effective revenue collection. By the 1970s, the frame expanded to include environmental concerns through Environmental Impact Statements (EISs), a revised OCS (Outer Continental Shelf) Lands Act with new environmental duties, and, most importantly for this analysis, the passage of the Coastal Zone Management Act in 1972. Through the latter, federal activities that affect a state's coastal zone shall be 'consistent' with the policies in the state plan if it has been federally approved (USC 1456 (a) (1) (A)) and dispute resolution can occur at the Secretary of Commerce's office (CFR 930.121). The consistency provision alters state versus federal power in coastal environments by allowing states to compel the federal government to act in ways the states demand. This is contrary to the expectation that federal authority is supreme. For the states to gain this power they must create a state coastal management plan and obtain approval for it from the federal Department of Commerce. Thus, a Department of the Interior action like leasing of federal subsea lands seaward of state waters for oil development triggered a dispute concerning the consistency provisions of the law. Many states, California a leader among them, interpreted consistency in such a way as to limit offshore leasing that could cause environmental damage to coastal lands and waters. Many states found offshore oil lease sales to be in violation of consistency. Thus, the innovation of consistency, in the Coastal Zone Management Act, confronted historical Department of the Interior policies influenced to a large extent by the needs of the oil companies.

However, in 1984, the Supreme Court decided in *Secretary of the Interior v California* (464 US 312, 1984) that oil lease sales do not directly affect the coast. Consequently, the consistency section of the law did not apply to the Department of the Interior's sale of oil drilling rights in federal waters off the coast of California. This was unequivocal support of the existing policy of the time and strong negative feedback to the policy innovation that would mandate consistency. Not surprisingly, environmental proponents responded to negative feedback in this venue by switching to a more receptive arena, the Congress.

In a venue switch that responded to earlier lower court decisions limiting states' consistency rights, environmental interests brought their concerns to the legislative branch. Congressional appropriations powers eliminated spending for leasing off specific states, thereby rendering the subsequent Supreme Court determination moot. In fiscal year 1982, the Interior Appropriations Act (PL 97–100) withheld funding for new leases off California and in subsequent years moratoria were extended to many other areas of the coast, a practice that continued annually through 2008 (Burger, 2011). In short, the venue switch created a circumstance where the policy innovation of consistency was accepted.

The jousting between the states and the Department of the Interior that resulted in the Supreme Court decision was also playing out in the Department of Commerce, where the Secretary of Commerce resolved disputes between the states and the federal Department of the Interior (16 USC 1456 (h)). From 1984 to 1990, the states of Alaska and California challenged federal decisions related to exploration, development, and production plans for oil and gas as well as the discharges associated with them. During this period, resolutions by the Secretary of Commerce favored energy development, not too surprisingly given the earlier Supreme Court decision.

In the years since the Supreme Court decision, environmental groups and others sought reform of the coastal Act. This nearly two decade-long period of uncertainty closed with enactment of the Omnibus Budget Reconciliation Act of 1990 (PL 101–580) on 5 November 1990. Through it the Congress and the President reversed the Supreme Court decision. A federal lease sale for offshore oil development now required a consistency review by the adjacent states (Archer, 1991; Kitsos et al., 2013). The passage of the appropriations Act codified the policy innovation.

From 1991 through 2008, no issues related to lease sales reached the Secretary of Commerce, since the change of law made it clear that the federal agency would have to negotiate with the state before moving forward with a sale. The change in the law and in the secretarial responses to appeals affirmed state authority over federal decisions affecting the coast. More important, these actions sustained and enhanced a policy innovation at the core of coastal policy in the United States. Only a few years earlier the future of consistency had been in doubt.

This case emphasizes the importance of venue switches in feedback. State enthusiasm for the new consistency policy confronted Department of the Interior and federal court reluctance. Ultimately, the policy innovation triumphed through a venue switch and a further round of legislative reform. Feedback analysis isolates determinative events post-passage of the initial law, and it structures consideration of them through identification of specific arenas, actors, and mechanisms. After the supporting clarification of the law in 1990, consistency disputes that rose to the Secretary of Commerce were resolved with overwhelming support for state positions. By integrating these events, feedback analysis illustrates a lock-in (Pierson, 1993) of the policy innovation and, as defined by others (Patashnik, 2008; Patashnik & Zelizer, 2013), results in an entrenched reform favoring state regulation of offshore oil development.

CONCLUSION

Feedback is a response of the governed to governance as mediated by officials. It informs problem definition, solution design, adoption, and implementation. Feedback originating from or given credence by elites in the government or networks beyond it tends to be most persuasive, but mass publics – when aware of the sources for and beneficiaries of policy change – can also become powerful influences. Five features become apparent by calibrating feedback with respect to the time of a major policy adoption and considering circumstances relevant to policy formulation.

First, the characteristics of feedback vary depending on the target and setting. In problem definition, feedback identifies unsatisfactory trends and conditions that need to

be remedied in a policy change. Prospective positive feedback supports policy innovation and advocates for adoption. Intensified feedback in times of crisis or rapid value shifts shapes the problem and influences ensuing actions. Feedback can be the source of new evidence or the pressure that forces decision-makers to incorporate evidence that is new to them. In the most expansive form, prospective feedback will drive consideration of basic missions and goals. In other forms, feedback can be directed to means such as efficiency, equity, and administrative ease. The tools adopted in a solution are not value free and will also elicit feedback. The designers' goals for the tools – such as building capacity for the state, creation of a sticky solution that is unlikely to be undone, or finding a tool that will elicit positive feedback – all come into play. Feedback responses along all these avenues control the nature of the solutions adopted and the tone of the policy going forward.

Second, interest group feedback varies over time. Prospective and retrospective policy feedback as well as positive and negative signs form the basis for a new perspective on commonly observed features. The framework (Table 4.1) keys the actions of interest groups to the time before and after major policy change. By explicitly adding the time dimension and the signs of feedback across multiple interests, a new framework calls attention to the coalescence of support at the time of adoption and its decline after that point. After policy adoption, the consensus declines over time through value shifts within society, experience with implementation, and other factors. Ultimately, another round of policy change ensues.

Third, when a new policy is adopted, those interests who advocated for it have a stake in its success. As a result, they may respond with negative feedback toward additional change, which could undermine the gains recently obtained. Those advocates who believe the policy change did not go far enough might be in an ambiguous position where they support the new policy but advocate for further change to extend the policy to further advance their goals. In sum, feedback to support a policy innovation may shift from positive advocacy to protection of the new status quo. This comes about not because a dominant interest changes its view, but rather in response to those views being accepted and adopted in formal policy.

Fourth, when applying this framework to social benefits policy or to environmental policy, the power of negative feedback stands out. Without the clear dissatisfaction from specific interests, a change would not have been forthcoming. For example, corruption related to the Civil War veterans' benefits changed the direction of national policy in the early 1900s (Skocpol, 1992). Through women's organizations, the policy innovation related to women and children was advanced in place of benefits to males. Similarly, dissatisfaction with the rejection of state environmental concerns by the Department of the Interior and the Supreme Court ultimately caused adoption of an environmental policy innovation known as consistency. In both of these examples, negative feedback from interests whose views were initially excluded reshaped the direction of formulation.

Finally, the environmental policy example demonstrates that interests not only have the ability to identify directions for policy, but also that in some instances they have the power to select the feedback venue where their view will be most effective. Venue shifting moved the discussion of oil development from the courts to the Congress. The Congress suspended funding for certain oil development and ultimately revised the law to clarify the state role in oil decisions that had long been sought by environmental interests.

Analysis of feedback provides new insights concerning the causes and effects of policy

formulation. In an ever-crowded policy space, formulation will inevitably trigger an increasing number of feedbacks as any policy innovation confronts multiple interests protecting the status quo. Continued expansion of the field will benefit from refining the role of feedback with respect to problem definition/solution design and the time-sensitive nature of feedback on the policy process.

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PART II

WHAT IS FORMULATED: CHOOSING POLICY INSTRUMENTS AND POLICY GOALS

5. Problem delimitation in policy formulation
Arnošt Veselý

> It is a familiar and significant saying that a problem well put is half-solved . . . Without a problem, there is blind groping in the dark. John Dewey (1938 [2008], p. 173)

INTRODUCTION

The idea that a well-defined problem is half-solved is not new and variations of Dewey's quotation can be found in much older literature. Thus, it is hardly surprising that the formulation of a policy problem in policy analysis ('what is the problem?') is seen not only as the initial but also as a crucial step that determines all other activities in policy formulation. The concept of the 'problem orientation' was the keystone in Harold Lasswell's vision of policy sciences, and for many it still animates the field (Turnbull, 2008). Textbooks on public policy analysis congruently stress the key role of correct formulation of problems for policy design: 'policy analysts fail more often because they formulate the wrong problem than because they choose the wrong solution' (Dunn, 1988, p. 720). In this sense, problem formulation takes priority over other activities of policy formulation, such as identification of variants and choosing among them.

Yet, the literature on problem formulation is very diverse and labyrinthine. Various authors use different terminology and approaches to the subject. Some authors talk about 'problem structuring' (Dunn, 2004), while others use terms such as 'problem definition' (Bardach, 2000) or 'problem modelling' (Weimer & Vining, 2005). More important, even the same term can be understood differently (Table 5.1).[1] To complicate things further, the relevant literature is scattered across different fields and thus various contributions are often discussed in isolation.

For this reason, I use the general term 'problem delimitation' to encompass all concepts mentioned above. I understand problem delimitation as a multidisciplinary field of study that seeks to analyse and understand causes of public policy problems, analyse and evaluate their different subjective representations, and try to suggest their formulation. Problem delimitation involves both subjective and objective elements as well as non-normative and normative ones.

This chapter is structured as follows. First, I distinguish two streams in thinking on problem delimitation, termed as 'political' and 'policy' streams. Then I show the different conceptualizations of 'policy problem', and show how they are related to the two streams. I then describe the two approaches in more detail. I conclude by showing how these streams complement each other.

Table 5.1   Various definitions of problem formulation and related terms

The term problem structuring is used here to describe the process by which the initially presented set of conditions is translated into a set of problems, issues and questions sufficiently well defined to allow specific research action	Woolley and Pidd (1981, p. 197)
[Problem structuring] . . . refers to the process, whether formal or informal, by which some initially presented conditions and requests become a set of issues for detailed research	Pidd (1988, p. 115)
The task of problem definition requires a careful consideration of the parameters of an issue and the context within which a recommendation for a policy change will be made	Irwin (2003, p. 36)
Problem definition is, in this sense, a never ending discourse with reality, to discover yet more facets, more dimensions of action, more opportunities for improvement	Dery (1984, pp. 6–7)
'Problem definition' has to do with what we choose to identify as public issues and how we think about these concerns	Rochefort and Cobb (1994, p. vii)
Solving an unstructured problem requires problem structuring, which is essentially political activity, to produce new insights on what the problem is about	Hisschemöller and Hoppe (2001, p. 51)

DIFFERENT STREAMS IN PROBLEM DELIMITATION

The problem delimitation literature is very diverse and dispersed. Scholars are substantially divided in their epistemological, ontological and normative assumptions, which leads to quite different understandings of the concepts 'policy problem' and 'problem delimitation'. Sometimes the usage of these concepts is straightforward, especially in policy analysis textbooks (Bardach, 2000; Dunn, 2004). Often, however, these concepts are part of broader theories of policy making, and are hardly comprehensible without referencing to it (Bacchi, 2009; Hoppe, 2010; Turnbull, 2006). Most of the problem delimitation approaches are embedded in a particular discipline (such as public policy, political science or public administration) and theoretical approach (positivist, interpretive, post-structuralist). Some of them blend different approaches into new ones.

Nevertheless, at the risk of oversimplifying, we can identify two major divisions in the literature. The first concerns the aim of the problem delimitation, and reflects Lasswell's classical (1971) distinction between two strands in policy studies: 'knowledge of policy' and 'knowledge in policy'. In this respect, there are two major streams of literature with different aims. These streams can be labelled as 'political stream' and 'policy stream' (Veselý, 2007).

The political stream concerns the 'knowledge of policy'. It aims to analyse and understand how concrete public issues are identified, conceptualized and defined by different actors, why certain societal conditions become defined as public problems (and others do not) and what are the reasons and consequences of different definitions or frames of public issues. The political stream is mostly analytical and non-normative. Its focus is scientific rather than practical, seeking to describe and explain different definitions or frames of public issues.

Table 5.2   Different approaches to problem delimitation

	Positivist approach ⟷	Post-positivist approach
Political stream	Rochefort and Cobb (1994)	Stone (2002)
	Peters (2005)	Hoppe (2010)
Policy stream	Rosenhead and Mingers (2001)	Bacchi (2009)
	Bardach (2000)	
	Dunn (2004)	

The policy stream, in contrast, is more practical and aims at providing a formulation of public problems so that the problem can be effectively and efficiently solved. Although the policy stream also involves an analysis of different subjective approaches to problems, the basic motivation is to help to find a solution for a public issue, not to understand why a certain public issue is defined exactly in this way by a particular actor. Authors from the policy stream are mostly concerned with the methodology and methods of problem formulation (for example, Bardach, 1981; Dunn, 1988). The basic concern is which methods to use, and how, when formulating policy issues for policy makers.

The second major division lies in ontological and epistemological assumptions. Again, with a certain simplification we can distinguish between the rational (positivist) approach (Bardach, 2000; Rosenhead & Mingers, 2001) and the interpretive (post-positivist) approach (Bacchi, 2009; Hoppe, 2010; Stone, 2002). Though both approaches treat policy problems as social constructs that involve both 'objective conditions' and their 'subjective interpretation', the emphasis differs profoundly. Authors with more positivist inclinations stress the social conditions that give rise to policy problems, assuming that there are some objective factors that influence how problems are – and should be – formulated. In contrast, authors with more post-positivist perspectives stress subjective interpretations and downplay social conditions. Of course, the problem delimitation terrain is much more nuanced. In post-positivist scholarship, Bacchi (2015), for instance, describes substantial differences between interpretive and post-structural approaches to problematization. Similarly, in the positivist tradition, there is a huge spectrum of approaches, ranging from a focus on 'objective conditions' to a systematic analysis of how these conditions are interpreted. Nevertheless, these two dimensions give us a very rough guide for classifying the main strands of scholarship (Table 5.2).

THE CONCEPT OF POLICY PROBLEM

The Concept of Problem

Because the concept of policy problem has been influenced by the understanding of the notion of 'problem' in other domains, it is worthwhile to briefly sketch the literature. While the term 'problem' plays a central role in many fields, with some exceptions (Agre, 1982; Landry, 1995), surprisingly few authors have attempted to define it. Duncker (1945, p. 1) in his classical work defined a problem as a situation where 'a living creature has a goal but does not know how this goal is to be reached'. According to Hayes (1980, p. i),

'whenever there is a gap between where you are now and where you want to be, and you don't know how to find a way to cross the gap, you have a problem'. In other words, problem is understood as a gap between the existing and the desired state of affairs. Smith (1988, p. 1491) defined a problem in similar terms: 'A problem is an undesirable situation that is significant to and may be solvable by some agent, although probably with some difficulty.'

Thus, most definitions understand a problem as a discrepancy between the way things are and where we want them to be (Pounds, 1969; Smith, 1988, p. 1491). While the existence of a discrepancy between an existing state and a desired (required) state is a necessary condition of a problem, many authors do not find it the only one. Some theorists (for example, Agre, 1982; Hattiangadi, 1978) consider 'difficulty' a necessary defining condition as well. Thus, many purposeful activities that we do to achieve a desirable state (such as picking up a book from the library) cannot be defined as a problem because they are rather routine activities with no intellectual or other requirements. A third condition is often added: that the discrepancy is significant enough to become part of the 'problem agenda' and motivate remedy efforts. In other words, 'problems involve more than mere wishes; they must be able to engage one's intentions and actions' (Smith, 1988, p. 1491). Finally, some authors add a fourth condition, namely, problem solvability. It must be possible to find ways to bridge the gap between what there is and what we want there to be. While unrealistic and unattainable goals (for example, to live until one is 150 years old) may motivate our action as well, we label them as 'wishful thinking' rather than 'problems'.

Landry (1995) summarizes the term 'problem' as the fulfilment of four interrelated conditions: (1) a past, present or future occurrence of one or more situations or events which are judged as negative by an individual or a group; (2) a preliminary judgement on the ways the problem can be addressed; (3) a clear expression of interest in doing something about the problem and committing resources (human or material); (4) uncertainty as to the appropriate action or measure and how to implement it. According to Landry, this general definition of a problem is broad enough to include different concepts of problems found in the literature yet at the same time it is not all-embracing. The second condition, for instance, states that a minimal sense of control over the situation or event must be felt. The key questions here are: 'Can we do something about it?' and 'Do we have any resources available for solving the problem?' If not, this condition is not fulfilled.

The Concept of Policy Problem

The aforementioned conditions for the concept of 'problem' have been, to various degrees, applied in the conceptualization of 'policy problem'. Dery (1984), in his now classic book *Problem Definition in Policy Analysis*, identified four different understandings of what a policy problem is: (1) problem as problem situations; (2) problem as discrepancies; (3) problem as bridgeable discrepancies; and (4) problem as opportunities.

First, policy problems can be understood as problem situations – as any state of difficulty, discomfort or undesirable conditions calling for remedy. In this sense, any difficult condition calling for action is a problem. According to Dery, a disadvantage of this definition is that it includes phenomena without a conceivable solution (referred to as 'puzzles' by Wildavsky, 1989). This notion of insoluble problems, Dery argues, is untenable.

Second, a problem can be understood not as a difficult condition in itself but as a discrepancy between what is and what should be. In other words, a policy problem exists where there is a gap between the current state and a desirable goal. According to Dery, this definition rests on the belief that goals exist prior to and independent of analysis, which is an unrealistic assumption. In reality the goals emerge only gradually in the process of problem definition. A policy problem is not equivalent with a decision problem in which the goal is clear from the beginning.

The third approach understands a problem as bridgeable discrepancies. A gap between what is and what should be is a problem only if it is accompanied by a conceivable solution. Dery challenges this conceptualization of problems, arguing that not all undesirable conditions are worthy of solving. Some solutions may be very costly or may produce many other problems. Thus, in reality we consider trade-offs between costs and benefits in solving different difficult conditions, and if the costs are too high (in relation to the benefits) we do not consider these conditions as policy problems.

Dery thus proposes a fourth approach. He suggests understanding a problem as an opportunity for improvement. While in the policy problem literature much attention is devoted to undesirable conditions and deficiencies, much less is written about positive opportunities for improvement. Nevertheless, if we get rid of what we do not want, we don't necessarily obtain what we want (Ackoff, 1978, p. 54). Thus, opportunities, and not only 'undesirable conditions', should be included in the process of problem definition. In other words, problem definition deals with both undesirable conditions and opportunities that are both solvable and worth solving. It involves searching, creating and initially examining ideas for solutions. Following Wildavsky (1966), Dery also argues that a comparison of costs and benefits of these possible solutions – and hence their 'worthiness' in terms of public policy solving – can be legitimately accomplished only through the political process. Dery advocates a pragmatic (in his words 'realistic') approach to a problem definition. A problem definition should be judged according to its usefulness, and 'a useful problem definition is one that proposes methods or directions for solving "the" problem' (Dery, 1984, p. 9). In sum, problem definition cannot be separated from the whole process of policy formulation. In fact, in this conceptualization, problem definition loses priority over other activities in policy formulation.

According to Dery, problems are defined, not 'identified' or 'discovered'. They cannot be detected as such 'but are rather the products of imposing certain frames of reference on reality' (Dery, 1984, p. 4). This attribute of problems is now generally accepted in policy analysis scholarship. Scholars from all strands do not take policy problems as 'objective entities' that are to be found, but as constructs that are defined. Authors, however, differ in terms of how this construction should be understood. According to Wildavsky (1989, p. 42), 'difficulty is a problem only if something can be done about it . . . analysts, who are supposed to be helpful, understand problems only through tentative solutions . . . for, analysts, problems do imply the real possibility of solution, for there would be no policy analysis if there were no action to recommend'. Wildavsky's approach is thus very close to Dery's one, and in its essence is rather pragmatic and analytic-centred. Similarly, Dunn defines policy problems as 'unrealized needs, values, or opportunities for improvement that may be pursued through public action' (Dunn, 2004, p. 72).

Kingdon (1984, p. 115) also stresses the construction of problems, and the difference between a condition (such as bad weather, illness or poverty) and a problem: 'Conditions

become defined as problems when we come to believe that we should do something about them. Problems are not simply the conditions or external events themselves; there is also a perceptual, interpretive element.' In contrast to Wildavsky, Kingdon argues that a condition is a problem when people want to change this condition, not necessarily when they actually have a solution. In this respect, he gives the example of street crime, which is arguably a persistent problem on the policy agenda without any clear solutions. Whether the conditions are 'translated' into problems depends on several factors, including the values, comparison and categories that are used. For instance, concerning the role of values, though people might agree upon the observed conditions (for example, the number of crimes committed), they differ in how 'appropriate for governmental action' this situation (criminality) is.

Kingdon's understanding of policy problem is thus close to the second meaning described by Dery (discrepancy between what is and what should be). Similarly, Hoppe (2002, pp. 308–9) defines problems as an 'unacceptable gap between normative ideals or aspiration levels and present and future conditions'. 'Problem' is an analytical compound of three elements straddling the fact-value distinction: (1) an ethical standard; (2) a situation (present or future); (3) the construction of the connection between standard and situation as a gap that should not exist. Solving an unstructured problem requires problem structuring which is essentially political activity (Hisschemöller & Hoppe, 2001, p. 51).

The varying understandings of 'problem' result from the different orientation and aims of the two different streams. The aim of the political stream is to understand how conditions are framed and constructed as policy problems. The conceptualization of a policy problem in this stream is broader: conditions are often claimed to be problems, even though there is a possible solution it is not necessarily evident. The aim of the policy stream, in contrast, is to formulate an 'actionable statement'. Consequently, the policy stream authors stress the importance of solvability as well as positive opportunities.

POLITICAL STREAM

Let us now describe the two streams in more detail. Authors from the political stream are concerned with the process by which an issue (or an unexploited opportunity) has been recognized and placed on the public policy agenda as a public problem. The key to understanding problem definition is to know how and why the conditions become defined as public problems. The authors endeavour to 'map out rhetoric most frequently employed by problem definers, and to analyze the scenarios by which definitions are built or crumble' (Rochefort & Cobb, 1994, p. 4). The basic idea behind this approach is that 'problems do not exist "out there"; they are not objective entities in their own right' (Dery, 1984, p. xi). In any particular problem, there can be – and there indeed are – divergent perceptions of its origin, impact and significance. Language, rhetoric and social construction are critical in determining which aspect of a problem will be examined (Stone, 2002).

There is often a mismatch between the seriousness of a problem and the level of attention devoted to it (Rochefort & Cobb, 1994, p. 56). For example, Lineberry (1981, pp. 301–4) demonstrated the discrepancy between the official poverty rate and the public's perception of poverty as an important problem. He concluded that other factors, in

addition to 'objective conditions', could be responsible for an issue's standing, such as intensity of issue advocacy, leaders' openness to the issue and the urgency of competing problems.

This is not to say that 'objective conditions' do not exist at all, but they can be – and in fact really are – interpreted in completely different ways. The political stream authors analyse disputes over a problem – usually retrospectively – to see how the problem has been seen and formulated by the different actors ('the career of the problem'). They see problem definition as a social construct and a political struggle over alternative realities. Authors, however, differ in their epistemological and methodological perspectives. On the one hand, more positivist-inclined authors (often under the label of 'politics of problem definition') try to empirically discern different aspects of this construction, usually using quantitative techniques such as content analysis. As their theoretical foundation they often use different dimensions of the problem construction, trying to analyse in what dimensions the problem has been constructed. For instance, Rochefort and Cobb (1994) proposed a set of dimensions of problem. They include problem causation, nature of the problem, characteristics of the problem population, ends-means orientation of problem definer and nature of solution. A similar set of dimensions was developed by Peters (2005).

Post-positivist-inclined authors tend to focus more upon the theory of how the policy problems are constructed by different actors. Hoppe and colleagues (Hisschemöller & Hoppe, 2001; Hoppe, 2002) use grid-group culture theory focused on different actors' strategies in problem definition, and especially the level of 'structuredness' that these actors try to impose on the problem and why. The key questions Hoppe poses are: 'Why do some policymakers prefer to define problems as overstructured and not understructured? May one predict that policymakers who adhere to different ways of life will prove to be more adept in solving some problem types rather than others?' (Hoppe, 2002, p. 305). Although Hoppe takes policy problems as a subjective sociopolitical construct, he argues that 'this subjectivity does not operate in a random fashion. People may display certain judgmental and behavioral patterns in defining problems' (Hisschemöller & Hoppe, 2001, p. 52).

Hoppe shows that policy makers can (dis)agree on any of three problem elements (current situation, ethical standards and means to achieve the ethical standard). Hoppe's typology of four types of problems is constructed along two dimensions – degree of certainty about knowledge and degree of consent on relevant norms and values (Table 5.3). Hoppe and colleagues link these types of problems to different strategies of their definition. Specifically, they distinguish four types of 'definers'. 'Hierarchists' impose a clear structure on any problem regardless of cost. 'Isolaters' see social reality as an unstable casino in which any privileged problem structure jeopardizes chances for survival. 'Enclavists' (or egalitarians) define any policy problem as an issue of fairness and distributive justice. 'Individualists' exploit any bit of usable knowledge to improve a problematic situation. This approach, that is, finding certain patterns in different actors' problem definitions, has practical implications. Hisschemöller and Hoppe (2001), for instance, argue that policy makers show an inclination to move away from unstructured problems to more structured ones.

Table 5.3   Four types of policy problems

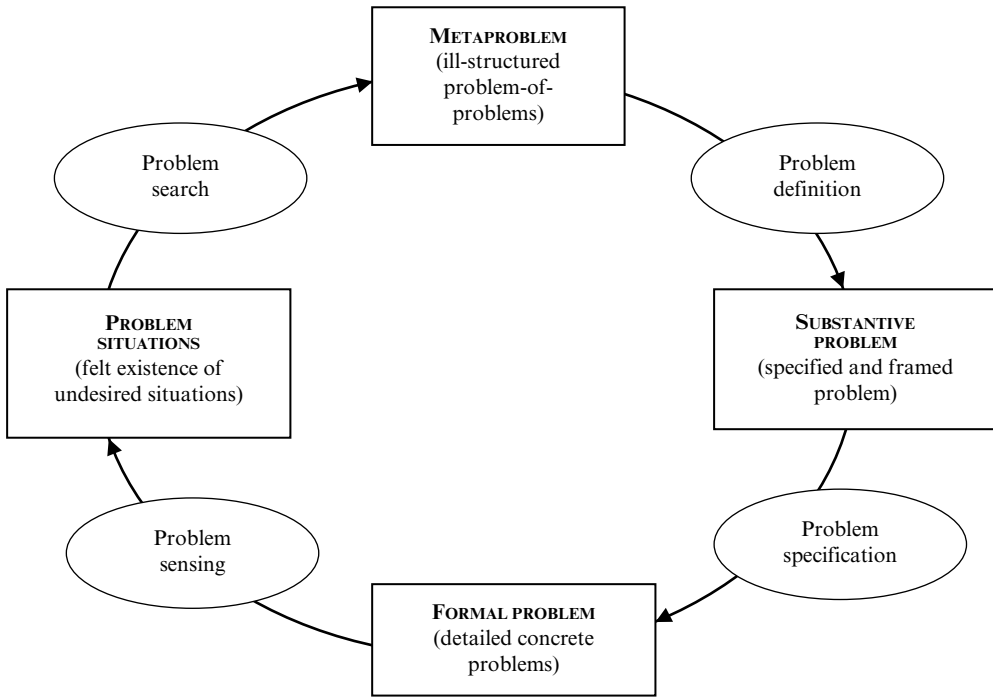|		Consensus on relevant norms and values	
		Yes	No
Certainty about relevant knowledge	Yes	Structured problem (e.g. road maintenance)	Moderately structured problem/ends problems (e.g. abortion, euthanasia or voting rights for foreigners)
	No	Moderately structured problem/ means problems (e.g. traffic safety)	Unstructured problem (e.g. car mobility)

Source: Adapted from Hoppe (2002, p. 309).

POLICY STREAM

Policy stream authors are concerned with providing guidance on how to formulate policy problems so that they can be effectively solved. Almost all policy analysis textbooks (Bardach, 2000; Patton & Sawicki, 1993; Weimer & Vining, 2005) stress the importance of precise problem formulation, and usually take it as a first step. Nevertheless, despite this declared importance, the guidance on how to formulate problems is often very vague. The notable exception to that is the work of Dunn (1988, 1997, 2004).

Dunn (1997, p. 281) uses the term 'problem structuring' that he defines as a 'phase of inquiry in which policy analysts search among, and evaluate, competing problem representations'. According to Dunn, problem structuring is a process with four interdependent phases, namely, problem search, problem definition, problem specification and problem sensing (Figure 5.1). A prerequisite – and usual starting point – of problem structuring is the sensing of 'problem situations'. Problem situations are diffused worries and inchoate signs of stress sensed by policy analysts, policy makers and citizen stakeholders. Problem situations, not well-articulated problems, are what we first experience. The next stage the analysts engage in is problem search. The goal of problem search is not to discover any single problem but on the contrary to discover a 'metaproblem'. A metaproblem is an ill-structured 'problem-of-problems' that includes many problem representations of multiple and diverse policy stakeholders. The number of these socially constructed representations seems unmanageably huge. Moreover, they are dynamic and scattered throughout the whole policy-making process.

Then the central task comes: how to structure a metaproblem. Dunn calls this activity problem definition. For Dunn, problem definition is the act of choosing (or 'filtering') from the whole set of possible representations one particular aspect of the problem – a 'substantive problem'. Problem definition means formulating the basic and general aspects of a given problem. It is a choice of conceptual framework (that is similar to the choice of particular worldview or ideology) and that 'indicates a commitment to a particular view of reality' (Dunn, 2004, p. 84). Any problem can be defined – and often equally persuasively – in quite different frameworks. For instance, the problem of poverty can be explained either in terms of failure of the state or the poor themselves. Once a substantive problem has been defined, a more detailed and specific formal problem may

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                    METAPROBLEM
                    (ill-structured
                     problem-of-
                      problems)

      Problem                          Problem
      search                          definition


  PROBLEM                              SUBSTANTIVE
  SITUATIONS                            PROBLEM
  (felt existence of                (specified and framed
  undesired situations)                  problem)


      Problem                          Problem
      sensing                        specification

                   FORMAL PROBLEM
                  (detailed concrete
                      problems)
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Source: Adapted from Dunn (2004, p. 82).

Figure 5.1   Phases of problem structuring

be constructed. Dunn calls this process problem specification. Problem specification typically involves the development of a formal mathematical representation of the problem.

The critical issue then is how these formal ('technical') formulations of a problem correspond to the original problem situation. One can easily imagine the exact and clear formulation of a problem that has one important drawback: it is not sensed as a problem. This means that we may have committed a so-called error of the third type (E_{III}) – solving the wrong problem. The reasons for this type of error are threefold. First, we could have incorrectly formulated the boundaries of a metaproblem (perhaps some important definitions of particular stakeholders were omitted). Second, during the problem definition phase we may have chosen the wrong worldview or ideology to conceptualize a 'problem situation'. Third, during problem specification we may have chosen the wrong formal representation of the problem.

Dunn argues that problem structuring is embedded in a political process and that policy problems are usually ill-structured. Consequently, he stresses the role of creativity and insight in problem structuring, and called for the development of 'methods of second type' that would take into account the fact that the boundaries of problems are usually ill-defined. He also gives a summary of these techniques and some new methods, such as boundary analysis. Table 5.4 summarizes these methods and includes some others.[2] It is important to note that these methods are mostly heuristics, aimed at stimulating creative

Table 5.4   Methods for problem structuring

Method	Source
Argumentation mapping[a]	Toulmin (1958)
Assumptional analysis[a]	Mitroff and Emshoff (1979)
Boundary analysis[a]	Dunn (2004), Hosseus and Pal (1997)
Brainstorming[a]	Proctor (2005)
Causal models	Jones (1995, chapter 7)
Classificational analysis[a]	O'Shaughnessy (1971)
Dimensional analysis	Jensen (1978)
Fishbone diagram (Ishikawa diagram)	Higgins (2006)
Hierarchy analysis[a]	O'Shaughnessy (1971)
Interpretive structural modelling	Warfield (1976)
Mind maps, cognitive maps	Eden and Achermann (2004)
Multiple perspective analysis[a]	Linstone (1981)
Problem tree	Start and Hovland (2004)
Q-methodology	McKeown and Thomas (1988)
Stakeholders analysis	Montgomery (1996), Varvasovszky and Brugha (2000)
SWOT analysis	Proctor (2005)
Synectics	Gordon (1961)
Technique of decisions seminars	Lasswell (1960)
Why-why diagram	Higgins (2006)

Note: [a] Included in Dunn's (2004) textbook.

and systematic thinking rather than providing a clear-cut sequence of steps with replicable results. They are used in different ways and with different frequency. For instance, SWOT analysis (which I also take as a problem delimitation method) is widely used, but I have found only one application of boundary analysis in the literature (Hosseus & Pal, 1997).

Despite its pragmatic and analytical orientation, Dunn's approach cannot be judged as a solely positivist one, especially when compared to work of scholars such as Bardach (2000) or Rosenhead and Mingers (2001), who also formulated methodology for problem formulation. Nevertheless, it is deeply embedded in the policy analysis tradition in attempting to increase the rationality of the policy-making process. It strives to help to solve social problems, which includes the identification of the right policy problems. This method is in sharp contrast with new approaches to problem structuring such as the one proposed by Bacchi (2009), whose 'what's the problem represented to be?' (WPR) approach rests on quite different assumptions. Bacchi argues that most government policies do not officially declare that there is a problem the policy will address and remedy; it is usually implicit. WPR assumes that we are governed through problematizations and we need to study problematizations rather than 'problems'. The goal of the WPR is thus to problematize (interrogate) the problematizations in selected government policies, through scrutinizing the premises and effects of the problem representations these problematizations contain.

BEYOND POLITICAL AND POLICY STREAMING

As we have seen, there are quite diverse understandings of problem delimitation, and the topic is approached from different angles and on the basis of different assumptions. Unfortunately, these approaches are spread among different types of literature, making mutual discussion and inspiration difficult. Moreover, the topic is discussed under many different labels, such as problem structuring, problem modelling, problem definition, problem formulation and others, often used carelessly. The strongest division line lies between the 'political' and 'policy' streams. While the 'political' stream strives to understand the process of how conditions and problem situations become defined as public problems, the policy stream attempts to influence this process by suggesting more or less explicit procedures of formulating problems.

Given the 'knowledge in' and 'knowledge for' distinction, this division in the literature is understandable. However, it is also rather artificial and unproductive. In fact, these two basic approaches are not contradictory but complement one another. Some authors indeed have combined these two approaches (Dunn, 2004; Hoppe, 2002) and shown that it is possible and useful to have an understanding of the problem and to contribute to its effective formulation. Although the 'policy side' of problem delimitation is important, we need, at the same time, to grasp the history of the problem and the reasons why it is framed in a particular way. Knowing the 'career' of the problem can help in finding a problem definition that fulfils the requirements of solvability by public policy instruments. On the other hand, the analysis of a 'problem career' can be enriched by including changes of objective conditions in the problem, that is, when the subjective definitions (frames) of the problem are directly connected to actual societal changes (that is, it is acknowledged that policy problems are not completely socially constructed). Similarly, an analysis of how different actors 'play' with hard data could be very useful and interesting.

It thus can be argued that problem delimitation should be understood centred either on policy or politics, but as two related activities. The first one is mostly academic and could be called problem analysis (or problem diagnosis). This includes the study of facts and different perspectives as well as their interrelations. In other words, it includes both the study of social conditions and their subjective interpretation and also, more importantly, the relationship between the subjective and objective dimensions. The second activity is more practical and normative and could be called problem formulation. This activity would build upon an understanding of a problem (problem analysis) but explicitly and transparently add analysts' values.

Indeed, there is some evidence of a gradual convergence of these two perspectives. While the political stream is becoming more 'pragmatic' (considering practical implications), the policy stream seems to be more informed by the complexity of the political environment. The old days of purely rational techniques of problem formulation seem to have come to an end. Indeed, in the last decade, the problem delimitation scholarship has changed, and new approaches and concepts have been introduced. Two prominent new concepts include 'wicked problems' (Head & Alford, 2015; Weber & Khademian, 2008; see also Chapter 2 of this volume on ill-structured problems) and 'problematization' (Bacchi, 2009; Turnbull, 2005).

These two concepts have well-established roots in the literature, but their current orientation is changing. Authors using the concepts have convincingly demonstrated that

problem formulation is deeply embedded in political processes that cannot be escaped by any type of rational reasoning. At the same time, however, many of them have tried to overcome defeatism and proposed how to deal with the problems of complexity, uncertainty and values.[3] In any event, in all approaches where 'political' and 'policy' streams are converging, problem delimitation loses its primacy over other policy formulation activities, such as goal formulation and recommendation of policy solutions. If problem delimitation includes values and trade-offs among different solutions which can be decided only through the political process, then problem delimitation is inherently interconnected with searching for goals and solutions. It is thus close to seeing problems as 'opportunities for improvement', as envisioned by Dery more than three decades ago.

The conceptualization of a problem as a triplet of problem conditions, goals and solutions that are inherently linked to one another conflicts with the approach taken in many traditional policy analysis textbooks. These usually assume policy analysis as a process with several steps where problem analysis precedes the solution analysis (Weimer & Vining, 2005). Consequently, policy analysts are warned against defining the solution into the problem (Bardach, 2000, p. 5). In more 'politically informed' textbooks (Dunn, 2004), problem delimitation is depicted as a starting point that is refined in an iterative process.[4]

But if problem formulation has a meaning only in relation to solutions, the crucial question is what counts as a solution. Problem structuring necessarily includes not only discussion about the goals that are worth pursuing but also the means that are considered most effective and legitimate. In problem structuring, analysts must make assumptions about the best way to tackle problematic situations. These problematic situations are often vague, dispersed and multifaceted. If they are to be approached they must be labelled and clustered into sets of problems that can be subject to policy actions. For instance, if we are to deal with the reproduction of social inequalities, in practical terms this wicked problem has to be aligned with the organizational structure of the government and policy instruments available. It is necessary to address this through the social security system, educational system, labour policy and so on, which are usually managed by different government bodies.

Problem structuring necessarily includes decisions about the general strategy to tackle problematic situations. Some people believe that these problematic situations cannot be addressed in isolation and only a systemic strategy is appropriate (Ackoff, 1974, p. 21):

> Every problem interacts with other problems and is therefore part of a system of interrelated problems, a system of problems . . . I choose to call such a system a mess . . . The solution to a mess can seldom be obtained by independently solving each of the problems of which it is composed . . . Efforts to deal separately with such aspects of urban life as transportation, health, crime, and education seem to aggravate the total situation.

In contrast, Lindblom (1959) and his followers argued that from the purely rationalist perspective, the democratic political process is – and always will be – imperfect. Consequently, the policy formulation should focus upon 'partial solutions'.

Part of any problem delimitation is necessarily also judgement as to whether the problems should be structured in concert with systemic or incremental solutions. This is, no doubt, a crucial decision that will influence all other activities. But the situation is even more complicated. Some authors have challenged the concept of policy solution itself and argued that instead of presuming problems require solutions to dissolve them, policy

problems should be taken as questions that require answers (Turnbull, 2006). What is important for governments, then, is the question and answer process. Governments are supposed to respond to problematic situations but not necessarily to solve them (Hoppe, 2010). Clearly, at least sometimes it is necessary to act despite the lack of a clear solution: 'You don't so much "solve" a wicked problem as you help stakeholders negotiate shared understanding and shared meaning about the problem and its possible solutions. The objective of the work is coherent action, not final solution' (Conklin, 2007, p. 5).

This understanding of problems is close to what Ackoff labelled as 'messes'. Messes cannot be solved, but can, and should be, managed or tackled. Cognitively, messes can only be structured or delimited, that is, we can describe different aspects of the problem and its proposed boundaries. We cannot, however, precisely define it. But as we know, without a precise definition of a problem, it is hard to find a cognitive solution. Thus, in the real world, problem delimitation is often a never-ending process of formulations of tentative problem definitions. It includes both political and cognitive dimensions, or in Heclo's (1974, pp. 305–6) words, it includes both powering and puzzling:

> Politics finds its sources not only in power but also in uncertainty – men collectively wondering what to do. Finding feasible courses of actions includes, but is more than, locating which way the vectors of political pressure are pushing. Governments not only 'power' (or whatever the verb form of that approach might be): they also puzzle. Policy-making is a form of collective puzzlement on society's behalf; it entails both deciding and knowing.

NOTES

1. It is a bit symptomatic that most authors writing on 'problem definition' do not define what problem definition is at all. Most authors take the process of problem delimitation for granted, and do not state explicitly how they understand it.
2. For readers' information, we have indicated which methods were included in Dunn's original review.
3. In this respect, it is interesting to note that Dery refused to give a guide on 'how to define policy problems' and was very sceptical of the actual possibility to do so: 'A how to-do-it guide on creativity would be self-contradictory. The nature of question-finding processes resists precise or useful description' (Dery, 1984, p. 2).
4. In Dunn's widely used textbook, problem structuring is depicted in the middle of the policy analysis process, surrounded by expected policy outcomes, preferred policies, observed policy outcomes and policy performance (Dunn, 2004, p. 56).

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6. Policy tools and their role in policy formulation: dealing with procedural and substantive instruments
Michael Howlett

INTRODUCTION: POLICY INSTRUMENTS AND PUBLIC POLICY-MAKING

Policy instruments are the techniques of governance that help define and achieve government goals. Other terms have been developed in the field of policy studies to describe the same phenomena, such as 'governing instruments', 'policy tools' and the 'tools of government', and while these are sometimes used to refer to slightly different aspects of the mechanisms and calibrations of policy means, they are more often used synonymously.

Policy instruments have been the subject of inquiry in many policy-related fields, including public administration and 'governance' studies, as well as various broader disciplines such as political science and economics (Dahl & Lindblom, 1953; Hood, 2007). They are of central importance to the practice of policy formulation, as that activity involves governments in constant discussions related to how instruments work individually and together and how to choose the most appropriate instrument combinations in order to best address pertinent policy issues.[1]

Analyses of specific policy instruments proliferated during the 1970s and early 1980s in domain- and/or sector-specific areas of study such as health studies, labour studies, social policy studies, women's studies, international studies and others where new techniques for delivering policies and programmes – such as enhanced use of market tools – emerged or where efforts were made to alter or improve existing techniques through the use of procedural tools such as advisory commissions (Hood, 2007; Varone 1998, 2000). At about the same time, attempts to better understand policy instrument functions across sectors generated a series of studies which proposed and propagated different instrument taxonomies in order to 'produce parsimonious and comprehensive or generic classifications that allowed comparisons across time, area, and policy domain' (Hood, 2007, p. 129).

In general, academic studies have examined:

1. What tools does a government have?
2. How can these be classified?
3. How have these been chosen in the past?
4. Is there a pattern for this use?
5. How can these patterns be explained? and
6. How can practice, and theory, be improved based on past patterns of use? (Hood, 2007; Salamon, 1981; Timmermans et al., 1998)

This chapter reviews the existing literature on these subjects and the findings from studies examining why some tools are used and not others and under what conditions, a key question that needs to be answered in studying policy formulation.

WHAT IS A POLICY INSTRUMENT?

One of the first inventories of instruments was Kirschen et al.'s identification in 1964 of well over 40 different types of instruments then prevalent in economic policy-making. Kirschen and his fellow authors utilized a resource-based taxonomy of governing instruments to group instruments into five general 'families' according to the resource used. These were: public finance, money and credit, exchange rates, direct control and changes in the institutional framework (1964, pp. 16–17). Such studies were followed by many others examining the instruments prevalent in other areas, such as banking and foreign policy (Hermann, 1982). These were path-breaking studies that, although they did not make any distinctions between general implementation preferences, policy mechanisms or calibrations, laid the groundwork for such future refinements by providing the raw data required for later classification efforts.

A major work on the subject of policy tools appeared in 1986: Christopher Hood's *The Tools of Government* (see also Hood, 1983). Hood's discussion was directly influenced by detailed studies of the British and German policy implementation processes undertaken by Dunsire (1978) and Mayntz (1979) and involved a resource-based categorization scheme for policy instruments that was straightforward and served as an admirable synthesis of the other, earlier, resource-based models of policy instruments.

Hood argued that governments have essentially four resources at their disposal – nodality (referring to a government's existence at the 'centre' of social and political networks, but which can be thought of as 'information' or 'knowledge'), authority, treasure and organization – and can utilize those resources for either of two purposes – to monitor society or to alter its behaviour. In Hood's NATO scheme, instruments are grouped together according to (1) which of the resources they rely upon and (2) whether the instrument is designed to effect a change in a policy environment or to detect changes in it (Anderson, 1975; Hood, 1986).

This formulation proved useful in providing eight clearly differentiated categories of substantive instruments (Figure 6.1).

Other works have expanded on Hood's categories and modified them slightly to include a large number of instruments – including education, training, institution creation, the selective provision of information, formal evaluations, hearings and institutional reform – that are involved in policy-making but which existed outside the mainstream focus of the field of instrument study on the economics of regulation (Bellehumeur, 1997; Chapman, 1973; Kernaghan, 1985; Peters, 1992; Weiss & Tschirhart, 1994; Wraith & Lamb, 1971).[2]

At the most basic level, it is now accepted that policy instruments or tools fall into two types depending on their general goal orientation. One type proposes to alter the actual *substance* of day-to-day activities carried out by citizens going about their productive tasks, and the other focuses more upon altering political or policy behaviour in the *process* of the articulation of policy goals and means. 'Substantive' policies are those used to more directly affect the production, consumption and distribution of goods and services

Governing Resource				
Principal use	Nodality	Authority	Treasure	Organization
Effectors	Advice Training	Licences User Charges Regulation Certification	Grants Loans Taxes Expenditures	Bureaucratic Administration Public Enterprise
Defectors	Reporting Registration	Census Taking Consultants	Polling Policing	Record Keeping Surveys

Source: Adapted from Hood (1986).

Figure 6.1   Hood's taxonomy of substantive policy instruments

in society, while 'procedural' tools only indirectly affect production, consumption and distribution processes (Howlett, 2000). Evert Vedung combined both these elements in defining policy instruments as 'the set of techniques by which governmental authorities – or proxies acting on behalf of governmental authorities – wield their power in attempting to ensure support and effect social change' (Vedung, 1998, p. 50).

Substantive Policy Instruments

Substantive instruments are those expected to alter some aspects of the production, distribution and delivery of goods and services in society. These goods and services range from the mundane, like school lunches, to crude vices such as gambling or illicit drug use; individual virtues such as charitable giving or volunteer work; and the attainment of collective goals like peace and security, sustainability and well-being. *We can thus define substantive policy instruments as those policy techniques or mechanisms designed to directly or indirectly affect the production, consumption and distribution of different kinds of goods and services in society.* This is a larger field of action than that typically studied in economics, although quite similar in many respects: it extends to many goods and services provided or affected by markets, but goes well beyond markets to also include state or public provision and regulation of goods and services, as well as the control and regulation of goods and services typically provided by the family, community, and non-profit and voluntary organizations, often with neither a firm market nor state basis.

Substantive policy instruments can affect many aspects of production, distribution and consumption of goods and services regardless of their institutional basis. Production effects, for example, include determining or influencing the types of activities set out in Figure 6.2.

Consumption and distribution effects are also manifold. Some examples of these are set out in Figure 6.3.

Examples of substantive tools used to affect aspects of social and individual behaviour involved in the activities listed in the figure include tools such as 'regulation', whereby governments establish agencies and empower them to monitor and control social and economic behaviour using mechanisms such as information collection and penalties, or 'subsidies', whereby governments provide various kinds of financial incentives to encourage social actors to behave in certain ways. Substantive instruments may also be

1. Who produces (e.g. via licensing, via bureaucracy/procurement, via subsidies for new start-ups)
2. The types of goods and services produced (e.g. via bans or limits or encouragement)
3. The quantity of goods or services produced (e.g. via product standards or warranties)
4. Methods of production (e.g. via environmental standards or subsidies for modernization)
5. Conditions of production (e.g. via health and safety standards, employment standards acts, minimum wage laws, inspections)
6. The organization of production (e.g. via unionization rules, anti-trust or anti-combines legislation, securities legislation, tax laws)

Figure 6.2   Production effects of the use of substantive tools

1. Prices of goods and services (e.g. regulated taxi fares, World War II rationing)
2. Actual distribution of produced goods and services (e.g. location and types of schools or hospitals, forest tenures or leases)
3. Level of consumer demand for specific goods (via information release, nutritional and dangerous good labelling – as on cigarettes, export and import taxes and bans)
4. Level of consumer demand in general (e.g. via interest rate policy)

Figure 6.3   Consumption and distribution effects of the use of substantive tools

more esoteric – for example, 'transferable quotas' used to limit and control everything from fish harvests to CO_2 emissions, or 'government advertising', used to inform and promote individuals and companies and other actors to stop smoking or lose weight, or in the case of companies to support their employees' healthy life choices. Many permutations and combinations of such tools exist, such as when a government agency runs a stop smoking campaign while at the same time bans smoking in bars and other locations and heavily taxes cigarette consumption.

Procedural Policy Instruments

Procedural policy instruments, on the other hand, affect production, consumption and distribution processes only indirectly, if at all, and instead are concerned with altering aspects of a government's own workings (de Bruijn & ten Heuvelhof, 1997). Policy actors are arrayed in various kinds of policy networks, for example, and just as they can manipulate the actions of citizens in the productive realm, so governments can also manipulate aspects of network political or policy-making behaviour. These behavioural modifications can affect the articulation of policy goals and means in ways that are not always easily predictable or controllable. Procedural tools are an important part of network management activities 'aimed at improving game (policy) interaction and results' but, as Klijn et al. (1995) also note, 'the network structures the game without determining its outcome' (p. 441). Figure 6.4 lists many of the kinds of policy-related activities that can be affected by the use of procedural instruments (Goldsmith & Eggers, 2004; Klijn & Koppenjan, 2006; Klijn et al., 1995).

Examples of procedural policy instruments include a government creating an advisory committee of select citizens or experts to aid it in its policy deliberations in contentious

1. Change actor positions
2. Set down actor positions
3. Add actors
4. Change access rules for actors
5. Influence network formation
6. Promote self-regulation
7. Modify system, e.g. level of market reliance
8. Change evaluative criteria
9. Influence pay-off structure for actors
10. Influence professional and other codes of conduct and behaviour
11. Regulate conflict
12. Change interaction procedures
13. Certify certain types of behaviour
14. Change supervisory relations between actors

Figure 6.4   Effects of the use of procedural tools

issue areas such as local housing development or chemical regulation, or the creation of a freedom of information or access to information legislation to make it easier for citizens to gain access to government records, information and documents. Internal structural reorganization can also affect policy processes, as occurs, for example, when natural resource ministries are combined with environmental ones, forcing the two to adopt new operating arrangements.

In general, procedural tools are not as well studied as substantive instruments, and are less well known in their impact and effects, although techniques such as the use of public participation and administrative reorganizations are quite old and well used, and form the basis of study in fields such as public administration and organizational behaviour (Woolley, 2008).

POLICY FORMULATION: THE PROCESS AND RATIONALE(S) OF POLICY TOOL SELECTION AND USE

Besides understanding what tools exist for governments to use, policy instrument studies are also very much interested in understanding which tools are actually used and why. In a perfect world, there would be little trouble choosing the appropriate tool for the governmental task at hand. If all the costs and benefits of a tool were context-free and known, and the goals of a policy clear and unambiguous, then a decision on which instrument to use in a given circumstance would be a simple maximizing one, and mistakes would not be made. However, in real world situations, as information difficulties arise in determining instrument effects and as the clarity and precision of goals diminishes, it becomes more and more likely that policy means and ends will be contested, and that mismatches and policy failures will occur.

This involves students of policy tools directly in the study of policy formulation. The process of formulation is a collective and dynamic effort by policy agents both in and outside governments. 'The government' is clearly not an undifferentiated singular actor,

and non-government counterparts are also significant contributors to the instrument development process (Schneider & Ingram, 2005; Weaver, 2015). In addition, the process of instrument choice is as much affected by the capacities and interests of policy-makers to issue alternatives as it is by the dispositions of the targets or consumers of these instruments (Voß & Simons, 2014).

In this sense, policy instrument choices are often viewed through an ideological or conceptual lens that reduces choices to a 'one size fits all' motif or, more commonly, to a struggle between 'good and evil' in which an existing range of instrument uses is condemned and the merits of some alternative single instrument trumpeted as the embodiment of all that is good in the world (Howlett, 2004). The unfortunate consequences of such an approach, if adopted, is usually to wield that instrument – be it state-driven public enterprises in the case of socialist and developing countries in the first two-thirds of the 20th century, or the virtues of privatization, deregulation and markets in the last third – less like the scalpel of a careful surgeon working on the body politic, and more like the butcher's cleaver, with little respect for what falls under the knife.

Theorists and practitioners both need to move beyond simple, dichotomous, zero-sum notions of policy instrument alternatives (like market versus state) and metaphors (like carrots versus sticks) in thinking about policy tool choices and alternatives (Blankart, 1985). Such blunt choices lead to blunt thinking about instruments and their modalities. Administrators and politicians need to expand the menu of government choice to include both substantive and procedural instruments and a wider range of options of each, and to understand the important context-based nature of instrument choices. Scholars need more empirical analysis in order to test their models and provide better advice to governments about the process of tool selection and how to better match the tool to the job at hand.
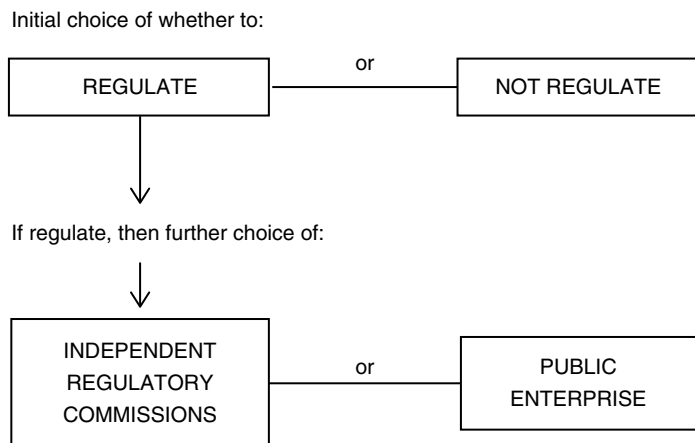
Subtler studies have attempted to examine past patterns of instrument choices in determining why they were selected in practice. Early students of public administration in the United States – like Robert Cushman (1941), who wrote on the origins of US regulatory commissions in the late 1940s – noted that governments had a number of alternative choices they could make in any given situation, depending on the amount of coercion they wished to employ. Governments could either regulate or choose not to regulate societal activities; if they chose to regulate, they could do so either in a coercive or non-coercive manner (Figure 6.5).

Cushman's analysis, among other things, introduced the idea that instrument choices were multi-level and nested, an insight which would be further developed in the years to come.

Other authors used this insight about coercion to identify patterns in government preferences for its use. Theodore Lowi, for example, categorized the types of policies that governments could enact according to two dimensions of coerciveness: level of sanctioning and object targeted (Lowi, 1966, 1972). There were the weakly sanctioned and individually targeted 'distributive' policies; the strongly sanctioned and individually targeted 'regulatory' policies; and the strongly sanctioned and generally targeted 're-distributive' policies. To these three Lowi later added a category of weakly sanctioned and generally targeted 'constituent' policies (Roberts & Dean, 1994).

Later authors elaborated on these choices. Elmore (1978), for example, identified four major classes of instruments – mandates, inducements, capacity building and system changing – while Balch and others talked about 'carrots and sticks' and other strategies

Initial choice of whether to:

| REGULATE | or | NOT REGULATE |

If regulate, then further choice of:

| INDEPENDENT REGULATORY COMMISSIONS | or | PUBLIC ENTERPRISE |

Source: Cushman (1941).

Figure 6.5   Cushman's three types of policy tools

(Balch, 1980). Most followed Lowi and Cushman's lead in focusing on some aspect of coercion as the key element that differentiates policy instrument types.

Scholars like Bruce Doern, Richard Phidd, Seymour Wilson and others published a series of articles and monographs in the late 1970s and early 1980s, arguing that tool choices and policy formulation occurred on a continuum of policy instruments. Their initial scale organized only self-regulation, exhortation, subsidies and regulation according to the extent of government coercion required for their implementation (Doern, 1981). To these were later added 'taxation' and public enterprise (Tupper & Doern, 1981) and then a series of finer 'gradations' within each general category (Doern & Phidd, 1983) (Figure 6.6).

What Doern and colleagues identified through this type of analysis was the significant role of the willingness of governments to use their authority and their financial, informational and organizational resources against specific target groups in order to achieve their

Exhortation   ......   Financial   .....   Regulation   .....   Public Enterprise

Minimum   **Maximum**

Extent of government coercion
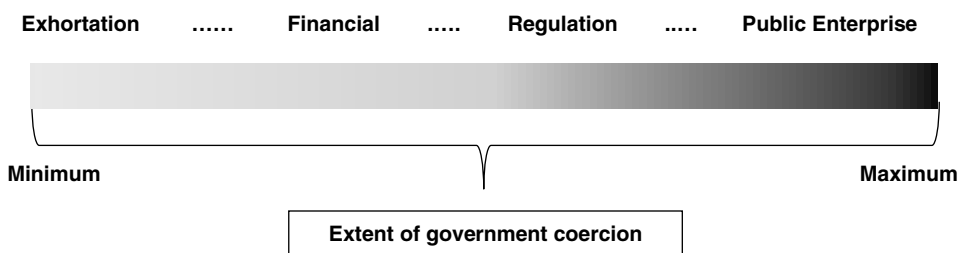
Source: Adapted from Doern and Phidd (1983).

Figure 6.6   The Doern continuum

goals in policy formulation (Baxter-Moore, 1987; Trebilcock & Hartle, 1982; Woodside, 1986).

The Significance of Instrument Mixes

These early studies tended to focus on choices between single instruments and single criteria such as the willingness to use coercion. More recent studies of tool choices and policy formulation have examined more complex situations involving multiple tools and multiple criteria. Salamon and Lund, for example, suggested that different instruments involve varying degrees of effectiveness, efficiency, equity, legitimacy and partisan support, and changes in a particular situation affect the appropriateness of their use (Salamon & Lund, 1989). Thus some instruments are more effective in carrying out a policy in some contexts than others. For example, efficiency – in terms of low levels of financial and personnel costs – may be an important consideration in climates of budgetary restraint but is less significant in free-spending times.

Similarly, legitimacy is another critical aspect of instrument use that varies with context (Beetham, 1991; Suchman, 1995). Abstract notions of effectiveness may also find themselves less important in some contexts, like wartime, when the use of government departments or public enterprises may be preferred, simply because they remain under direct government control (Borins, 1982; Vining & Botterell, 1983), or because administrators may be more familiar with their use and risks (Hawkins & Thomas, 1989; May, 1993).

The ability of an instrument to attract the support of the population in general, and particularly of those directly involved in policy-making in the issue area or sub-system, is a key dimension of policy formulation. Hence a relatively heavy-handed approach to regulation of the financial dealings of industry, for example, may be anathema in normal times, but in the wake of bank failures or scandals may find sudden popularity among both policy elites and the public.

Moreover, cultural norms and institutional or political arrangements may accord greater legitimacy to some instruments than others. Instruments have varying distributional effects, and so policy-makers may need to select instruments that are, or at least appear to be, equitable. For example, as tax incentives are inherently inequitable because they offer no benefit to those (the poor) without taxable income, their use will vary to the extent that societies are bifurcated along socio-economic or class lines, and that individuals are aware of both the advantages and pernicious consequences of such incentives. Cultural values are also important. Thus in liberal democracies, citizens and policy-makers desiring high levels of individual autonomy and responsibility generally prefer instruments that are less coercive, even if the alternatives are equally or perhaps more effective or efficient. Such societies can be expected to prefer voluntary and mixed instruments to compulsory instruments on philosophical or ideological grounds (Doern, 1974; Doern & Wilson, 1974; Howlett, 1991).

In addition to the 'external' contexts and constraints that must be taken into account by policy formulators, 'internal' constraints on instrument choices must also be considered. That is, while instrument choice is clearly not a simple technical exercise and must take into account social, political and economic context, it is also the case that the internal configuration of instrument mixes alters the calculus of instrument choice in significant ways. Some instruments may work well with others, as is the case with 'self-regulation' set

within a regulatory compliance framework (Gibson, 1999; Grabosky, 1994; Trebilcock et al., 1979; Tuohy & Wolfson, 1978), while other combinations – notably, independently developed subsidies and regulation (de Moor, 1997; Myers & Kent, 2001) – may not.

Choosing policy tools and formulating policy becomes more complex when multiple goals and multiple policies are involved within the same sector and government, as is very common in many policy-making situations (Doremus, 2003; Jordan et al., 2012b; Howlett et al., 2009). These latter kinds of multi-policy, multi-goal and multi-instrument mixes – referred to by Milkman et al. (2012) as 'policy bundles', Chapman (2003) and Hennicke (2004) as a 'policy mix', and Givoni et al. (2013) as 'policy packages' – are examples of complex portfolios of tools. This makes their formulation or design especially problematic (Givoni, 2013; Givoni et al., 2013; Peters, 2005). Most often the focus should move from the design of specific instruments to the appropriate design of instrument mixes. This is more difficult to do when instruments belong to different territorial or administrative levels.

Contemporary scholars and practitioners highlight a number of design questions about such portfolios, including the issues of avoiding both 'over' and 'under' design (Haynes & Li, 1993; Maor, 2012, 2014); how to achieve 'complementarity' and avoid 'redundancy' or counterproductive mixes (Grabosky, 1994; Hou & Brewer, 2010; Justen et al., 2014a, 2014b); how to enhance or alter mixes over time so that they can continue to meet old goals and take on new ones (Van der Heijden, 2011); and how to sequence or phase in instruments over time (Howlett, 2011; Kay, 2007; Taeihagh et al., 2013).

These questions include, first, how exactly tools fit together, or should fit together, in a mix. In such mixes the instruments are not isolated from each other; tools in such mixes interact, leading to the potential for negative conflicts ('one plus one is less than two') and synergies ('one plus one is more than two') (Lecuyer & Bibas, 2012; Philibert, 2011). In such cases different design principles are required to help inform portfolio structure. Here the question of tool complementarity looms large. As Tinbergen (1952) noted, additional tools – 'supplementary' or 'complementary' ones – are often required to control side effects or otherwise bolster the use of a 'primary' tool. Bundling or mixing policy tools together in complex arrangements, however, raises difficult questions for students and practitioners when there are significant interactive effects among policy tools (Boonekamp, 2006; Yi & Feiock, 2012), some of which may be difficult to anticipate or quantify with standard analytical tools (Justen et al., 2014a, 2014b).

A second and related set of issues involves determining how many tools are required for the efficient attainment of a goal or goals. This concern has animated policy design studies from the outset. An example of an oft-cited rule in this area, originating in the very early years of policy design studies, is that the optimal ratio of the number of tools to targets or goals in any portfolio is 1:1 (Knudson, 2009). This is a rule of thumb design principle towards which Tinbergen (1952) provided some logical justification in his discussion of the information and administrative costs associated with the use of redundant tools in the area of economic policy. Most observers, however, dispute that such a simple situation was ever 'normal' and instead argue that combinations of tools are typically found in efforts to address multiple policy goals (Jordan et al., 2012a).[3] The issue of potentially under- or over-designing a mix arises in all such circumstances and is made more complex because in some instances arrangements may be unnecessarily duplicative while in others redundancy may be advantageous in ensuring that goals will be met (Braathen, 2007; Braathen & Croci, 2005).

A third set of concerns relates to how any optimum figure can be attained in practice. This concern is less a spatial than a temporal one, as existing evidence shows that sub-optimal situations are common in many existing mixes, which have developed haphazardly through processes of policy layering (Thelen, 2004; Van der Heijden, 2011). Layering is a process in which new tools and objectives have been piled on top of older ones, creating a palimpsest-like mixture of quite possibly inconsistent and somewhat incoherent policy elements (Carter, 2012; Howlett & Rayner, 2007). These temporal dynamics focus attention on the sequencing of instrument choices (Taeihagh et al., 2009, 2013) and especially on the fact that many existing mixes have developed without any sense of an overall conscious design.

'Unintended' policy mixes, created and limited by historical legacies, can be hampered due to internal inconsistencies, whereas other policy instrument groupings can be more successful in creating an internally supportive combination (Del Rio, 2010; Grabosky, 1994; Gunningham et al., 1998; Howlett & Rayner, 2007). While earlier policy instrument design thinking tended to suggest that design could only occur in spaces where policy packages could be designed 'en bloc' and anew, the new orientation recognizes that most design circumstances involve building on the foundations created in another era and working with sub-optimal design spaces (Howlett et al., 2015). In such situations, policy formulators are faced with the added issue of redesigning existing regime elements in the context of a design space that has been altered by remnants of earlier policy efforts (Howlett, 2009; Oliphant & Howlett, 2010; Williams, 2012). As a result, 'designers often attempt to "patch" or restructure existing policy elements rather than propose completely new arrangements even if the situation might require the latter for the sake of coherence and consistency in the reformed policy mix' (Howlett & Mukherjee, 2014, p. 63; see also Eliadis et al., 2005; Gunningham & Sinclair, 1999; Thelen, 2003, 2004).

CONCLUSION

Over the last decade or so, policy scholars have become increasingly interested in guidelines for the formulation of sophisticated policy designs in which complementarities are maximized and conflicts avoided (Barnett & Shore, 2009; Blonz et al., 2008; Buckman & Diesendorf, 2010; Del Rio et al., 2011; Roch et al., 2010).

The study of policy instruments over the past 30 years has generated many insights into instrument use that have helped academics better understand policy processes and have helped practitioners design better policies (Gibson, 1999; Hood, 2007). Intelligent design of policy mixes begins with ensuring a good fit, not only between packages of tools and government goals and their institutional and behavioural contexts at a specific moment in time (Considine, 2012; Lejano & Shankar, 2013), but also across time periods as new instruments appear and old ones evolve or are eliminated. As a result, policy tool studies must extend beyond questions of tool synergies and optimal design to consideration of how and why mixes change over time and how the processes of policy formulation that are followed in adopting such complex designs take place (Feindt & Flynn, 2009; Kay, 2007; Larsen et al., 2006). Moving away from a focus on single instruments, analysts look instead at complementarities and conflicts within instrument mixes and adopt a much more flexible and less ideological approach to instrument use.

Moving well beyond considerations of 'good and evil', second generation scholars have emphasized the need to design appropriate instrument mixes. The new design orientation has sought to address how to make the most of policy synergies while curtailing contradictions in the formulation of new policy packages (Hou & Brewer, 2010; Kiss et al., 2012; Lecuyer & Quirion, 2013). As the concept has evolved, policy tool studies have come to focus on a small number of key precepts which embody the 'scalpel' approach to instrument use:

1. The importance of designing policies that employ a mix of policy instruments carefully chosen to create positive interactions with each other and to respond to particular, context-dependent features of the policy sector.
2. The importance of considering the full range of policy instruments when designing the mix rather than assuming that a choice must be made between regulation and markets (Sinclair, 1997).
3. In the context of continuing pressure on governments to do more with less, to suggest the increased use of incentive-based instruments, various forms of self-regulation by industry, and policies that can encourage commercial and non-commercial third parties, such as suppliers, customers and a growing cast of auditors and certifiers, to achieve compliance.
4. Finally, the importance of the search for new network-appropriate procedural policy instruments to meet the challenges of governance. Of particular importance here are 'next generation' policy instruments, such as information instruments, and various techniques of network management, such as the use of advisory committees and public consultations (Gunningham & Sinclair, 2002).

These insights stress the importance of context in understanding instrument choices and designing optimal (or at least non-counterproductive) instrument mixes (Bressers & O'Toole, 2004; Minogue, 2002).

The current generation of policy instrument studies has thus moved to understand not just what governments choose to do or not do, but also the reasons behind these choices. For a new generation of scholars of policy tools and formulation, the key question is no longer so much 'why do policy-makers utilize a certain instrument?', but 'why is a particular combination of procedural and substantive instruments utilized in a specific sectoral context?' With this analytical aim, the research agenda of contemporary policy instrument design studies has re-centred on a more detailed exploration of the actual formulation processes that result in choices surrounding policy tools and policy tool mixes as they evolve over time (Considine, 2012; Linder & Peters, 1990; Voß & Simons, 2014).

Contemporary policy instrument scholars are thus very interested in processes such as how policy formulators, like software designers, can issue 'patches' to correct flaws in existing mixes or allow them to adapt to changing circumstances (Rayner, 2013). They are also interested in related subjects such as how policy experiments can help reveal the possibilities of redesign (Hoffmann, 2011) or how building temporal properties into tool mixes – 'adaptive policy-making' (Swanson et al., 2010) – can make designs more flexible or resistant to shifting conditions (Haasnoot et al., 2013; Walker et al., 2010).

NOTES

1. It is important to note that policy instruments exist at *all* stages of the policy process – with specific tools such as stakeholder consultations and government reviews intricately linked to agenda-setting activities, ones like legislative rules and norms linked to decision-making behaviour and outcomes, and others linked to policy evaluation, as *ex post*, or after-the-fact, cost benefit analyses.
2. Research into the tools and mechanisms used in intergovernmental regulatory design also identified several other such instruments, including 'treaties' and a variety of 'political agreements' that can affect target group recognition of government intentions and vice versa (Bulmer, 1993; Doern & Wilks, 1998; Harrison, 1999). Other research into interest group behaviour and activities highlighted the existence of tools related to group creation and manipulation, including the role played by private or public sector patrons in aiding the formation and activities of such groups (Burt, 1990; Pal, 1993; Phillips, 1991; Nownes & Neeley, 1996). Still others specialized in research into aspects of contemporary policy-making that highlighted the use of procedural techniques such as the provision of research funding for, and access to, investigative hearings and tribunals (Gormley, 1989; Jenson, 1994; Salter et al., 1981).
3. Tinbergen analysed what he termed the 'normal' case in which it was possible to match one goal with one target so that one instrument could fully address its task and accomplish the goal set out for it. As Tinbergen (1952) himself argued, however, '*a priori* there is no guarantee that the number of targets always equals the number of instruments' (p. 37) and 'it goes without saying that complicated systems of economic policy (for example) will almost invariably be a mixture of instruments' (p. 71).

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7. Patching versus packaging in policy formulation: assessing policy portfolio design[1]
Michael Howlett and Jeremy Rayner

INTRODUCTION: POLICY PORTFOLIOS AND POLICY DESIGN

Policy design is an activity that unfolds in the policy process as policy actors deliberate and interact over the construction of both the means or mechanisms through which policy goals are given effect and the goals of policy themselves. It is the effort to more or less systematically develop efficient and effective policies through the application of knowledge about policy means gained from experience, and reason, to the development and adoption of courses of action that are likely to succeed in attaining their desired goals or aims (Bobrow & Dryzek, 1987; see also Bobrow, 2006; Dorst, 2011). But public policies are comprised of complex arrangements of policy goals and policy means which can be packaged in a more, or a less, systematic fashion. Why this is the case and how thinking about policy design can be advanced and made more systematic is the subject of this chapter.

Like 'planning', policy design theory has its roots in the 'rational' tradition of policy studies, one aimed at improving policy outcomes through the application of policy-relevant knowledge to the crafting of alternative possible courses of action intended to address specific policy problems (Forester, 1989; May, 1991; Schön, 1988, 1992; Tinbergen, 1958, 1967; Voß et al., 2009).[2] But it extends beyond this to the consideration of the practices, frames of understanding and lesson-drawing abilities of policy formulators or 'designers' in adapting design principles to the particular contexts that call for policy responses (Bobrow, 2006; Schneider & Ingram, 1988).

Assessing policy designs and the extent to which policy-making can be considered to embody an intentional design logic begins with the recognition that in many circumstances, policy decisions will be more highly contingent and 'irrational' than in others (Cahill & Overman, 1990). That is, there is no doubt that in many cases policy-making is driven by situational logics and opportunism rather than careful deliberation and assessment (Cohen et al., 1972; Dryzek, 1983; Eijlander, 2005; Franchino & Hoyland, 2009; Kingdon, 1984).

This high level of contingency has led some critics and observers to suggest that policies cannot be 'designed' at all, at least in the sense that a house or a piece of furniture can be the product of conscious and systematic design fashioned and put into place by one or more 'designers'. But those who have written about policy design disagree with this assessment. Recognizing the dialectic existing between principle and context, they distinguish the formulation process from the actual design of a policy itself (Linder & Peters, 1988). In much the same way as the development of an architectural plan can be distinguished from its engineering or construction manifestations, optimal policy designs in this sense can be thought of in a 'meta' or abstract sense as 'ideal types', that is, as configurations of elements which can reasonably be expected, if adopted with due attention given to

specific contextual settings and needs, to have a higher probability of delivering a specific outcome than some other configuration. Whether or not this potential is actually realized in practice is another matter and the subject of separate, although clearly related, investigation and inquiry.

This chapter explores this meta-orientation to the study of policy designs. Bracketing the actual process of policy formulation which may or may not provide auspicious conditions for a 'design orientation', it first revisits several 'first principles' for policy portfolio design found in the policy design literature and addresses the nature of the evaluative criteria used to distinguish 'good' from 'poor' design. Returning to the ground of actual policy-making, it then moves on to consider issues such as the 'degrees of freedom' or room to manouevre which designers have in developing and implementing their designs and the ideas of 'maximizing complementarity' and 'goodness of fit' with existing governance arrangements with which contemporary design theory is grappling. Finally, it develops the notion that two distinct and very different types of design processes have been incorrectly juxtaposed in the literature – 'policy patching' and 'policy packaging.' It suggests the former is more likely to be found in practice than the latter and should be the subject of further research in this area of policy and design studies. The chapter shows how the early design literature has been refined to incorporate some of the shortcomings identified by subsequent empirical research, and now approaches formulation and design issues fully taking into account restrictions on the abilities of designers to accomplish their designs in practice while offering realistic guidance on how these may be overcome.

POLICY DESIGN, POLICY PORTFOLIOS AND *EX ANTE* ASSESSMENT

Policy-makers typically consider several policy alternatives, some of which, or parts of which, may ultimately be implemented in the attempt to achieve desired outcomes. These are alternative options for how government action can be brought to bear to resolve some identified problem or attain some goal, and their articulation and consideration forms the basis of processes of policy formulation.

It is important to note that in this conception policy design is thus both a 'verb' – in the sense of characterizing one manner in which a policy formulation process can unfold in creating a policy configuration sensitive to the constraints of time and place – and also a 'noun' – in the sense of being an actual product or artefact that can be compared to others (May, 2003).

Policy design as a verb involves some process of coordinating disparate actors working in a given spatio-temporal context towards agreement on the content of designs-as-noun. These processes of policy design or formulation are interesting and complex and subjects of inquiry in their own right but, as noted above, can be separated, at least in the abstract, from the 'design-as-noun' itself. Again, to use an architectural metaphor, this is true in much the same way as craftsmanship and skill in construction are significant factors involved in realizing a building vision but can be considered separately from the vision itself; this vision can be assessed not only against its concrete realization but also against aesthetic and other criteria for distinguishing 'good' from 'poor' designs (Doremus, 2003; Gero & Smith, 2009; May, 2003; McLaughlin & Gero, 1989).

But what is it that is 'designed' in policy design? In all but the very simplest contexts, policy alternatives are options for government action comprised of different sets of policy means – that is, policy tools and their calibrations – bundled together into packages of measures which are expected by their designers to be capable of attaining specific kinds of policy outcomes (Hongtao & Feiock, 2012; Howlett, 2005, 2011).[3] 'Policy designs' in this sense refer to how specific types of policy tools or instruments are bundled or combined in a principled manner into policy 'portfolios' or 'mixes' in an effort to attain policy goals.

Analysing policy design in the context of such policy portfolios raises a series of questions about how exactly the superiority of the design of one mix over another can be assessed *ex ante*. A design perspective in general assumes that not all designs are equal nor is one design just as good as any other, and a subject of much interest to students of policy designs, therefore, is the nature of the evaluative criteria which can be used to identify 'better' or more 'intelligent' designs and distinguish them from 'poor' designs, and from 'non-designs'.

Various design principles have been articulated at various points in the history of studies of policy formulation and policy tool choice with this end in mind, and the merits and demerits of some of these efforts are set out below. As shall be discussed, rules or maxims have been proposed both about how many tools and goals there should be in a bundle and about how tools should be combined in order to stand the best chance of attaining these goals (Tinbergen, 1952). The former is a subject which received some attention as early as the 1950s and resulted in the development of several principles of policy design which emphasized aesthetics of simplicity and elegance. The latter issue received some attention in the 1970s and 1980s as scholars emphasized a need to avoid unreflexive preferences for the use of highly coercive tools on the part of governments and instead urged sequenced designs which began slowly with the use of the least 'interventionist' tools possible before 'moving up' to the use of more coercive designs only if less coercive ones proved unable to accomplish stated goals.

While these areas were the subjects of most early thinking about policy mixes, more recent design thinking has begun to address a second series of questions related to the larger issues of how and to what extent tools must not only be related logically or evidentially to each other but must also match their policy environments in order to be both practically feasible as well as theoretically elegant. That is, designs have come to be seen as involving the need to go beyond just a logical or theoretical match of policy elements to goals but also must involve a match between the social construction and ecological adaptation of policy (Lejano, 2006), or between 'principle' and 'context' (Lejano & Shankar, 2013). In much the same way, architectural designs can either ignore or reflect and incorporate their geo-physical settings, with most designers advocating the latter course as generating more pleasing and effective results.

This more recent thinking about the nature of policy mixes and their design has raised several new issues for policy design thinking, which add an additional layer of complexity to earlier analyses and principles. Older concepts such as 'consistency', 'coherence' and 'congruence,' which set out the goals towards which complex designs should aspire, have now been joined by other considerations such as those concerning what level or 'degrees of freedom' designers have in moving towards new designs or building on old ones. Such considerations often promote 'policy experiments' or trial runs and pilot projects, which may or may not be scaled up into full-blown programmes depending on their outcomes,

as a means to determine policy fit to practice (Hoffmann, 2011; Vreugdenhil et al., 2012). These have led to suggestions for more resilient or adaptable designs that retain adequate 'flexibility' or adaptive elements to allow them to be adjusted later to changing circumstances (Vreugdenhil et al., 2012; Walker et al., 2010).

These studies take very seriously the need to 'match' design to both spatial and temporal contexts that were lacking in earlier studies. To this end they have developed a new set of maxims to replace those earlier ones often found faulty or limited when applied to policy-making practice. These include injunctions such as those urging flexibility cited above as well as those urging policy formulators to 'maximize complementary effects' in their choice of tools and goals. They also include precepts related to the need to better match policy designs and policy designing or formulation activities, such as considerations of how to assess the goodness of fit between policy elements and their environments in the effort to match policy designs with governance contexts. These existing and new design principles and maxims are discussed in more detail below.

OLDER DESIGN MAXIMS AND THEIR PROBLEMS

Contemporary thinking about policy formulation and policy designing is firmly rooted in an older literature on policy design which over the course of the 1950s to 1990s developed several maxims or heuristics to head off common errors or sources of failure in policy-making. These included the promotion of parsimonious tool use in policy mixes, the injunction to begin with less coercive tools and only move towards increased coercion of policy targets as necessary, and the adoption of the above-mentioned notions of coherence, consistency and congruence as criteria for assessing the level of optimality of the arrangement of elements in a policy mix. Although a good start, only limited empirical evidence supported the accuracy and utility of these principles, which tended to underestimate the difficulties involved in formulating and implementing complex policy mixes. As these faults were recognized, efforts to think about more complex policy designs have led to a new generation of design thinking in this area and the articulation of a new set of principles and practices that are expected to result in superior designs; that is, ones more likely to reach their targets and achieve their goals (Howlett & Lejano, 2013; McConnell, 2010a, 2010b; Swanson et al., 2010).

Parsimonious Tool Use

The first and oldest maxim in the policy design literature is the injunction to observe parsimony in tool selection. An oft-cited rule in this area was first put forward by Jan Tinbergen in 1952 (Tinbergen, 1952), to the effect that the 'optimal ratio of the number of tools to targets' in a policy should be 1:1 (Knudson, 2009). That is, the number of policy tools in any mix should roughly match the number of goals or objectives set for a policy.

This may appear to be a reasonable rule of thumb, for which Tinbergen provided some logical justification in his discussion of the information and administrative costs associated with the employment of redundant tools in the area of economic policy-making. In his work, for example, Tinbergen analysed what he termed the 'normal' case in which one goal was matched with one target in a simple situation in which one instrument could fully

address its task and accomplish the goal set out for it. Most observers, however, including Tinbergen, were well aware that in practice combinations of tools are typically used to address single and especially multiple policy goals, not a single instrument addressing a single goal. In such circumstances, as Tinbergen noted, 'it goes without saying that complicated systems of economic policy (for example) will almost invariably be a mixture of instruments' (1952, p. 71). As a result, he himself argued, 'a priori there is no guarantee that the number of targets (goals) always equals the number of instruments' (p. 37).

Such admonitions and caveats about design complexity, unfortunately, were usually neglected in studies ostensibly based on Tinbergen's work, with many erstwhile designers attempting to force complex situations into the more simple mould required for Tinbergen's rule to apply (Knudson, 2009). More contemporary thinking about policy design, however, begins not with single instrument choices at specific moments in time *ex nihilo* but rather with considerations of designing mixes of tools which specifically take into account the spatio-temporal complexities missing in earlier design studies (Howlett, 2005, 2011). Thus, they move well beyond the Tinbergen rule in the effort to inform modern design contexts and practice in a meaningful way.

Moving Up the Scale of Coercion in Sequential Instrument Choices

A second principle of policy design found in the older literature on the subject, in addition to the injunction to be parsimonious in the number of instruments chosen at a specific point in time in order to attain a goal, was to be sparing in their use dynamically or sequentially over time. In the mid 1970s and early 1980s, for example, Bruce Doern, Richard Phidd, Seymour Wilson and others published a series of articles and monographs that placed policy instruments on a single continuum based on the 'degree of government coercion' each instrument choice entailed (Doern, 1981; Doern & Phidd, 1983; Tupper & Doern, 1981).[4] They argued that choices of tools, or policy designs, should only 'move up the spectrum' of coercion as needed so that the 'proper' sequencing of tool types in a policy mix would be from minimum levels of coercion towards maximum ones (Doern & Wilson, 1974). Assuming that all instruments were more or less technically 'substitutable' or could perform any task – although not necessarily as easily or at the same cost – it was argued that in a liberal democratic society, governments, often for both ideological and pragmatic reasons, would prefer to, and should, use the least coercive instruments available and would only employ more coercive ones as far as was necessary in order to overcome societal resistance to attaining their goals. As Doern and Wilson (1974, p. 339) put it:

> politicians have a strong tendency to respond to policy issues, (any issue) by moving successively from the least coercive governing instrument to the most coercive. Thus they tend to respond first in the least coercive fashion by creating a study, or by creating a new or re-organized unit of government, or merely by uttering a broad statement of intent. The next least coercive governing instrument would be to use a distributive spending approach in which the resources could be handed out to constituencies in such a way that the least attention is given as to which taxpayers' pockets the resources are being drawn from. At the more coercive end of the continuum of governing instruments would be a larger redistributive programme, in which resources would be more visibly extracted from the more advantaged classes and redistributed to the less advantaged classes. Also at the more coercive end of the governing continuum would be direct regulation in which the sanctions or threat of sanctions would have to be directly applied.

This rationale for instrument choice clearly took policy context into account in making design decisions and moved design discussions such as Tinbergen's forward in that respect. That is, Doern and his colleagues' work was based on an appreciation of the ideological preferences of liberal democratic societies for limited state activity and on the difficulties this posed for governments in the exercise of their preferences due to the relative 'strength' or ability of societal actors to resist government efforts to shape their behaviour.

This formulation has many advantages as a design principle. It is not uni-dimensional, although it might appear so on first reading, because it does take into account several political and contextual variables and assumes instrument choices are multi-level, with finer calibrations of instruments emerging after initial broad selections of tools have been made (Howlett, 1991). Preferring 'self-regulation', for example, governments might first attempt to influence overall target group performance through exhortation and education efforts and then add instruments to this mix only as required in order to compel recalcitrant societal actors to abide by their wishes, eventually culminating, if necessary, in regulation or the public provision of goods and services.

This maxim was based on observations of the actual design practices followed by many governments, which were used to develop and inform a set of principles informing 'proper' or appropriate overall tool preferences. However, as Woodside argued, it was lacking in several ways. As he put it:

> Experience suggests that governments do not always seek to avoid coercive solutions, but indeed, may at times seem to revel in taking a hard line from the start. While there are undoubtedly many reasons for these heavy handed responses, surely some of the most important ones include the constituency or group at which the policy is aimed, the circumstances in which the problem has appeared, and the nature of the problem involved. (Woodside, 1986, p. 786)

Hence, although suggestive, this second design principle also needed nuance and revision. These and other similar concerns led to further efforts in the 1990s to deal with the complexities of policy design, especially in the context of mixes or bundles of tools.

Coherence, Consistency and Congruence as Measures of Design Integration and Criteria of Superior Design

These early efforts from the 1970s and 1980s to articulate fundamental policy design principles were overtaken in the 1990s by work which focused on the need to articulate a set of general principles that would more clearly inform the selection of the various parts of a mix or portfolio, bracketing for a moment the issue of formulation processes and policy outcomes. Here it was noted that policies are composed of several elements: abstract or theoretical/conceptual goals; specific programme content or objectives; and operational settings or calibrations (Cashore & Howlett, 2007; Hall, 1993; Howlett & Cashore, 2009), as set out in Table 7.1. The central criterion that the design literature developed to relate these multiple parts of a policy was the notion of 'integration', or the idea that goals and means within mixes should not work at cross-purposes but mutually reinforce each other (Briassoulis, 2005; Meijers, 2004; Meijers & Stead, 2004).

That is, moving beyond Tinbergen's rule, it was argued that some correspondence across elements was required if policy goals were to be successfully matched with policy means (Cashore & Howlett, 2007; Meijers, 2004). And it was argued that a relatively small

Table 7.1   Components of a policy mix

| | | Policy content | | |
		High-level abstraction	Programme-level operationalization	Specific on-the-ground measures
Policy focus	Policy ends or aims	*Goals* What general types of ideas govern policy development? (e.g. environmental protection, economic development)	*Objectives* What does policy formally aim to address? (e.g. saving wilderness or species habitat, increasing harvesting levels to create processing jobs)	*Settings* What are the specific on-the-ground requirements of policy? (e.g. considerations about the optimal size of designated stream-bed riparian zones or sustainable levels of harvesting)
	Policy means or tools	*Instrument logic* What general norms guide implementation preferences? (e.g. preferences for the use of coercive instruments or moral suasion)	*Mechanisms* What specific types of instruments are utilized? (e.g. the use of different tools such as tax incentives or public enterprises)	*Calibrations* What are the specific ways in which the instrument is used? (e.g. designations of higher levels of subsidies, the use of mandatory versus voluntary regulatory guidelines or standards)

Source: Howlett et al. (2014).

number of criteria could be identified to help assess the extent to which existing or future mix elements were integrated (Howlett & Rayner, 2007).

Previous work on policy design had identified one such evaluative criterion in the notion of 'consistency' or the ability of multiple policy tools to reinforce rather than undermine each other in the pursuit of policy goals. A second criterion related to goals rather than means. Here the idea of 'coherence' or the ability of multiple policy goals to co-exist with each other and with instrument norms in a logical fashion was developed. Finally, the idea of 'congruence', or the ability of goals and instruments to work together in a uni-directional or mutually supportive fashion, rounded out these three integrative dimensions proposed for a superior policy design (Kern & Howlett, 2009).

The development of such criteria was a significant advance over the earlier works mentioned above and moved policy design thinking well beyond other frameworks developed around the same time which purported only to develop a series of 'hints' for policy-makers to follow in promoting better designs (Guy et al., 2008; Keast et al., 2007).

However, while clear enough in theory, these works raised to the forefront the need to, like Doern and his colleagues had done, reintegrate thinking about policy 'design-as-noun' with 'design-as-verb' or policy formulation (Howlett, 2014; Howlett et al., 2015). This was because empirical work on the evolution of long-term policies or 'institutions' highlighted how these three criteria were often only weakly represented in

existing mixes, especially those which have evolved over a long period of time (Howlett & Rayner, 2006; Rayner & Howlett, 2009). That is, empirical research into policy designs in practice revealed considerable gaps between the coherency, consistency and congruence of actual policy mixes compared to their theoretical specification and highlighted the need to consider the temporal evolution of tool portfolios, much as Doern and his colleagues had done several decades earlier (Kaufmann & Gore, 2013).

MODERN PRINCIPLES OF POLICY DESIGN: COMPLEMENTARY EFFECTS, GOODNESS OF FIT AND DEGREES OF FREEDOM

Recent design thinking has built on this basis in earlier studies and has underlined the importance of considering both the full range of policy instruments when designing a mix – rather than assuming that a choice must be made between only a few alternatives such as regulation versus market tools (Gunningham et al., 1998) – as well as ensuring that a proposed mix is compatible with existing governance arrangements (Ben-Zadok, 2013). Towards this end, several new principles have emerged in the current design literature. These include 'maximizing complementary effects' and 'goodness of fit', or attempting to ensure a good fit between a policy's elements and between those elements and their governance context.

Maximizing Complementary Effects

A major issue and insight driving contemporary design studies concerns the fact that not all of the tools potentially involved and invoked in a policy mix are inherently complementary (Boonekamp, 2006; Del Rio et al., 2011; Grabosky, 1995) in the sense that they may evoke contradictory responses from policy targets (Schneider & Ingram, 1990a, 1990b, 1993, 1994, 1997) and thus fail to achieve their goals. At the same time, of course, some combinations may also be more virtuous in the sense of providing a mutually reinforcing or supplementing arrangement (Hou, 2010). Similarly, some other arrangements may be unnecessarily duplicative while in others some level of redundancy may be advantageous in ensuring that a stated goal will be achieved (Braathen, 2005, 2007).

Grabosky (1995) and others worked on these issues throughout the mid to late 1990s, noting that some tools necessarily counteract each other – for example, using command and control regulation while also attempting voluntary compliance – and thus those combinations should be avoided in 'smart' policy designs. Hou and Brewer (2010) similarly worked on the other side of this design coin, noting that other tools complement or supplement each other – for example, using command and control regulation to prevent certain behaviour deemed undesirable and financial incentives to promote more desired activities at the same time – and thus those combinations should be encouraged.

A key principle of current policy design thinking, therefore, is to try to maximize supplementary effects while minimizing counterproductive ones. 'Smarter' designs are thus said to involve the conscious creation of policy packages which take these precepts into account in their formulation or packaging (Ben-Zadok, 2010; Eliadis et al., 2005; Grabosky, 1995; Gunningham & Sinclair, 1999).

Goodness of Fit: The Need for Designs to Match Governance Mode and Policy

Contemporary design thinking also highlights the need for designs to respond not only to such general theoretical design principles but also to the particular, context-dependent features of the policy sector involved (Howlett, 2011). In this sense, 'goodness of fit' between the policy mix and its governance context is a concern and can be seen to occur at several different levels.

That is, at one level design choices emerge from and must generally be congruent with the governance modes or styles practised in particular jurisdictions and sectors. This is because different orientations towards state activity involved in policy mixes require specific capabilities on the part of state and societal actors which may only be forthcoming if the mix matches the governance context. Policy designs, it is argued, thus must take into account the actual resources available to a governmental or non-governmental actor in carrying out their appointed roles in policy implementation (Howlett, 2009). For example, planning and 'steering' involve direct coordination of key actors by governments, requiring a high level of government policy capacity to identify and utilize specific policy tools capable of successfully moving policy targets in a required direction (Arts et al., 2000; Arts et al., 2006).

Work on 'policy styles' (Freeman, 1985; Kagan, 2001; Richardson et al., 1982) in the 1980s and 1990s identified a number of common patterns and motifs in governance arrangements in specific sectors and jurisdictions which contemporary design theory argues that designs in different jurisdictions should reflect (Howlett, 2009, 2011; Kiss et al., 2013). While many permutations and combinations of possible governance arrangements exist, recent policy and administrative studies have focused on four basic or 'ideal' types found in many jurisdictions and sectors in liberal democratic states. These are the legal, corporate, market and network governance forms (Table 7.2). Government actions through legal and network governance, for example, can change many aspects of policy behaviour but do so indirectly through the alteration of the relationships existing between different kinds of social actors (Weaver, 2009a, 2009b). This is unlike corporate and market governance, which involve more overt state direction. Each mode has a different focus, form of control, aim, a preferred service delivery mechanism and procedural policy orientation which policy designs should incorporate and approximate if they are to be feasible.

This relationship between governance style or context and the policy instruments and goals contained in a policy mix is a significant one for studies of policy design. Since the exact processes by which policy decisions are taken vary greatly by jurisdiction and sector and reflect differences between and within different forms of government – from military regimes to liberal democracies – as well as the particular configuration of issues, actors and problems found in particular areas or sectors of activity – such as health, education, energy and transportation, social policy and many others (Howlett et al., 2009; Ingraham, 1987) – the existence of a relatively small number of overarching governance modes allows for the matching of design and context in an easily understandable and applicable fashion.

Degrees of Freedom

A third key concept that has emerged in contemporary design thinking around this same issue is that of 'degrees of freedom' or the consideration of the relative ease or difficulty

Table 7.2   Modes of governance

Mode of governance	Central focus of governance activity	Form of state control of governance relationships	Overall governance aim	Prime service delivery mechanism	Key procedural tool for policy implementation
Legal governance	Legality – promotion of law and order in social relationships	Legislation, law and rules	Legitimacy – voluntary compliance	Rights – property, civil, human	Courts and litigation
Corporate governance	Management – of major organized social actors	Plans	Controlled and balanced rates of socio-economic development	Targets – operational objectives	Specialized and privileged advisory committees
Market governance	Competition – promotion of small and medium-sized enterprises	Contracts and regulations	Resource/cost efficiency and control	Prices – controlling for externalities, supply and demand	Regulatory boards, tribunals and commissions
Network governance	Relationships – promotion of inter-actor organizational activity	Collaboration	Co-optation of dissent and self-organization of social actors	Networks of governmental and non-governmental organizations	Subsidies and expenditures on network brokerage activities

Source: Modified from Considine (2001) and English and Skellern (2005).

with which policy-makers can alter the status quo. That is, if any combination of tools was possible in any circumstance, decision-makers could be thought of as having unlimited 'degrees of freedom' in their design choices. Empirical studies of large-scale institutional changes, however, have noted this kind of freedom in combining design elements is quite rare. For example, it can occur in situations of what Thelen (2003) terms 'replacement' or 'exhaustion' when older tool elements have been swept aside or abandoned and a new mix is designed or adopted from nothing. As Thelen noted, however, most existing mixes or portfolios have instead emerged from a gradual historical process in which a policy mix has slowly built up over time through processes of incremental change or successive reformulation. As Christensen et al. (2002) have argued, a key design issue is thus the leeway policy designers have in developing new designs given the pre-existence of historical arrangements of policy elements. This has added a significant temporal dimension to policy design studies which early generations of thinking either ignored or downplayed.

That is, in addition to the requirements of 'goodness of fit' with prevailing governance modes, there are also constraints imposed by existing trajectories of policy development. As Christensen et al. (2002) note, 'these factors place constraints on and create opportunities for purposeful choice, deliberate instrumental actions and intentional efforts taken by political and administrative leaders to launch administrative reforms through administrative design' (p. 158).

A subject of much current interest in contemporary design studies is how much room for manoeuvre designers have to be creative (Considine, 2012) or, to put it another way, to

what degree they are 'context bound' in time and space (Howlett, 2011). From the historical neo-institutionalist literature cited above it is well understood that complex policy mixes, like institutions, can emerge through several distinct processes or historical trajectories (Béland, 2007; Hacker, 2004a; Thelen, 2003, 2004). These trajectories – 'layering', 'drift' and 'conversion' – differ from 'replacement' and 'exhaustion' in terms of the challenges that they raise for each generation of designers attempting to integrate policy elements in effective, complementary or 'smart' mixes with coherent goals, consistent means, and congruency of goals and instruments. Layering is a process whereby new elements are simply added to an existing regime without abandoning previous ones, typically leading to both incoherence amongst the goals and inconsistency with respect to the instruments and settings used. Drift occurs when the elements of a policy mix are deliberately maintained while the policy environment changes. The impact of the policy mix is thus likely to change and this is the result that the designer wants to achieve (Hacker, 2004b). Conversion involves holding most of the elements of the policy mix constant while redeploying the mix to serve new goals (van der Heijden, 2010). While retaining consistency, conversion poses significant risks of incongruence between the old instrument elements and the new goals that have been introduced.

Replacement is thus not the only, or even necessarily the only desirable, historical context for policy design; it simply imposes the smallest number of constraints on successful design. Except in the case of completely new policy areas or old ones facing the kind of total overhaul envisaged in periods of policy punctuations, however, policy designers are typically faced with a situation in which an already existing policy mix is already in place and cannot be easily discarded (Falkenmark, 2004).[5]

These existing arrangements have commonly emerged or evolved over relatively long periods of time through rounds of previous decisions, and even if they had a clear logic and plan at the outset they may no longer do so (Bode, 2006). Designers' freedom is thus hemmed in on two sides. First, existing mixes often have accumulated varying degrees of political support from those who benefit from them, ruling out complete replacement (Howlett & Rayner, 1995; Orren & Skowronek, 1998; Rayner et al., 2001). In such cases where key instruments in the mix are defended by powerful 'instrument constituencies', layering can be an appropriate response since these interests may have no objection to the addition of new instruments provided only that 'their' instrument is not touched. Conversion, on the other hand, may be indicated where these instrument constituencies can be persuaded that their favoured instruments may actually be strengthened by the addition of new goals that bring in new political support for the existing mix. Drift can also be the favourite strategy of political interests who are not strong enough to destroy a policy mix whose goals they dislike but, by blocking necessary change, may succeed in reducing or even transforming its impact to something more palatable to them (Hacker, 2005).

POLICY PACKAGING AND POLICY PATCHING AS DESIGN METHODS

This last point raises another area of interest in current design studies, that of the basic mode or style of policy-making best suited to realizing policy designs. An important

insight in this regard is that designers can recognize and manipulate the relationships involved in processes such as layering, drift and conversion, just as they can those related to replacement and exhaustion (van der Heijden, 2012).

Hacker, for example, has argued that layering, in many ways the simplest way of changing a policy mix, is a process that can ultimately induce conversion. This is because, as new instruments and goals are added into the mix without abandoning the previous ones, new possibilities for relating goals to instruments open up (Kay, 2007). Drift, on the other hand, may be deliberately used to engineer a crisis in which replacement becomes a real possibility as the impact of a policy mix diverges ever more obviously from that intended by its original designers, shedding political support along the way. Layering may have a similar outcome while employing the opposite political mechanism when a new instrument, originally a minor part of the policy mix, gradually assumes prominence, perhaps as the result of setting or calibration changes, and attracts defectors from other instrument constituencies (Streeck & Thelen, 2005). In such situations designers can attempt to patch or restructure existing policy elements rather than propose alternatives de novo in a new package of measures (Hickle, 2014; Howlett et al., 2015).

Although there is a strong tradition in the design literature to restrict discussions of design to situations characterized by processes of replacement and exhaustion, there is ample existing evidence showing that many existing policy regimes or mixes have instead developed through processes of policy layering, or repeated bouts of policy conversion or policy drift, in which new tools and objectives have often been piled on top of older ones, creating a palimpsest-like mixture of inconsistent and incoherent policy elements (Carter, 2012). Sweeping it all away and starting again with custom-made policy designs capable of meeting contemporary policy challenges may seem to be the obvious solution. Policy packaging of this kind, which deliberately seeks to exploit synergistic relationships between multiple policy instruments, was definitely the explicit or implied preference in most earlier efforts to promote enhanced policy integration and coherence in designs across different policy domains (Briassoulis, 2005; Meijers, 2004; Meijers & Stead, 2004).

However, recognizing that layering, conversion and drift can also be 'intentionally' designed – much in the same way as software designers issue 'patches' for their operating systems and programs in order to correct flaws or allow them to adapt to changing circumstances – is a critical insight into design processes with which contemporary design studies is beginning to grapple. Distinguishing between policy packaging and policy patching as two methods of attaining the same goal – the heightened coherence, consistency and congruence of complementary policy elements coupled with a better fit between tools and their context – is a needed step to move beyond older principles of parsimony and the inexorable use of less coercive tools and enhance the ability of policy formulators to deal with policy problems that demand complex governmental responses (deLeon, 1988).

CONCLUSION: POLICY DESIGN AND THE FEASIBILITY OF POLICY ALTERNATIVES

The purpose and expectations of policy design efforts have always been clear (Dryzek & Ripley, 1988; Linder & Peters, 1990a). Design is an activity conducted by a number of policy actors in the hope of improving policy-making and policy outcomes through the

accurate anticipation of the consequences of government actions and the articulation of specific courses of action to be followed. This is to be accomplished by improving assessments of both the theoretical effectiveness as well as the feasibility of policy alternatives (Gilabert & Lawford-Smith, 2012; Linder & Peters, 1990b; Majone, 1975; May, 2005).

Each 'policy', however, is a complex 'regime' or arrangement of ends and means-related goals, objectives, instruments and calibrations which exist in a specific governance setting and which change over time. Central concerns in the design of policies are thus related to questions about how these mixes are constructed, which methods yield superior results and what is the likely result of their (re)design. Understanding these aspects of policy formulation and design and synthesizing knowledge about them into a small number of precepts which policy formulators can follow in their work has always been at the forefront of policy design work. However, these considerations must take into account the fact that 'policies' are typically 'bundles' or 'portfolios' of policy tools arranged in policy mixes and that such bundles are typically the outcome of distinctive processes of policy change, in which elements are added and subtracted from the mix over time. Early work on policy design did not always take this to heart. Clarifying the principles enunciated and articulated by early policy design proponents and applying them to policy mixes, and distinguishing between intentional and unintentional process of policy change in the development of such bundles, has been a central feature of contemporary policy design study and efforts to move policy design processes and understanding forward.

While policy designs can and should be considered in the abstract, understanding how policy change processes create and modify mixes is critical to evaluating the chance of success for any particular policy mix to attain its goals once put into practice. Adding the notion of policy 'patching' to considerations of intelligent design, for example, better connects design considerations to practice than do many earlier discussions firmly centred in the 'planning' orientation. These often rely upon ideas about the ease or need for wholesale policy replacement that do not exist in practice.

Contemporary design discussions centred on the articulation of design principles such as 'goodness of fit' in policy formulation, governance and steering, and the 'degrees of freedom' which formulators or designers have in carrying out their work both over space and over time, help to complement and advance earlier notions such as parsimony, the gradual ratcheting of coercion, and the need for coherence, consistency and congruence in designs that were a major feature of earlier eras of thinking about design issues.

NOTES

1. This chapter was originally published as Michael Howlett and Jeremy Rayner (2013), *Politics and Governance*, 1(2), 170–82. This article is licensed under a Creative Commons Attribution 3.0 International License.
2. Policy design as a verb shares a large number of features in common with 'planning' but without the strategic or directive nature often associated with the latter. Policy design is much less technocratic in nature than these other efforts at 'scientific' government and administration. However, it too is oriented towards avoiding many of the inefficiencies and inadequacies apparent in other, less knowledge-informed ways of formulating policy, such as pure political bargaining, ad hocism or trial and error. In general, though, it is more flexible than planning in developing general sets of alternatives rather than detailed directive 'plans'.
3. The need to bundle or mix policy tools together in complex arrangements raises many significant questions for policy design, especially with respect to the nature of decisions about the choice of policy tools and instruments, the nature of the processes of policy formulation and the manner in which tool choices evolve over time.

4. They first placed only self-regulation, exhortation, subsidies and regulation on this scale but later added in categories for 'taxation' and public enterprise and finally, an entire series of finer 'gradations' within each general category.

5. Many sustainability strategies have suffered from layering, for example efforts at the integration of various resource management regimes that have failed when powerful interests are able to keep favourable goals, instruments and settings, such as unsustainable fishing or timber cutting quotas that support an industry, and limit the impact of new policy initiatives. Drift is a common situation in welfare state mixes whereby, for example, goal shifts from family to individual support (and vice versa) have occurred without necessarily altering the instruments in place to implement the earlier policy goal. Conversion has characterized some major health policy reform efforts. Lack of a sustained and focused effort on the part of designers, however, can easily lead to changes in only goals or instruments and hence accomplish changes through drift or conversion, resulting in sub-optimal or disappointing results.

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8. The elements of effective program design: a two-level analysis[1]
Michael Howlett, Ishani Mukherjee and Jeremy Rayner

INTRODUCTION: UNDERSTANDING THE RELATIONSHIP BETWEEN POLICY DESIGN AND PROGRAM DESIGN

Policy design is a major theme of contemporary policy research, aimed at improving the understanding of how the processes, methods and tools of policy-making are employed to better formulate effective policies and programs, or to understand the reasons why such designs are not forthcoming (Howlett et al., 2015). However, while many efforts have been made to evaluate policy design (Howlett & Lejano, 2013), less work has focused on program design (Barnett & Shore, 2009). This chapter sets out to fill this gap in our knowledge of design practices in government. It outlines the nature of the study of policy design with a particular focus on the design of programs and the lessons derived from empirical experience regarding the conditions that enhance program effectiveness.

Policy design is typically done through the application of knowledge about policy means gained from experience and reason to the development and adoption of courses of action expected to attain desired goals or aims (Howlett & Rayner, 2013). Program design is part of a general effort on the part of governments to systematically develop and implement efficient and effective policies (Bobrow & Dryzek, 1987; Bobrow, 2006).

Not all policies and programs are designed in this sense, however, and some programs and policies emerge from processes such as patronage, clientelism, bargaining or log-rolling in which the quality of the causal or logical linkages between different components of a program may be less significant than other values, such as political or electoral gain or loss avoidance. However, many policies and programs result from more deliberate efforts on the part of governments to forge a clear relationship between policy goals and the means used to address them (Dorst, 2011).

The chapter is organized as follows. The main segment distills and presents existing knowledge about effective practice in program design. By illustrating programs as an intermediary level of policy-making situated between broad policy goals on the one hand and specific settings of policy instrument combinations on the other, it briefly elaborates the evolution of modern principles defining effective design. Research findings and evidence about effective practice are then used to identify the various design needs that must be addressed for effective policy programs to emerge from a design process. In particular, this section derives lessons about maximizing complementarity between policy components, enhancing the goodness of fit between program elements and governance contexts and understanding the design constraints that limit the degrees of freedom available for program design.

Table 8.1   Components of a policy mix and the position of policy programs therein

Policy Content	Policy Content High-level Abstraction (Policy Level)	Operationalization (Program Level)	On-the-Ground Specification (Measures Level)
Policy Ends or Aims	POLICY GOALS What general types of ideas govern policy development? (e.g. environmental protection, economic development)	PROGRAM OBJECTIVES What does policy formally aim to address? (e.g. saving wilderness or species' habitat, increasing harvesting levels to create processing jobs)	OPERATIONAL SETTINGS What are the specific on-the-ground requirements of policy? (e.g. considerations about sustainable levels of harvesting)
Policy Means or Tools	INSTRUMENT LOGIC What general norms guide implementation preferences? (e.g. preferences for the use of coercive instruments or moral suasion)	PROGRAM MECHANISMS What specific types of instruments are utilized? (e.g. the use of different tools such as tax incentives or public enterprises)	TOOL CALIBRATIONS What are the specific ways in which the instrument is used? (e.g. designations of higher levels of subsidies, the use of mandatory versus voluntary regulatory guidelines or standards)

Source: Howlett and Rayner (2013, p. 8).

THE COMPONENTS OF PUBLIC POLICY AND EFFECTIVE PROGRAM DESIGN

In one sense of the term, program 'design' is a verb describing the manner in which the policy formulation process creates a program that is sensitive to context-specific constraints. However, 'design' is also a noun describing the resulting policy product that emerges from the formulation process.

What is it that is 'designed' in program design? Here it is important to recognize (Table 8.1) that policies are composed of several elements, distinguishing between abstract or theoretical/conceptual goals, specific program content or objectives and operational settings or calibrations (Hall, 1993; Howlett & Cashore, 2007, 2009). A policy design consists of specific types of policy tools or instruments that are bundled or combined in a principled manner into policy 'portfolios' or 'packages' in an effort to attain often multiple policy goals and aims. Programs are one component or level at which such designs emerge.

Each of these component elements is conceived and created by policy-makers in the course of the policy-making process. Some components of a policy are very abstract and exist at the level of general ideas and concepts about policy goals and appropriate types of policy tools which can be used to achieve them. Others are more concrete and specific and directly affect administrative practice on the ground. Programs exist between these two levels, operationalizing abstract goals and means and encompassing specific on-the-ground measures and instrument calibrations.

Seen in this larger context, a policy 'program' is a distinctive part of a policy portfolio

comprised of a combination of policy instruments or program mechanisms, arranged to meet operationalizable policy objectives (Howlett, 2011). Policy programs thus occupy a central position translating high-level goals and instrument logics and aspirations into operationalizable measures which can be implemented on the ground in specific policy circumstances (Guy et al., 2008).

That is, as presented in Table 8.1, the elements occupying these different levels of policy design are related to one another in a nested fashion. Program design thus requires an integrated view of the different levels of policy goals and means in order to ensure that the elements which compose a program reinforce rather than contradict or conflict with either general, abstract principles or specific on-the-ground measures and mechanisms (Meijers & Stead, 2004; Briassoulis, 2005).

An Example: US Conservation Policy and the Conservation Reserve Program Therein

Exactly how different abstract and concrete policy elements should be combined to create effective and efficient programs is the central question and problem facing program designers. To illustrate the above conceptualization further, examples from US land conservation policy and a constituent Payments for Ecosystem Services (PES) program are presented here. The US government, through the Conservation Reserve Program (CRP), currently makes payments of about US$1.8 billion per year through contracts with almost 700,000 farmers and landowners, who agree to withhold agricultural activity on 26.8 million acres of ecologically sensitive land (USDA, 2013). Instead of farming on sensitive areas of their land, these farmers agree to 'remove environmentally sensitive land from agricultural production and plant grasses or trees that will improve water quality and improve waterfowl and wildlife habitat' (USDA, 2013). The CRP is the largest PES program globally.

In implementing the CRP, the high-level abstraction of the policy level (Table 8.2) includes the general policy goals and instrument logics which inform the general contours and content of both policy and program, as well as mechanism, design. The main *goal* of overall land conservation policy in the United States in this sense recognizes that most of the benefits obtained from ecosystem services, such as water quality, carbon sequestration, climate regulation, recreation, nutrient cycling, erosion prevention and soil creation, occur as positive externalities or benefits that are unaccounted for by the economy. In addition, these services emerge out of the preservation of natural systems and their conservation often conflicts with extractive economic activities, such as intensive agriculture. In this example the conception of ecosystem services and their provision is a main general idea that governs policy development. The idea that payments can be made for the loss of ecosystem services is the instrument logic, or the body of norms that guide implementation preferences at the policy level. This embodies the understanding that since the economy will always undermine the provision of these non-market positive externalities, government-mandated compensation can be used to link the interests of landowners and external actors to the conservation of ecosystems (Wunder, 2007).

Supporting operationalization at the program level is the formulation of policy objectives and the related mechanisms that are used to meet them within this general policy goal and instrument logic (Table 8.2). The formal objective of the CRP is the conservation of a specific set of ecologically vital land areas to help improve water quality, mitigate soil erosion and diminish the depletion of wildlife habitat (USDA, 2013).

Table 8.2   Components of the US Conservation Reserve Program

	Policy Content High-level Abstraction (Policy Level)	Operationalization (Program Level)	On-the-Ground Specification (Measures Level)
Policy Ends or Aims	GOALS What general types of ideas govern policy development? (e.g. ecosystem services, or the benefits that people derive from natural systems, need to be secured since they are not accounted for and therefore undercut by the economy)	OBJECTIVES What does policy formally aim to address? (e.g. conserving, re-establishing valuable land cover to help improve water quality, prevent soil erosion and reduce loss of wildlife habitat)	SETTINGS What are the specific on-the-ground requirements of policy? (e.g. considerations about which land area types are a priority for the program, mechanisms for setting up payment transfers through local agencies)
Policy Means or Tools	INSTRUMENT LOGIC What general norms guide implementation preferences? (e.g. payments for ecosystem services or the logic that the use of financial instruments or creating markets are effective ways to secure ecosystem services by transforming the conservation of positive externalities into financial benefits for local providers)	PROGRAM MECHANISMS What specific types of instruments are utilized? (e.g. conditional cash transfers or payment contracts with landowners to conserve instead of develop ecologically sensitive areas)	TOOL CALIBRATIONS What are the specific ways in which the instrument is used? (e.g. rate of yearly payments, length (years) that contracts are valid, enrollment eligibility, adjusting for ecological sensitivity of land over time)

The *mechanisms* or the specific types of instruments adopted by the CRP take the form of conditional cash transfers or payment contracts with landowners to conserve ecologically sensitive acres on their land. Supplementary instruments in the 'package', symbolized by the CRP, include cost-sharing schemes by the implementing agency, in this case the Farm Service Agency (FSA), active in each state. Specific on-the-ground measures then involve adjustments to policy settings and the calibration of policy tools and tool mixes. In the CRP example (Table 8.2), the specific policy *settings* are the requirements related to the classification of land use, land cover types (such as wetland or riparian buffer zones or wildlife corridors) and the conservation priorities assigned to each, as well as other components such as how land parcels should be valued as well as how necessary payment arrangements should be chosen and set up through local land agencies. These on-the-ground settings then relate to the specific *calibrations* of the instruments contained within the CRP, including such features as the regular adjustment and fine-tuning of payment amounts, contract lengths, and eligibility criteria based on economic indicators such as national budgets and inflation.

POLICY PROGRAMS AND POLICY DESIGN: A SHORT HISTORY

The main emphasis of recent policy design research has been on the importance of utilizing the full range of policy components available when putting together a program while avoiding unnecessary duplication and conflicts between program components (Gunningham et al., 1998). Contemporary design thinking additionally recognizes the limitations placed on the adoption of program elements by their situation within an overall policy framework, and the need to match the more technical aspects of government financial and human resource availability and capabilities with existing levels of administrative capacity, budgeting and personnel resources, and other similar requirements of policy implementation.

Over time, researchers have articulated a series of principles to help promote better and more effective policy designs. Maxims for effective design that were developed in the late 1950s, for example, focused on efficiency concerns and urged the parsimonious use of policy tools. An oft-cited rule proposed by the Nobel Prize winning economist Jan Tinbergen in 1952 suggested that optimal designs emerged when the number of policy tools was directly proportional to the number of goals a policy was expected to achieve (Tinbergen, 1952; Del Rio & Howlett, 2013). This research obtained a dynamic component in the 1970s when scholars began to deal with questions about the proper 'sequencing' or phasing of policy efforts over time (Taeihagh et al., 2013). Studies by Doern and his colleagues, for example, promoted the idea that effective program design involved the initial use of the least coercive instrument expected to be able to address a problem, with governments moving up 'the scale of coercion' to use more intrusive instruments to achieve their policy goals only in response to the failure of less coercive tools (Doern & Wilson, 1974; Doern & Phidd, 1983; Woodside, 1986).

In recent years program design thinking has refined and expanded upon these insights. The articulation of principles of what constitutes a 'good' design has evolved from thinking about relatively simple 'one goal – one instrument' situations to address issues related to the use of more complex policy mixes or bundles of tools that aim to unite multiple interconnected goals and the means to achieve them across multiple levels of government (Howlett & Del Rio, 2015). Daugbjerg and Sønderskov (2012), in their review of organic food policies in Denmark, Sweden, the UK and the United States, for example, noted that 'significant growth in green markets is most likely to result where a combination of policy instruments directed at the supply side and demand side of the market is simultaneously implemented' (p. 415).

In pursuing research into the question of how to best formulate deliberate packaging of policy elements into programs targeted to meet certain policy goals, scholars and practitioners have focused on 'balancing' two aspects of the policy relationships set out in Table 8.1. These are the 'policy–program linkages' and the 'program–measure linkages' highlighted in Table 8.3.

Dealing with 'policy–program linkages' involves the need to set program objectives and mechanisms that fit overall, broader policy goals and instrument logics. In the US CRP case set out above, for example, the policy–program linkages establish the program's objective of preventing soil erosion, improving water quality and preserving wildlife habitat as needed to uphold the overall policy aim of conserving ecosystem services through the use

Table 8.3   Program-level 'needs' for effective design

Policy Content				
High-level Abstraction (Policy Level)		Operationalization (Program Level)		On-the-Ground Specification (Measures Level)
POLICY GOALS *What ideas govern policy development?*	Policy–Program Linkages (I)	OBJECTIVES *What does the policy formally aim to address?*	Program–Measure Linkages (II)	SETTINGS *What are the specific aims of policy?*
INSTRUMENT LOGIC *What norms guide implementation preferences?*		MECHANISMS *What are the specific types of policy instruments or elements and how are they utilized?*		CALIBRATIONS *What are the specific ways for using the instruments?*

of financial incentives encouraging conservation. 'Program–measure linkages', on the other hand, establish the need to fit program mechanisms to specific on-the-ground policy measures. In the CRP case, this involves ensuring that payment agreements between the government and landowners reflect the priorities given to the conservation of different land types and monitoring how successfully these agreements are implemented in practice through the fair assessment of yearly payments and contract lengths.

Principles and practices of program design related to these two general areas of concern are set out in more detail below.

PRINCIPLES FOR DESIGNING PROGRAMS: POLICY–PROGRAM LINKAGES (I)

Studies over the past two decades exploring 'smart regulation' in environment policy and in land use management and planning (Gunningham et al., 1998; Rayner & Howlett, 2009; Ben-Zadok, 2013) have helped underline the significance and effectiveness of program designs that are compatible with existing governance conditions. Borne out of such studies, several principles have emerged to illustrate and instruct how effective policy–program linkages can be designed.

Goodness of Fit: Matching Governance Mode and Policy Capacities

One such principle is the notion of 'goodness of fit'. That is, as set out above, effective program designs need to reflect and respond to the specific contextual features of the particular policy sector(s) that they involve. How well a program is able to align itself with context-dependent policy realities determines its 'goodness of fit' within an existing governance structure and the various other policy regime elements at the international, national, sub-national and local levels of governments within which it is embedded (Howlett, 2011). Different governance styles and preferences at each level require and influence specific types of state and social actor capacities and capabilities, and these

limitations and strengths inform judgments about the feasibility of program-level options and alternative arrangements of objectives and mechanisms.

Questions of goodness of fit thus connect program design with a central concern of policy analysis, the *ex ante* feasibility of instruments and their settings in a larger political context (Meltsner, 1972; Majone, 1989). While it is true that program designs that might appear infeasible in terms of goodness of fit can subsequently turn out to be effective (or else policy innovation would be an even more rare occurrence than it actually is), judgments about feasibility are an established feature of policy advice. For example, studies of governance modes and 'policy styles', mostly stemming from Europe and North America throughout the 1980s–1990s (see for example, Richardson et al., 1982; Freeman, 1985; Kiss & Neij, 2011), described several common patterns of governance arrangements that need to be reflected in policy program designs in order for these designs to be considered feasible and thus improve their chances of adoption. While many possible permutations and combinations of such governance arrangements exist, recent policy and administrative studies have focused on four basic types or 'governance modes' found in many jurisdictions (Table 8.4).

Each mode of governance listed in Table 8.4 broadly displays a different focus, form of control, aim and preferred service delivery mechanism and procedural policy orientation, which affect and inform design practices and contents. Government actions through legal and network governance, for example, can change many aspects of policy behaviour but do so indirectly through the alteration of the relationships existing between different kinds of social actors. This is unlike corporate and market governance, each of which involves a preference for more overt state direction. The program elements of policy designs must incorporate knowledge about these particular characteristics and preferences if they are to be considered feasible or appropriate.

Claims and counterclaims about feasibility have a strongly rhetorical character, and disputes over these claims are a characteristic feature of many design processes. A key insight of contemporary research into the design of programs that successfully address policy aims is that designing involves thinking about and coordinating aspects of policy arrangements which occur over multiple levels of policy activity (Howlett & Del Rio, 2015). Activities at all of these levels, along with the details of implementation, must be coordinated and integrated if optimal results are to be attained.

Not surprisingly, while the level of concern for matching governance context and program elements is always high, it becomes even more complex and charged when the policy or program area extends beyond the jurisdiction of a single level of government to incorporate multi-level governance (MLG) considerations.

This is well illustrated by the case of environmental policy-making and program design across the nations of the European Union (EU) after 1960. In many of these countries, a previous penchant for the use of regulatory and command-and-control instruments aligned with more active forms of state governance have given way to more market-based tools as governance arrangements in general at the EU level have shifted in this direction (Jordan et al., 2005). However, within this general tendency a great variety now exists today in the EU with respect to the type of market or economic-based tools preferred in each individual member country (Jordan et al., 2005). For example, evaluations of environmental policy program arrangements have highlighted that moves towards planning and 'steering' in such contexts involve indirect coordination of key actors by governments,

Table 8.4 Different governance modes and policy capacity considerations

Mode of Governance	Central Focus of Governance Activity	Form of State Control of Governance Relationships	Overall Governance Aim	Prime Service Delivery Mechanism	Key Procedural Tool for Policy Implementation
Legal Governance	Legality – promotion of law and order in social relationships	Legislation, law and rules	Legitimacy – voluntary compliance	Rights – property, civil, human	Courts and litigation
Corporate Governance	Management – of major organized social actors	Plans	Controlled and balanced rates of socio-economic development	Targets – operational objectives	Specialized and privileged advisory committees
Market Governance	Competition – promotion of small and medium-sized enterprises	Contracts and regulations	Resource/cost efficiency and control	Prices – controlling for externalities, supply and demand	Regulatory boards, tribunals and commissions
Network Governance	Promotion of inter-actor organizational activity	Collaboration	Co-optation of dissent and self-organization of social actors	Networks of governmental and non-governmental organizations	Subsidies and expenditures on network brokerage activities

Source: Developed from Considine and Lewis (2003).

requiring 'a high level of government policy capacity to identify and utilize specific policy tools capable of successfully moving policy targets in a required direction' (Howlett & Rayner, 2013, p. 175; Arts et al., 2006). Nordic nations have corporatist governance conditions and fiscal and other capacities that allow a better fit with 'second-generation' market-based instruments (MBIs) such as emissions trading, whereas less wealthy European countries 'are still employing first-generation MBIs such as simple effluent taxes and user charges' (Jordan et al., 2005, p. 486). 'Goodness of fit', including judgments about the feasibility of program elements within overall governance arrangements, thus play a key role in designing effective programs both in state-level jurisdictions and at the EU level. Better program designs ensure that a program's content and prerequisite conditions match governance contexts.

Degrees of Freedom: The Impact of Layering

However, as the EU case also shows, even with a high capacity for action, not all possible program options may be available to designers. A second design consideration is thus one directed at the relative ease or difficulty with which policy designers can change the status quo given the embeddedness or tractability of past policy and program choices. Conceptually, if unlimited 'degrees of freedom' are available to policy-makers then any combination of policy tools and program objectives might be possible in any circumstance (Howlett & Rayner, 2013). However, practical experience with large-scale institutional changes has suggested that the existence of this amount of 'elbow-room' for mixing or designing policy elements is uncommon and many program design contexts are, rather, heavily 'path dependent' (Pierson, 2000; David, 2005).

Other than in completely new areas of policy, or in cases where political punctuations have led to a full rethink or overhaul of old policy, most policy and program designers typically work with restricted 'degrees of freedom' or within constraints created by layers of already existing policy mixes that cannot be easily altered (Thelen, 2003; Van der Heijden, 2011). As corroborated by evidence from studies of the evolution of sectors such as welfare policy and natural resources over long periods of time, many existing policy combinations developed incrementally through a gradual historical process of the piecemeal addition or alteration of elements of policies and programs (Lindblom, 1959; Howlett & Migone, 2011). Such mixes may be 'disorganized' (Bode, 2006) and cry out for rationalization but are nevertheless difficult to change (Hacker, 2005).

Many sustainability strategies, for example, have suffered from incremental adjustment through layering, or the process whereby new elements are simply added to an existing regime without abandoning previous ones (Thelen, 2003; Van der Heijden, 2011). Many efforts at the integration of various resource management regimes, for instance, have failed when powerful interests are able to keep favourable goals, instruments and settings, such as unsustainable fishing or timber cutting quotas that support an industry, and limit the impact of new policy initiatives (Rayner & Howlett, 2009).

The temporality of these policy development processes places constraints on contemporary designers and, like the governance contexts cited above, is a key issue in program design. The deadweight of the past necessitates the examination of the pre-existing historical organization of policy components in order to gauge the feasibility of moving specific design options forward (Christensen et al., 2002). Effective program design must

take these temporal contexts into account in proposing new remedies; this often leads to an emphasis on 'patching' policy rather than 're-packaging' it altogether (Howlett & Rayner, 2013; Howlett et al., 2014).

PRINCIPLES FOR DESIGNING PROGRAMS: PROGRAM–MEASURE LINKAGES (II)

Effective program design must address both the policy–program level and the program–measure level of interactions among program elements (Table 8.3). On-the-ground program elements often involve aspects of what Elinor Ostrom (2011; Ostrom & Basurto, 2011) designated as the 'rules' of institutional design and analysis. These include designing program components that cover aspects such as:

- Boundary rules: who is covered by this program?
- Is participation and coverage automatic or is a new participant allowed to join by paying some kind of entry charge, fee or tax?
- Position rules: how does an actor move from being a target of a program's activities to one with a specialized task in program implementation, such as the chair of a management committee?
- Scope rules: what activities are covered by the program?
- Choice rules: what choices do various types of actors have in relation to the actions they can or are expected to take in the program?
- Aggregation rules: what understandings exist concerning how actors can affect or alter the rules affecting their actions? Do certain actions require prior permission from, or agreement of, others?
- Information rules: what information about the program or relevant to it is held secret, and what information is made public?
- Payoff rules: how large are the sanctions that can be imposed for breaking any of the rules identified above? How is conformance to rules monitored? Who is responsible for sanctioning non-conformers? How reliably are sanctions imposed? Are any positive rewards offered? (See Ostrom, 2011, pp. 20–1.)

Achieving effectiveness with respect to deploying program mechanisms at this level relies upon ensuring that mechanisms, calibrations, objectives and settings display 'coherence', 'consistency' and 'congruence' with each other (Howlett & Rayner, 2007). Within this general rubric, however, several specific principles of effective program design also exist. Two of these – maximizing complementary effects and the need to balance the attainment of equity, efficiency, economy and environmental concerns – are discussed below.

Maximizing Complementary Effects

Policy design studies have pointed out that many existing policy mixes are not comprised exclusively of tools or elements that complement and enhance each other (Grabosky, 1995). Grabosky (1995) and other scholars investigating policy combinations throughout

the latter half of the 1990s, for example, noted that policy packages and programs combining command-and-control regulation with modes of voluntary compliance can be internally contradictory and should be avoided in effective design.

One key principle at this level of design analysis and practice, therefore, is to maximize complementary relationships while mitigating incompatibility between policy elements in the formulation of policy portfolios (Gunningham et al., 1998). Evidence from the drive for renewable energy and energy efficiency as a consequence of climate change and energy security concerns in the last two decades, for example, has shown that internally conflicting elements of policy mixes often elicit contradictory responses from those who are the targets of a program (Boonekamp, 2006; Del Rio et al., 2011). This finding is common in many sectors where using both regulation and voluntary compliance measures in the same program at the same time undermined the realization of an intended program objective. While some programs can contain duplicative elements and the redundancy or resiliency inherent in them may actually help to ensure that the stated policy goals are achieved, in most cases this is not the result (Grabosky, 1995; Braathen, 2005, 2007). Rather, as Hou and Brewer (2010) have noted, programs composed of tools that complement or supplement each other – for example, the use of command-and-control regulation to prevent undesirable behaviour while simultaneously providing financial incentives to encourage desirable behaviour – will normally achieve more effective policy responses.

Balancing Equity, Efficiency, Economy and Environmental Concerns

A second concern centers less on policy tools and their calibrations and more on program 'settings' or the operationalization of specific program objectives. Numerous case studies of programs, including social policy experience in Australia and the United States, have suggested that attaining four general principles in program design at the program–measure interface is critical for program effectiveness – namely, achieving 'equity, efficiency, economy and environment' in program design (Stanton & Herscovitch, 2013).

In the context of programs such as those involving progressive taxation, social security benefits, health insurance and retirement incomes, equity is understood to have both a proportional (based on different resource endowments of policy targets) and equal (equal treatment of targets with similar endowments) component, and a superior program design takes both aspects into account. For example, proposals for national disability insurance programs in Australia involved a setting of 'proportionality' or unequal treatment of policy targets based on different degrees of disabilities. However, it also included an equity component in fostering equal treatment of the same disability across the nation (Stanton & Herscovitch, 2013). Addressing 'efficiency' as part of a policy program also often takes the shape of meeting larger economic goals while also attaining environmental goals such as sustained growth. Returning to the CRP example cited above, one of the main critiques of the scheme was that once the contracts were signed, farmers were locked in to them without any scope for regular inflation adjustments. Designing inflation adjustment mechanisms into the CRP could address this shortcoming in the program's efficiency and enhance its environmental effectiveness.

The principle of 'economy' relates to matching the cost of program initiatives and elements to budgetary and personnel resources and balancing these two aspects. But as Justen et al. (2014a) and Justen et al. (2014b) note, participation is a key component in

policy and program design, not just for legitimation purposes, but because it can bring new information to the design process which formal analyses can miss. Meeting the need for participatory and inclusive collaboration in policy program design can be attained by managing the coexistence of demand-side and supply-side policies and their constituent policy actors (Daugbjerg & Sønderskov, 2012). This is especially the case in programs pertaining to the deployment of new technologies such as renewable energy and energy efficiency which require the coordinated participation of both producers and consumers. Along the same vein, encouraging collaborative ties between different types of policy actors can make programs more effective by strengthening knowledge linkages and fostering innovation.

Several design techniques exist which can help promote effective program designs to meet these goals and their combination. As Sovacool (2012) noted in his assessment of ten renewable energy programs in developing countries, mutually supportive combinations can be encouraged while others are discouraged or changed on a pilot or experimental basis. That is, 'effective programs typically begin with pilot programs or with feasibility assessments before installing systems and scaling up to larger production or distribution volumes' (p. 9159). Such pilot programs need to be carefully protected from political pressure to evaluate them prematurely, causing adoption of program elements that subsequently prove problematic or rejection of those with latent value, a problem recognized early on in the literature on program evaluation (Weiss, 1970).

SUMMARY: TOWARDS EFFECTIVE PROGRAM DESIGN

Policy design is an activity conducted by a range of policy actors at different levels of policy-making in the hope of improving policy-making and policy outcomes through the accurate anticipation of the consequences of government actions and the articulation of specific courses of action to be followed to achieve different levels of policy goals and ambitions. In a program design perspective this is to be accomplished by improving assessments of both the theoretical effectiveness as well as the feasibility of policy alternatives at both the policy–program level and the program–measure level.

That is, each 'policy' or program is a complex 'regime' or arrangement of abstract, operationalized and on-the-ground ends and means-related content which exists in a specific governance setting and which changes over time. In contrast to an older tradition of program design and evaluation which tended to treat programs in isolation from the larger policy context, the discussion here has located program design firmly within the context of designing complete policy packages. In this perspective, the central concerns in the design of programs are related to answering questions about how mixes of policy components are constructed, which methods yield superior results in developing these mixes, and what is the likely result of their (re)design.

Contemporary design discussions at the policy–program level center on the articulation of principles such as 'goodness of fit' in policy formulation, governance and steering, and the 'degrees of freedom' which formulators or designers have in carrying out their work both over space and over time. These complement and advance notions at the program–measures level, promoting parsimony in program designs and the need for coherence, consistency and congruence in design relationships and components. At this level, efforts

Table 8.5   Balancing policy elements for effective program design

Policy Content High-level Abstraction (Policy Level)	Policy–Program Linkages	Operationalization (Program Level)	Program–Measure Linkages	On-the-Ground Specification (Measures Level)
GOALS *What ideas govern policy development?* LOGIC *What norms guide implementation preferences?*	*Goodness of fit* with ● Governance styles (legal, corporate, market or network) ● Existing state capacities and social capabilities ● Multi-level policy-making *Degrees of freedom* ● Working within constraints and existing layers of policy component mixes ● Accounting for temporality and historical arrangements of policies	OBJECTIVES *What does the policy formally aim to address?* MECHANISMS *What are the specific types of policy instruments or elements and how are they utilized?*	*Maximizing complementary effects* ● Assessing interactions between multiple policy components ● Reducing internally conflicting elements and attaining coherence, consistency and congruence between program elements and measures *Balancing the '4 Es' in policy settings* ● Equity (both proportionality and equality) ● Efficiency (alignment with economic goals such as employment and growth) ● Economy (managing budgetary costs) ● Environmental concerns (maintaining sustainability of programs)	SETTINGS *What are the specific aims of policy?* CALIBRATIONS *What are the specific ways for using the instrument?*

have been made to articulate various methods through which designs can meet concerns for equity, efficiency, economy and environmental quality while maximizing complementary interactive effects and minimizing negative or counterproductive ones.

Table 8.5 summarizes the design principles set out above which can help ensure better policy and program integration through improved linkages between different policy components at the two levels cited above.

What this chapter has highlighted is that by understanding the nesting of effective program design at the two levels of policy–program and program–measure, program designers can improve or optimize their designs in given historical and institutional contexts. Understanding governance arrangements and how past policy processes have created and modified the elements of existing programs is critical to evaluating the chances of success of policy rules and on-the-ground measures in accomplishing higher-level goals and objectives. This realization is helping contemporary program designers in their efforts to deal with policy problems that increasingly demand complex governmental responses.

NOTE

1. This chapter was originally published as Michael Howlett, Ishani Mukherjee and Jeremy Rayner (2014), 'The elements of effective program design: a two-level analysis', *Politics and Governance*, **2**(2), 1–12. This article is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

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PART III

FORMAL AND INFORMAL ANALYTICAL TECHNIQUES IN POLICY FORMULATION

9. Formal policy appraisal techniques and policy formulation[1]

Camilla Adelle and Sabine Weiland

INTRODUCTION

Policy assessment seeks to inform decision-makers by predicting and evaluating the potential impacts of policy options. It is the latest extension of the assessment concept, namely, from the project and/or programme level to the policy level. This extension has in part been driven by criticisms that project and programme level appraisals, that is, environmental impact assessment (EIA) and strategic environmental assessment (SEA), do not start early enough in the policy cycle (Boothroyd, 1995; Owens et al., 2004). Policy assessment essentially uses the same standard steps as EIA and SEA (i.e. identifying the problem, defining objectives, identifying policy options, analysing impacts etc.) which are often applied within central government departments or ministries to national-level policies. The scope of policy assessment is usually (and certainly for the purposes of this chapter) confined to *ex ante* assessment, which informs decision-making before policies are agreed and implemented and therefore excludes *ex post* evaluation of policies (Palumbo, 1987).

Policy assessment is most commonly practised as one of several types of 'impact assessment' that have emerged in the last two decades, such as regulatory impact assessment (RIA) (e.g. Radaelli, 2004a), sustainability impact assessment (SIA) (e.g. Kirkpatrick & Lee, 2001) and simply impact assessment (IA) (e.g. European Commission, 2002). Each has a slightly different focus in terms of objectives and relevant impacts but the terms are often used interchangeably, creating some confusion. These broad types of policy assessment in turn harness a range of policy assessment tools and methods such as cost-benefit analysis (CBA), scenario analysis and computer modelling (de Ridder et al., 2007; Nilsson et al., 2008).

The concept of policy assessment (i.e. the idea in its textbook form) has spread rapidly around the world in the last two decades (Radaelli, 2004a). In the early 1990s only a few Organisation for Economic Co-operation and Development (OECD) countries were using policy assessment, but by 2008 all 31 OECD countries had either adopted or were in the process of adopting it (OECD, 2009). Policy assessment systems (i.e. the institutionalization of the concept through standard operating procedures such as guidelines, training, quality control etc.) in their various guises (e.g. RIA, SIA and IA) can now be found in almost every European Union (EU) member state and in countries as far apart as the United States, Australia and South Africa (Allio, 2008). However, this broad diffusion of the concept of policy assessment masks a great deal of diversity in how it is practised (Radaelli & Meuwese, 2010). Policy assessment systems in different countries vary enormously in their design, implementation and even their purpose (Jacob et al., 2008; Adelle, 2011). For example, environmental objectives may or may not be a significant feature of a policy assessment system, if present at all. Furthermore, in some countries policy assessment exists only on paper and is rarely and/or poorly implemented in practice.

This chapter sets out the state of the art in policy assessment by reflecting on both the concept and practices of policy assessment. In addition, this chapter is also about research on the concepts and practices of assessment. The rest of the chapter unfolds as follows. First, the origins and drivers behind the concept of assessment are examined. Then, the question of how, and why, the practice of policy assessment spread around the world under its various guises is discussed. This is followed by an exploration of the several 'types' of research on policy assessment that have been differentiated. These have varying perspectives, objectives and methodologies, as well as underlying assumptions about the concept of policy assessment. This leads us to reflect, in the next section, on the state of play and possible future directions for these three dimensions of policy assessment (i.e. concept, practices and research). The chapter ends with some conclusions on how to better integrate these three dimensions of policy assessment in order to expedite and strengthen future developments in the field.

POLICY ASSESSMENT: THE ORIGINS OF THE CONCEPT

The concept of policy assessment – in its textbook form – is based on the belief that more 'rational' policy-making can be achieved by applying analytical tools. Therefore, assessment exists to bring scientific evidence to the attention of decision-makers and counter interest-based policy-making, to integrate cross-cutting issues, and to increase cooperation between different departments which are involved in the assessment of a policy. This conception of policy assessment is widespread and particularly evident in the guidance documents prepared for government officials who carry out policy assessment.

The origins of this concept of policy assessment can be traced back to the United States, which is often reported as one of the first adopters of policy assessment, and is still sometimes held up as being at the forefront of international practice (e.g. Renda, 2006, p. 19). Various points of genesis of policy assessment in the United States have been divined but a complete policy assessment system is commonly cited to have first been instituted through an Executive Order (Number 12291) in 1981 (Renda, 2006; Radaelli, 2010). Economic priorities figured strongly in these early experiences of policy assessment in the United States, with the reduction of regulatory burden and cost savings seen as the main drivers (Renda, 2006). References to the earlier-adopted US concept of policy assessment are apparent in the European literature (e.g. Renda, 2006; Cecot et al., 2007; Radaelli, 2009; European Court of Auditors, 2010). However, the concept of policy assessment in Europe and other OECD countries is commonly reported to be driven by three specific global trends.

First, as noted above, the need for a more strategic approach arose from the apparent inability of existing assessment schemes to deal with 'big issues' at the project level (Boothroyd, 1995, p. 93). The focus of assessment, therefore, moved upstream to plans and programmes and then to policies. However, it is the second trend, the rise of 'better regulation' up the political agenda, that has arguably been the main driving force behind the diffusion of policy assessment in the OECD (Jacobs, 2006; Allio, 2007; Radaelli, 2007). Better regulation refers to the notion of attempting to rationalize and simplify both existing and new legislation (Allio, 2007, p. 73). Promoted by the OECD as well as certain influential high-level reports, such as the Mandelkern report published in 2001

(Mandelkern Group on Better Regulation, 2001), policy assessment – in the form of RIA or IA – rapidly became the main instrument for implementing this better regulation agenda (Allio, 2007; Radaelli, 2007). Third, the concept of policy assessment also arose out of calls for the integration of environmental objectives or, more broadly, sustainability objectives into policy-making (Hertin et al., 2008). The concept of policy assessment has the potential to contribute to solving complex cross-cutting issues such as sustainable development because it requires officials to take these into consideration at the initial stages of decision-making across the whole of government (Jacob et al., 2008; Russel & Jordan, 2009). In practice, however, such a holistic concept is difficult to achieve.

THE PRACTICE OF POLICY ASSESSMENT: THE DIFFUSION OF A CONCEPT

The diffusion of the concept of policy assessment into worldwide practice can usefully be split into two elements: first, the adoption of policy assessment systems (i.e. the institutionalization of the concept through standard operating procedures such as guidelines, training, quality control etc.) and, second, the implementation of those policy assessment systems. It is important to note that the presence of a policy assessment system does not necessarily lead to its functional implementation, and in some countries there is a large gap between the policy assessment system and assessment practice.

The Adoption of Policy Assessment Systems

Despite the early origins of policy assessment in countries such as the United States, the practice spread only slowly at first, with Finland and Canada adopting some form of policy assessment system in the 1970s and Australia, the UK, the Netherlands and Germany following in the mid 1980s (OECD, 2009). There was, however, a rapid rise in adoption of policy assessment systems in OECD and European countries in the second half of the 1990s, following an OECD recommendation on regulatory reform (OECD, 1995). Another surge in the diffusion of policy assessment systems occurred following the launch of the European Commission's Impact Assessment system in 2003 (European Commission, 2002). As in the United States, many of the early policy assessment systems initially focused on the assessment of the economic and administrative impacts of regulation but were later revised to include consideration of a wider range of impacts. For example, the UK introduced a Compliance Cost Assessment procedure in 1986 to reduce compliance costs for business but from 1996 this procedure was gradually transformed into a broader 'regulatory assessment', emerging in 1998 as a full RIA procedure (EVIA, 2008). The focus of policy assessment in the United States, however, remains relatively narrow and dominated by the use of CBA (Renda, 2006, p. 22).

Today the adoption of a policy assessment system is widespread in OECD and other industrialized countries. A 2010 survey of 17 European countries found that all 17 had adopted some form of policy assessment system, although some countries were still in the early stages of implementation (Adelle, 2011). The most recent countries to adopt policy assessment have tended to be newer EU member states in Central and Eastern Europe (CEE) such as Estonia and Lithuania (de Francesco, 2010), although there

are some late-adopter exceptions such as Ireland, which introduced its system in 2005 (Adelle, 2011). There are also early CEE adopters like Hungary, which established a policy assessment system in 1994 (Staronova, 2010). Recent adoption appears to be one of the predictors of weak implementation of policy assessment systems, with many of the more sophisticated and robust systems being found in the older EU member states. This reflects the dynamic nature of most assessment systems, which are repeatedly revised and refined over time.

Policy assessment systems have now also spread beyond the OECD and the EU (de Francesco, 2010). In particular, interest in policy assessment in middle- and lower-income countries is increasing, albeit from a relatively low base (Kirkpatrick & Parker, 2004; Kirkpatrick et al., 2004). Furthermore, the World Bank has recently promoted SEA in policy and sector reform as a means for developing countries to deliver policies which not only foster employment but also environmentally sustainable growth (World Bank, 2011).

This widespread diffusion of the concept and institutional framework for policy assessment has not, however, led to its standardization. Radaelli (2005, p. 924) argues that policy assessment (in the form of RIA) is a concept which has 'travelled lightly' around the world producing 'diffusion without convergence'. Essentially, most policy assessment systems draw on certain common elements: they are often (but not always) supported by a legislative act making their application mandatory and specifying which policy proposals are subject to assessment; they consist of similar procedural steps set out in official 'guidance' documents; they are usually undertaken by the official responsible for policy development; they generally include some form of stakeholder consultation; and they usually result in a written document or report. However, these common features disguise the many different ways in which policy assessment is implemented in practice.

The Implementation of Policy Assessment Systems

A number of comparative surveys of European policy assessment systems have revealed the detail of this vast diversity in practice. They have uncovered different institutional frameworks, purposes of assessment, use of policy assessment tools, coverage of impacts, quality of reports and levels of transparency, as well as the differing role of assessment within the policy process (e.g. Jacob et al., 2008; Adelle, 2011). Through these surveys it becomes apparent that while the concept and practice of policy assessment has been fully institutionalized in some jurisdictions (sometimes in less than a decade, e.g. in the European Commission) it still suffers from significant implementation problems in others (Jacob et al., 2008; Radaelli & de Francesco, 2010; Adelle, 2011). In some cases, policy assessment only exists on paper as a 'tick-box' exercise (Radaelli, 2005).

Consequently, Adelle (2011) concludes that there is no 'one way' of conducting policy assessment, or even one 'best way'. Having said that, the European Commission's Impact Assessment system is often held up as a front runner in policy assessment in Europe. It is considered a very integrated assessment system as it includes social, economic and environmental impacts (both inside and outside the EU) of the EU's most significant policies (European Commission, 2009; European Court of Auditors, 2010). However, the EU's integrated model is only followed in a few European countries (Jacob et al., 2008). Adelle (2011) found that environmental objectives are considered

to be an integral part of relatively few European assessment systems. In fact, some authors report that two main types of policy assessment are emerging in practice across OECD and European countries, namely, on the one hand, a 'stripped down' or 'soft' version of CBA in which countries try to identify interactive effects of policies (e.g. in the European Commission, Australia, Ireland and New Zealand), and, on the other hand, a more fragmented and narrow form of policy assessment focusing on assessment of administrative burdens on business (e.g. the Netherlands, Germany) (Jacobs, 2006; Jacob et al., 2008). The strong emphasis on economic competitiveness which became associated with the EU's better regulation agenda in the mid 2000s (Allio, 2007), compounded by the recent economic crisis, only serves to intensify this latter trend (Jacobs, 2006; Radaelli, 2009).

Radaelli (2005) attempted to further explore the diversity in the practice of policy assessment by examining how institutional and political context matters in the process of its diffusion. He argues that policy assessment has become a 'typical solution in search of its problem' (Radaelli, 2004a, p. 734) and that the problem depends on the political context of each jurisdiction. For example, in Italy, Germany and Sweden policy assessment is perceived as a possible solution to the need for simplification of policy, and in the Netherlands it is associated with the issue of competitiveness, while the European Commission's policy assessment is a response to a legitimacy deficit (Radaelli, 2005). Furthermore, experience of the practice of policy assessment is beginning to indicate even more diversity to be found beneath the surface: the purpose of policy assessments differ not only between jurisdictions but also within a particular policy assessment system depending on the policy sector, prevailing political priorities and even the individual policy process and stakeholders in question. The argument that political context matters when determining the purpose of policy assessment has strong parallels in the SEA literature. For example, Bina (2007) argues that it would help frame the purpose, role and approach to SEA in a way that is relevant and consistent with the particular context if policy-makers asked themselves what they want to achieve from each particular application of SEA.

To summarize, policy assessment has become a tool for many purposes: different practices, objectives and perspectives have been rolled up with the concept of policy assessment. The next section introduces even more diversity in another (third) dimension of policy assessment, namely, the research on the concept and practices.

RESEARCH ON POLICY ASSESSMENT: REFLECTIONS ON PRACTICE

The diffusion of the concept and practice of policy assessment has been accompanied by a vast amount of academic, as well as more applied, research. This section of the chapter sets out some of this research. To do so we draw on the typology devised by Turnpenny et al. (2009) that divides the literature into several different 'types'. The first two types share a mainly positivist perspective – that is, they base the concept of policy-making on a rational model of linear knowledge transfer between experts and policy-makers. The third and fourth types, in contrast, are largely based on an alternative, post-positivist perspective that stresses the relativity of knowledge and the political nature of policy formation, thereby focusing on

other factors such as interests and power positions, rather than evidence, to explain political decisions. We shall subsequently elaborate on each of the four research types.

The Design of Assessment

One type of policy assessment literature concerns the design of the policy assessment systems themselves. There is a vast amount of often very technical literature on tools and methods for policy assessment (for a useful meta-review, see de Ridder et al., 2007). It includes literature aiming to improve the overall design of assessment systems (e.g. Lee, 2006; OECD, 2008) as well as detailed and practical guidance for practitioners carrying out assessments (e.g. European Commission, 2009). A substantial volume of literature focuses on specific tools that can be used in assessment, such as CBA (e.g. Pearce, 1998), the standard cost model (e.g. Torriti, 2007) or multi-criteria analysis (e.g. Hajkowicz & Collins, 2006). Computer-based modelling tools developed for particular policy sectors or problems have also been the subject of significant research, for example in the field of agriculture and land use (e.g. Alkan Olsson et al., 2009) and transport (Elst et al., 2005). In addition, several large, EU-funded projects (such as IQ-Tools, Sustainability A-Test, MATISSE, EVIA and LIAISE) have developed online inventories of policy assessment tools.

The Performance of Assessment

Another type of literature evaluates policy assessment designs in practice. While at first this research measured quality by comparing the contents of the assessment reports with the official guidance (e.g. Harrington et al., 2000), later research emphasized aspects of the process of assessment by including in-depth case studies and interviews (e.g. The Evaluation Partnership, 2007). This type of research generated a fairly consistent, if disappointing, picture of the empirical 'reality' of policy assessment. Many of the criticisms chimed with those previously made by researchers evaluating the (mainly procedural) effectiveness of SEA (e.g. Bina, 2007; Wallington et al., 2007). These are that: there is a gap between the stated aims of assessment and its everyday implementation (Wilkinson et al., 2004); the economic aspects of policy all too easily outweigh other (e.g. social and environmental) aspects (Wilkinson et al., 2004; Renda, 2006; Russel & Jordan, 2007; Jacob et al., 2008); the scope of the assessments is confined by a narrow understanding of problems and available policy options (Wilkinson et al., 2004; Lee & Kirkpatrick, 2006; Nielsen et al., 2006; Renda, 2006); and assessments tend to be performed at a relatively late stage in the policy process (i.e. too late to have significant influence over the final decisions) (Wilkinson et al., 2004; The Evaluation Partnership, 2007; Russel & Turnpenny, 2008).

   Many of these researchers focused on the sustainability aspects of policy assessment and were strongly critical of their lack of integration into the assessments (Wilkinson et al., 2004; Adelle et al., 2006; Jacob et al., 2008). Russel and Turnpenny described the growing concern that 'rather than supporting sustainable development, more integrated approaches to assessment could actually undermine the concept as environmental and social issues may get squeezed out by more high profile and politically salient economic concerns' (2009, p. 341). This fear was compounded as the competitiveness agenda in

Europe strengthened in the years after the introduction of the EU's policy assessment system. This was believed to have the effect of narrowing down the most salient issues, principally in favour of economic ones (Jacobs, 2006).

Most studies offered recommendations to policy-makers on how to improve the performance of their policy assessment systems. Many of these recommendations focused on micro-level constraints, such as calls for more resources and training for practitioners (Wilkinson et al., 2004; Jacobs, 2006; The Evaluation Partnership, 2007). Another common recommendation was to start the policy appraisal earlier in the policy process, when more options were likely to be open (Wilkinson et al., 2004; Renda, 2006; The Evaluation Partnership, 2007). The need to address higher-level constraints was also emphasized, for example through calls for stronger political leadership (Russel & Jordan, 2007; Jacob et al., 2008); the creation of central oversight and quality control mechanisms (Wilkinson et al., 2004; The Evaluation Partnership, 2007); and a greater understanding, acceptance and use of assessment tools (de Ridder et al., 2007; Jacob et al., 2008; Nilsson et al., 2008; Turnpenny et al., 2008). These higher-level recommendations proved much harder to implement, which may in part help explain why the quality of some policy assessment systems was initially reported to decrease rather than increase over time (Renda, 2006). However, this trend appears to have reversed in more recent EU-commissioned studies (see, for example, The Evaluation Partnership, 2007 and the European Court of Auditors, 2010).

Learning and Evidence Utilization

While the first two types of literature on policy assessment largely assume a positivist stance, researchers of the third type of literature take a post-positivist perspective. This involves a far more chaotic model of policy-making in which many actors pursue multiple goals (e.g. Owens et al., 2004; Hertin et al., 2009a, 2009b; Turnpenny et al., 2009). Researchers taking this perspective offer a very different conception of policy assessment to the traditional textbook concept described above. From their perspective, it is unrealistic to assume that decision-making is rational and that assessment knowledge will necessarily transfer in a linear way directly and smoothly into policy-making. The role of policy assessment, therefore, is not to identify the overall 'best' policy option, but to inform debate and critical reflection in the messy reality of policy-making (Adelle et al., 2012).

This third body of literature, therefore, looks for evidence not of the quality of policy assessment, but of whether that assessment has led to policy change via processes of learning (e.g. Nilsson, 2006; Hertin et al., 2009a; Nykvist & Nilsson, 2009; Radaelli, 2009). A distinction is often made between single-loop (or instrumental) learning, where 'knowledge directly informs concrete decisions by providing specific information on the design of policies' (Hertin et al., 2009a, p. 1187), and double-loop (or conceptual) learning, where 'knowledge "enlightens" policy makers by slowly feeding new information, ideas and perspectives into the policy system' (Hertin et al., 2009a, p. 1187). The former is more aligned with the positivist conception of policy assessment whereas the latter is more closely related to the post-positivist conceptions. Indeed, much of this literature explicitly endorses more deliberative approaches that encourage conceptual learning (e.g. Owens et al., 2004). Only a few authors have pursued this type of research (e.g. Nilsson, 2006; Hertin et al., 2009a; Nykvist & Nilsson, 2009; Radaelli, 2009). They reveal that, while

there are some specific examples of policy-making following the linear rational model, this only occurs in certain, rare, situations. More usually, a presumed simplistic relationship between evidence and policy-making leads to a lack of attention to process issues and encourages a bias towards CBA where trade-offs are not sufficiently acknowledged (Hertin et al., 2009b). Therefore, the overall evidence pointing towards instrumental learning through policy assessment is scarce (Radaelli, 2009). In addition, much of this research finds that while policy assessment could, in principle, provide a new venue for double-loop learning, this seldom happens in practice. Hertin et al. (2009a, p. 1196), for example, found assessment only really informed 'policy designs at the margins' and that the (little) double-loop learning that does take place occurs despite, rather than because of, the design of assessment procedures.

These studies offer few practical recommendations to practitioners on how to improve policy assessment. In contrast, they challenge the whole notion that there are 'simple solutions' to the problem that the 'quality' and effectiveness of assessment should improve.

The Politics of Assessment

The fourth type of literature investigates the politics of assessment. It also takes a post-positivist stance and asks, if policy assessment is not always, or even usually, informing decision-making, what are the other possible underlying motivations for conducting appraisals? Research in this area looks for (and finds) evidence of alternative motivations, such as greater political control over departments, public management reform and symbolic action/emulation (e.g. Radaelli, 2010). Studies of the diffusion of policy assessment practices across and within jurisdictions have also revealed how different actors shape assessment structures and practices to suit their preferences (Radaelli, 2004a, 2004b, 2005). Research from another angle has focused on the intended and unintended consequences of policy assessment. It treats assessment as 'a good lens on the changing nature of the regulatory state in the EU and its member states' (Radaelli & Meuwese, 2009, p. 651).

POLICY ASSESSMENT: RETROSPECT AND PROSPECT

In this section we reflect on the state of play for each of our three dimensions of policy assessment (i.e. concept, practices and research) as well as their likely future directions.

The Concept of Policy Assessment

Despite developments in the underlying theoretical assumptions of policy-making, traditional linear rational models of policy-making continue to provide the foundation for most methodological developments in policy assessment (Hertin et al., 2009a, 2009b; Bond & Morrison-Saunders, 2011). The literature, based on an alternative conceptualization of policy assessment, has, however, uncovered many practical difficulties of trying to improve policy assessment practices while they remain heavily informed by these positivist perspectives. It is poignant perhaps to reflect that while policy assessment, in part, was an attempt to address some of the earlier failings of SEA and EIA, the question of theoretical

underpinnings of assessment has not yet been adequately tackled – a point well noted in the SEA literature (e.g. Bina, 2007; Wallington et al., 2007; Elling, 2009). A reticence to move away from the traditional positivist conception of policy assessment by policy-makers as well as many researchers – for example towards more tailor-made and deliberative approaches (Owens et al., 2004) – has led to many of the same issues of effectiveness resurfacing.

The Practice of Policy Assessment

The global diffusion of policy assessment witnessed in the last few decades looks set to continue, especially in developing countries, championed in part by institutions such as the World Bank. For those countries where policy assessment has already become institutionalized (albeit to various extents), mostly OECD and other industrialized countries, refinements to assessment systems look likely to continue. Several practitioner-led studies have recently indicated that they feel that the quality of assessments in their jurisdiction has improved (e.g. The Evaluation Partnership, 2007; National Audit Office, 2009; European Court of Auditors, 2010). In addition, there are a number of developments in, arguably, the more cutting-edge assessment systems that are attracting interest among practitioners and it is to these that we now turn.

How to further embed policy assessment into the decision-making process is beginning to attract attention in the European Commission, the UK and in some other jurisdictions. First, even where assessment is well institutionalized in early policy formulation phases (usually undertaken by bureaucrats), it is often less well used in the later stages of decision-making (usually undertaken by politicians) (e.g. see European Court of Auditors, 2010, paragraph 29). Added to this, significant amendments to policy proposals made during this legislative procedure may not be followed up by additional analysis (European Court of Auditors, 2010, paragraph 29). Second, there are calls for (*ex ante*) policy assessment to be better linked to (*ex post*) evaluation of policies (e.g. Jacob et al., 2008; European Court of Auditors, 2010, paragraph 86; HM Government, 2011) as well as earlier policy planning activities (European Court of Auditors, 2010, paragraph 84). By further integrating policy assessment into all stages of the policy-making process, it has been suggested that it may evolve into more complex activities of regulatory management (Radaelli & de Francesco, 2010). A related issue is how far to involve stakeholders in the policy assessment process. Currently, stakeholders are usually at the periphery of policy assessment, only commenting on the policy proposal itself (Radaelli, 2004b). However, there is an opportunity, not yet often realized, to adopt a more 'pluralistic' approach to policy assessment and invite stakeholders to comment on a draft of the policy assessment report, and thereby participate in the assessment process in a more deliberate way (Radaelli, 2004b). Finally, within the EU there is also the need to vertically link assessment systems between different levels of governance (i.e. between the EU and its member states). The European Commission's Impact Assessment system provides an important platform to strengthen these vertical links (Jacob et al., 2008). However, at present only a handful of countries, including the UK, make attempts to do this (HM Government, 2011).

Research on Policy Assessment

As policy assessment practices proliferate the associated academic literature continues to evolve. In a well-cited paper, Susan Owens et al. (2004, p. 1954) predicted that practices of, and research on, assessment would continue to evolve in the future along parallel tracks in a mutually reinforcing manner. However, Adelle et al. (2012) found that the practices and research are informing each other in more complex and subtle ways than predicted. For example, while research on assessment designs and tools continues, policy-makers tend to use relatively few of the complex tools (such as complex computer models) that researchers prefer (de Ridder et al., 2007; Jacob et al., 2008; Nilsson et al., 2008). This makes it questionable if innovation in either practice or research in this area is tightly linked. In contrast, while practitioners continue to commission yet more research on quality (or otherwise) of policy assessment systems in their jurisdictions (see above), academic interest in this type of literature has stalled; less and less is being produced as academics seem to have realized that a cul-de-sac has been entered (Adelle et al., 2012). Although there is still relatively little literature on learning arising from policy assessment (especially on the role of stakeholder evidence), and even less empirical work, academic interest in this type of research is growing relative to research on the performance of policy assessment. However, the interaction between this research and practice appears weak. This is in part because of the lack of a ready audience for this kind of work (which does not seek to inform assessment practices in as straightforward a manner as research on the performance of assessment but rather questions the very purpose of assessment). This is a point taken further in the literature on the politics of assessment, which still represents a relatively new and under-explored area of research. It is yet unclear how, or even if, research will interact with practice.

CONCLUSIONS

Policy assessment has become a widely used policy-making procedure but with enormous variation in how it is practised, the way it is researched and the perspectives which underpin it. It is difficult, therefore, to assign 'strengths and weaknesses' or 'opportunities and threats' to policy assessment: rather, each of the four different types of literature on policy assessment outlined in this chapter presents a different perspective. For example, (positivist) researchers interested in the design of assessment might cite the lack of appropriate policy assessment tools (or their poor use) as a weakness of policy assessment. On the other hand, (post-positivist) researchers interested in learning and evidence utilization might see tool (non-)use as somewhat irrelevant due to the lack of direct transfer of information into policy-making. Instead these researchers could point to the lack of deliberation in policy assessment as the main limitation to its effectiveness. Similarly, researchers interested in performance assessment would argue that the gap between stated aims and everyday implementation is a weakness. In contrast, researchers investigating the politics of assessment might find this to be an indication that the underlying motivation of policy assessment, in this instance, is symbolic action or emulation rather than evidence-based policy-making. The issue of threats and opportunities for policy assessment can also be seen through different perspectives. For example, positivist researchers might feel that

international institutions such as the World Bank and the OECD present an opportunity to promote the global diffusion of policy assessment. However, post-positivist researchers may see the widespread practice of policy assessment, as it currently stands, as neither a good nor bad thing: for some it is the fundamental redesign of policy assessment in future that will be important, while for others policy assessment presents a policy instrument to be studied whatever the extent of its practice or its quality.

Partly as a consequence of this diversity in perspectives on policy assessment, it is perhaps not surprising that expectations about what policy assessment can deliver have also proliferated. At times these expectations can appear unrealistic: policy assessment on its own cannot, for example, halt regulatory growth or fundamentally alter power balances between policy sectors or actors. Nor, for that matter, can it necessarily correct the shortcomings of assessment at the project and programme level or single-handedly deliver more coordinated and sustainable policies. Researchers from the third type of literature on learning and evidence utilization would argue that this is especially the case when the concept and practices (and in many cases the research) of policy assessment continue to be based on a linear rational model of policy-making.

What then does this mean for the future of policy assessment as a whole (i.e. combining concept, practices and research)? Efforts which seek to mediate between the positivist and the post-positivist approaches could play a significant role here. Policy assessment researchers are well placed to shape new developments. Susan Owens et al. (2004) caution us not to create a false dichotomy between these two theoretical approaches which they saw as complementary. Adelle et al. (2012) argue that a future research agenda could – and indeed should – encourage interaction between research on policy assessment that straddles linear rational and post-positivist approaches. This agenda would create connections between research for policy-making (e.g. research on methods and tools for assessment and on the performance of assessment) and research on policy-making (e.g. on learning and politics of assessment). Such interaction could help realign the practices of and research on policy assessment into a state of contested and possibly more mutually beneficial interaction. In these circumstances it is feasible that policy assessment could at last become an arena through which some of the on-going issues of effectiveness of assessment, whether at the project, programme or policy level, could finally be worked through.

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10. Operationalizing information: measures and indicators in policy formulation
Markku Lehtonen

INTRODUCTION

Indicators have become an increasingly common policy tool in practically all sectors of policymaking, produced and used at all levels of governance by a multitude of policy actors, and for a wide range of purposes. Indicators are commonly perceived as a tool designed to foster accountability and evidence-based policy, yet their role in policy formulation has thus far received little attention by the research community. This chapter argues that indicators can have powerful and partly unforeseen consequences for policy formulation, and explores the various direct and indirect roles of indicators as tools of policy formulation.

Policy formulation can be defined as 'a process of identifying and addressing possible solutions to policy problems or . . . exploring the various options or alternatives available for addressing a problem' (Turnpenny et al., 2015, p. 6). It is the stage of the policy process following agenda-setting, during which options for resolving 'issues and problems recognized at the agenda-setting stage are identified, refined, appraised and formalized'. Agenda-setting is essentially concerned with identifying where to go, while the policy formulation stage is about determining how to get there (Turnpenny et al., 2015, p. 4). In Dewey's pragmatist 'social inquiry' (1927, 1938), policy formulation closely corresponds to the second and third stages of the inquiry – the second consisting of the 'determination of a problem-solution', designed to transform an 'indeterminate situation into a problem having definite constituents', and the third stage entailing the construction of scenarios, solutions and their possible consequences (Boulanger, 2014, p. 19).

The range of indicators currently in use is vast. Examples include the well-established economic indicators, with gross domestic product (GDP) the most emblematic but also the most widely criticized example; social indicators designed to address questions of social equity and quality of life (Cobb & Rixford, 1998; Hezri, 2006); science, technology and innovation (STI) indicators that allow cross-country comparisons (Godin, 2003); and performance management indicators that are usually applied at the level of the organization, as an essential element of New Public Management and evidence-based policy. Sectoral performance indicator systems, league tables and rankings are omnipresent at various governance levels (Hood, 2007; Jackson, 2011; Le Galès, 2011). Environmental policy is among the sectors that have been the most eager to develop sectoral indicators, since the 1970s, first as part of 'state of the environment' reporting, and subsequently in support of various types of assessment, multilateral environmental agreements (MEAs) and the development of environmental policy instruments (Hezri, 2006; OECD, 1991; Pintér et al., 2005). Sustainable development indicators (SDIs), in turn, illustrate the multifarious nature of indicators: one can hardly find a significant organization, let alone

a governance level, that has not developed its own sustainable development indicators. Furthermore, SDIs appear in a highly varying range of forms, from long lists of indicators deemed to represent the relevant dimensions of sustainability (the approach adopted by the United Nations), to aggregate composite indicators of sustainability, societal progress and well-being that seek to capture these multiple dimensions in a single, easily comprehensible figure (e.g. Seaford, 2013; Sébastien & Bauler, 2013; Stiglitz et al., 2010).

Indicators typically feature characteristics of a policy formulation tool, which Jenkins-Smith (1990, p. 19) defines as 'a technique, scheme, device or operation (including – but not limited to – those developed in the fields of economics, mathematics, statistics, computing, operations research and systems dynamics), which can be used to collect, condense and make sense of different kinds of policy relevant knowledge to perform some or all of the various inter-linked tasks of policy formulation'.

Policy tools and instruments[1] are often categorized into two groups: traditional 'substantive' instruments, designed to directly affect the delivery of goods and services in society, and procedural policy tools and instruments, which seek to affect outcomes indirectly by manipulating policy processes and thereby obtaining societal approval of government policies (Howlett, 2000). As tools designed to provide information and generate learning, indicators resemble typical procedural instruments such as education, training, provision of information and public hearings (Howlett, 2000). However, a third category, introduced by Turnpenny et al. (2015, pp. 3–4), best corresponds to the nature of indicators in policy processes. This third category includes scenario work and various types of assessment methods (cost-benefit analysis, multi-criteria analysis and so on), variously defined as 'analytical tools' (Radin, 2013, p. viii), 'policy-analytic methods' (Dunn, 2004, p. 6), decision support tools and 'analycentric' tools (Schick, 1977).

While indicators are typically conceived of as tools in the service of rational, evidence-based policymaking, in line with the ideal of a rational-linear policy process and the 'policy stream' literature in policy sciences (see Veselý, Chapter 5 in this volume), indicators are characterized by ambiguity, and dualisms or tensions inherent in their production and use. Some have described this duality in terms of 'boundary work' (Jasanoff, 1987), seeing indicators as 'boundary objects' (e.g. Bauler, 2012; Sébastien et al., 2014; Turnhout, 2009), potentially capable of mediating between different 'social worlds' (Star, 2010), and thereby helping build bridges across conventional categories and dichotomies. Indicators shape the prevailing problem framings but are at the same time also shaped by those very framings (Boulanger, 2014, p. 26).[2] Indicators can be influential precisely because they combine quantitative, 'hard' facts with 'soft' speculation – indeed, indicators usually draw upon quantitative statistical information, yet they are always proxies designed to indicate an underlying phenomenon that cannot be directly described in quantitative terms (Turnhout, 2009). Indicators can support policy efforts to centralize just as well as to decentralize governance: they can serve top-down control by centralized power (for example, through government performance targets and indicators), but can also work on a local level to emancipate and empower local actors (for example, indicators of environmental quality, sustainable development or well-being). Furthermore, even those advocating the use of indicators as part of a rational-linear policy ideal agree that indicators are also designed to serve political objectives – and in doing so, they generate unintended and unanticipated consequences – as demonstrated by the emerging literature on the role of indicators in policymaking (e.g. Bell & Morse, 2011; Desrosières, 2000; Gudmundsson,

2003; Hezri & Dovers, 2006; Hood, 2007; Lehtonen, 2013; Lehtonen et al., 2016; Lyytimäki et al., 2013; Mascarenhas et al., 2014; Rydin, 2007; Turnhout, 2009). As an object of research, indicators therefore lend themselves to the kind of attempts at bridging the 'policy stream' and 'political stream' of political science literature advocated by Veselý (Chapter 5 in this volume). Finally, while indicators are usually designed by experts – and hence carry the risk of reinforcing technocratic control and expert-led policymaking – they can help strengthen citizen participation and enhance openness to various normative and cognitive viewpoints in policymaking, in line with the ideas of 'opening up' of the policymaking and appraisal processes (Stirling, 2008).

Amongst the multiple intended functions of indicators in policymaking, this chapter concentrates on their role in policy formulation in various policy venues. Particular attention will be given to the distinction between the use and influence of indicators, and the various unintended and systemic consequences from the production and use of indicators. In particular, the major virtue and objective of indicators – simplification – is itself a source of 'complication' to the extent that it leads to various unintended, systemic consequences that extend beyond the direct policy formulation tasks. Indicators can generate such broader systemic impacts by contributing to control, learning and various 'symbolic' functions. Research and practical work on indicators has thus far focused on the instrumental functions of indicators as malleable governance tools, and has given insufficient attention to the political and institutional context within which indicators are produced and used – the setting in which indicators 'operate', often taking up a 'life of their own'. This chapter seeks to fill this gap, by examining the role of indicators as 'tools' in policy formulation and highlighting the ways in which the broader context shapes the operation of indicators.

The chapter is structured as follows. The next two sections provide a definition and a basic typology of indicators. The next section explores the intended functions of indicators, focusing on their role at the various stages of policy formulation. The following section examines the notion of 'use' – typically put forward as a major, yet repeatedly unachieved, objective of indicator work – and makes the case for an alternative approach that concentrates instead on the consequences and influence of indicators. Building on the previous sections, the chapter continues by examining the various unintended, unanticipated and systemic 'spillover' effects that indicators and the processes of their elaboration frequently generate. The final section concludes by highlighting open questions and potential future research topics.

WHAT ARE INDICATORS?

Indicators constitute a heterogeneous policy tool, with a range of purposes, functions, disciplinary backgrounds, application areas and levels, and theoretical and normative underpinnings. Gallopin (1996, p. 108) defines indicators as 'variables that summarize or otherwise simplify relevant information, make visible or perceptible phenomena of interest, and quantify, measure, and communicate relevant information', while Jackson (2011, p. 15) describes a performance indicator as an 'unbiased estimate of true performance which cannot be measured directly'. This definition captures two essential features of indicators: that of 'indication' – the idea that an entity that is not directly measurable

can nevertheless be 'assessed using a limited set of measurable parameters' (Turnhout, 2009, p. 403), and that of 'signalling' – the idea that an indicator needs to be interpreted and given meaning (Jackson, 2011, p. 15). In his semiotic approach, Boulanger (2014, p. 26) views indicators as signs possessing a dual nature: they are shaped by dominant framings of social problems, and at the same time shape those very framings. In the words of Davis and Kingsbury (2011, p. 9), 'Indicators inescapably frame problems – they make statements about the existence and nature of a problem, as well as about how to measure the problem or aspects of its solution.'

Gudmundsson (2003, p. 4) argues that the existence of an underlying conceptual framework distinguishes indicators from data or statistics. Such a framework determines the criteria and logic for the choice of specific indicators, anchors indicator systems in theory and makes them comparable with each other and communicable to the targeted audience (Gudmundsson, 2003; Pintér et al., 2005). Some argue that indicators must necessarily be associated with specific targets: when values – numerical or not – are associated with the variables constituting an indicator, judgements and assessments can be made on the basis of the significance of the observed indicator values (Franceschini et al., 2008). From this perspective, the level of CO_2 (carbon dioxide) emissions would only be an indicator if an emissions reduction target was imposed upon or adopted by the entity (for example, country, sector or organization) in question. According to Godin (2003), a defining feature of indicators is their ability to provide early warning through the observation of trends, whereas Jackson (2011) underlines that indicators are unavoidably imprecise. Some maintain that indicators should be underpinned by a causal model (Cobb & Rixford, 1998; Godin, 2003), while others distinguish indicators from evaluations by arguing that only evaluations necessarily have to establish cause-effect relationships (Gudmundsson, 2003).

These varying views highlight the contested yet flexible nature of indicators. It is indeed this flexibility and an absence of full consensus around indicators that reinforces their potential to operate as 'boundary objects'. A broad range of actors with varying interests and perceptions can find a given indicator useful for their own work, but also for communicating with other groups, even if the parties disagree on the precise functions and meaning of the indicator in question. However, there appears to be broad consensus on at least one aspect of indicators: they are ultimately designed to be used.

TYPES OF INDICATORS

Three broad categories of indicators can be identified – descriptive, performance and composite indicators – each with its own preferred functions. Akin to 'pure' data, descriptive indicators are not designed for a specific use, and often eschew policy interpretations. Performance indicators (for example, environmental performance indicators of a country, key performance indicators of an enterprise) place the observations on a normative scale, and thereby allow judging progress towards a norm – the systems of government performance monitoring, with their sets of targets and indicators, are a case in point. These indicators are designed to steer performance through greater accountability, but can also serve other functions typically attributed to policy evaluation, in particular, learning, policy improvement and demonstration of policy improvement (e.g. Boswell et al., 2015). Composite indicators (for example, GDP, ecological footprint, human development index,

Table 10.1   Three types of indicators

Type of indicator	Presentation	Functions
Descriptive	Expressed as a number, grade, time series, ratio or dichotomy (Often) no policy interpretation	Provide basic data and information
Performance	Comparison to a standard, target value or benchmark	Monitor results and performance
Composite	Aggregate index condensing a number of individual variables	Provide a snapshot of situation of performance
	Often combines descriptive and performance indicators	Raise awareness, draw attention to a policy issue

Source: Adapted from Gudmundsson (2003).

or new indicators of happiness and well-being) draw attention to important policy issues, offer 'more rounded assessment of performance', and present the 'big picture' in a manner accessible to diverse audiences (Jacobs & Goddard, 2007). Composite indicators include rankings and league tables. These have become increasingly common in areas of public service such as education (for example, school and university rankings), where they can signal quality of service and inform choice (including choices on resource allocation), or can be used for performance benchmarking, accountability and the attribution of rewards (Jackson, 2011). Composite indicators of sustainable development seek to provide a shared conceptual framework that would provide a basis for interpretation, analysis and practice. Ideally, such a framework would operate as a kind of 'meta-theoretical language' enabling comparison between theories and engendering collective understanding of sustainability (Sonntag, 2010). But the strength of composites – their ability to simplify – is also a weakness, to the extent that composites cannot identify causal relationships and therefore do not on their own provide a sufficient knowledge base for specific policy decisions (Grupp & Schubert, 2010). Composites can influence policy indirectly, by informing the public and the political debate about specific social objectives and policy trade-offs, making explicit underlying assumptions, challenging dominant models of measurement and helping the public to hold politicians to account (Seaford, 2013). Table 10.1 summarizes the characteristics and expected functions of the three broad categories of indicators presented here.

Obviously, there is overlap between descriptive, performance and composite indicators; for instance, descriptive indicators typically constitute the essential building blocks of performance and composite indicators, and composite indicators are frequently used for performance measurement.

INTENDED FUNCTIONS OF INDICATORS

Indicators are expected to, and indeed do, serve a very broad range of potentially useful functions, such as communication and awareness-raising (Rosenström & Lyytimäki, 2006), monitoring and evaluation of performance, engaging stakeholders, supporting

policy evaluation, providing early warning, political advocacy, control and account-ability, transparency and improving the quality of decisions. Indicators can also guide policy analysis and formation, help improve government effectiveness, set targets and establish standards, promote the idea of integrated action and focus the policy discussion. Indicators would then serve as 'signals' that enable or prescribe an action or management function, and condense information, helping policymakers to decide whether or not to act (Gudmundsson, 2003). Whichever the primary objective, indicators are expected to simplify and facilitate communication by reducing ambiguity (Mascarenhas et al., 2014). A fundamental aim that characterizes a lot of current indicator work is that of enhancing the use of indicators, in order to render policymaking more rational and evidence-based.

Many of these expectations follow the logic of the 'policy stream' literature (Veselý, Chapter 5 in this volume), which focuses on the formulation of public policy problems so that they can be effectively addressed. Furthermore, indicator functions are commonly per-ceived against the ideal of the optimization of policy design and policy mixes (cf. Howlett and Rayner, Chapter 7 in this volume): indicators should help to optimize policy by improving the evidence base for policy formulation. However, such an approach raises the question of 'optimal from which perspective', against which policy objectives, and thereby evokes the issues of problem framing – notably the power and capacities of different actors to shape those framings – and of the various unintended and often unanticipated conse-quences of indicators. In their dual role – as objects shaped by the prevailing framings, and at the same time as objects that frame problems and solutions – indicators can therefore serve multiple functions, ranging between the two poles of empowerment and control. These crucial framing processes and effects, as well as the ever-present unintended and unanticipated impacts of indicators, are best analysed from the perspective of the 'political stream' literature of policy formulation (Veselý, Chapter 5 in this volume).

Indicators in the Various Tasks of Policy Formulation

Indicators have many functions that do not fit within the scope of policy formulation. For instance, one of the key rationales behind composite indicators is to influence the phases that precede policy formulation – notably agenda-setting and problem identification.[3] However, in the following, I shall concentrate on the contribution that indicators are expected to make at the subsequent policy phase, that is, policy formulation. Combining the typologies of policy formulation tasks suggested by Turnpenny et al. (2015) and Dunn (2004, pp. 6–7), this subsection explores the contributions that indicators can make to four such tasks: (1) problem structuring; (2) specification of objectives; (3) assessment of policy options; and (4) identification and design of policy options. Table 10.2 summarizes these policy formulation tasks and the associated potential contributions of indicators.

Problem structuring (problem characterization and problem evaluation)
In a broad sense, problem structuring tasks produce information about what problem to solve (Turnpenny et al., 2015). Essentially, they entail the conceptualization of the problem by policymakers (Wolman, 1981). In doing so, 'policymakers may select certain forms of evidence to support action on specific issues, or issues themselves may be productive of certain types of evidence' (Turnpenny et al., 2015, p. 8). More specifically, indicators can fulfil three information provision functions that Turnpenny

Table 10.2   The contribution of indicators to different policy formulation tasks

Policy formulation task	Roles of policy formulation tools	Contribution of indicators
Problem structuring • Conceptualization of the problem by policymakers	• Baseline information on policy problems • Evidence on problem causation and scale • Articulation of values through participation • Problem framing	• Baseline information (state of the environment indicators, sectoral indicators etc.) • Participatory elaboration of indicators • Indicators as input to participatory policymaking • Indicators as a tool for framing policy problems • Indicators defined according to dominant framings
Specification of objectives	• Scenario-building and visioning exercises • Visions on different objectives, futures and pathways	• Forward-looking indicators as feedstock to scenarios • Quantification and simplification • Translation of broad policy aims into specific goals • Indicators as 'vehicles' carrying specific visions and worldviews
Assessment of policy options • Comparison of potential impacts of different options • Assessment of past and future trends	• Formal assessment methods (cost-benefit analysis (CBA), cost-effectiveness analysis, multi-criteria analysis, risk assessment, time-series analyses, statistical methods, Delphi technique, economic forecasting, multi-agent simulation)	• Indicators as input to formal assessment methods
Identification and design of policy options • Policy recommendations	• Formal assessment methods (CBA, cost-effectiveness analysis, multi-criteria analysis, risk assessment, time-series analyses, statistical methods, Delphi technique, economic forecasting, multi-agent simulation)	• Indicators as input to formal assessment methods

et al. (2015) attribute to policy formulation tools at this step of policymaking. They can provide baseline information on policy problems (for example, state of the environment indicators or indicators of the energy, transport and agricultural sectors). They can provide evidence on problem causation and scale, although, as noted earlier, views differ on whether an indicator necessarily has to identify the underlying causal relationships (Cobb & Rixford, 1998; Godin, 2003; Gudmundsson, 2003) – for example, whether an indicator has to demonstrate the connection between a climate policy

measure and the actual greenhouse gas emissions. Finally, indicators can help to articulate values through participatory processes, either in participatory indicator elaboration or through the contribution that indicators can make to participatory processes of policy formulation.

Concerns about the increasing role of experts in defining indicators have spurred calls for, and concrete efforts at, more inclusive, multi-stakeholder processes of indicator elaboration. Participatory processes of indicator design have indeed been shown to be a key source of influence in their own right (e.g. Mickwitz & Melanen, 2009). That is, just as going through a process of policy evaluation sometimes generates greater impacts than the evaluation results themselves (e.g. Forss et al., 2002; Patton, 1998), the interaction, learning and dialogue during the process of indicator elaboration may be just as valuable than the final indicator(s). This can entail, for instance, the use of new information and communication technologies in order to not only facilitate participatory processes of indicator elaboration but also to foster more interactive uses of indicators (e.g. OECD Better Life Index).[4]

The potentially crucial role of indicators in characterizing the current situation highlights the importance of problem framing and reframing. Already the choice of the indicators for describing the current policy situation both reflects and shapes perceptions of which elements are deemed important in any given decision-making situation. Davis and Kingsbury note: 'Indicators inescapably frame problems – they make statements about the existence and nature of a problem, as well as about how to measure the problem or aspects of its solution' (2011, p. 9). In the words of Lakoff (2004, p. xv), frames 'shape the goals we seek, the plans we make, and what counts as a good or bad outcome of our actions . . . frames shape our social policies and the institutions we form to carry out policies . . . Reframing is social change.' The way that issues and problems are framed fundamentally affects the indicators we use for measuring those issues; at the same time, indicators can influence issue framing. The role of GDP as a quintessential indicator of progress – and indeed the dominant economic indicator in many sectors of policy – illustrates the role of framing. As economic efficiency is increasingly considered as the 'natural' and self-evident quality criterion of various activities in society, economic indicators increase in popularity. These economic indicators, in turn, carry with them a specific framing of societal problems that may be 'natural' and self-evident for economists, but potentially problematic from a broader societal perspective (e.g. Boulanger, 2014; Morse & Bell, 2011).

Specification of objectives

Framing provides a bridge from problem characterization to the subsequent tasks of specification of objectives, assessment of policy options and policy design. Forecasting tools produce information about the expected outcomes of policies, while recommending tools provide information about preferred policies (Dunn, 2004; Turnpenny et al., 2015).

In assisting problem conceptualization, indicators can operate as 'boundary objects' (e.g. Star, 2010; Turnhout, 2009), by virtue of being able to cater to both technocratic and deliberative ideals, combining 'hard facts' and modelling with collective reasoning and 'speculation'. As mentioned earlier, the power of indicators largely lies in the perception that they provide exact, rigorous, scientific and objective information, on the one hand, and policy-relevant, tailor-made and hence partly subjective evidence, on the other.

In general, tools designed to help specify objectives contribute to policy formulation by providing visions on different objectives, futures and pathways. Indicators can assist such processes by feeding into scenario-building and visioning exercises. This is the case especially with the 'forward-looking' indicators that are emerging as a complement to the traditional indicators, which look back at past performance. Potential indicator users often criticize indicators for their lack of timeliness (e.g. Rosenström & Lyytimäki, 2006) and inability to examine future trends (e.g. Lehtonen, 2012; Sébastien et al., 2014). For instance, the UK energy sector has recently sought to develop indicators for performance under different future scenarios. Implicitly, as argued by Hukkinen (2003), any single indicator is always based on, and only makes sense as part of, a specific scenario.

Indicators contribute to forecasting – a key element of problem conceptualization – by informing the development of formal or informal models (Seaford, 2013) and the construction of scenarios. In so doing, indicators exert a powerful framing effect. By quantifying and simplifying, indicators render problems more manageable. Government performance measurement schemes, with their clearly defined targets and indicators, widely in use especially in the UK, are a typical example of a tool that allows 'translating broad policy aims and objectives into specific and practically achievable goals' (Boswell et al., 2015, p. 227). Defining CO_2 reduction targets in quantitative units seems relatively unproblematic, but quantification – not to mention monetization – poses far greater challenges in many other policy areas or other topics, for instance when quantification is at odds with the policy culture that prevails in the policy area in question (Bevan & Hood, 2006; James, 2004; Pidd, 2005; Smith, 1990, 1995). Indicators can sometimes play a highly prominent role in visioning, as the examples from composite sustainable development and well-being indicators demonstrate. Such indicators are typically employed by various think tanks, non-governmental organizations (NGOs) and other policy actors to help disseminate and promote their preferred visions of the future, ideas of the good life and worldviews (Sébastien & Bauler, 2013; Sébastien et al., 2014).

Assessment of policy options
Assessing policy options entails the comparison of potential impacts of different options as well as the assessment of past and future trends (Turnpenny et al., 2015). Such comparisons can be based on historical data and experience concerning the impacts of a policy, or can have a more forward-looking character, as is the case with tools designed for comparing the predicted impacts of diverse policy options. Turnpenny et al. (2015) list a number of possible tools for options assessment, including cost-benefit and cost-effectiveness analysis, multi-criteria analysis, risk assessment, time-series analyses and statistical methods, informed judgements (for example, Delphi technique), economic forecasting and multi-agent simulation. While indicators do not suffice alone as options assessment tools, experts rely on them as auxiliary tools in practically all of these types of assessment.

Identification and design of policy options
The final policy formulation task, namely, the identification and design of policy options, is explicitly aimed at producing policy recommendations, based on an evaluation of the potential effectiveness of different instruments or policy mixes. The applicable tools and, consequently, the potential contribution of indicators to this task, are similar as for options assessment. Typically, indicators can indirectly assist policy formulation

by providing information to the more specific policy assessment and design tools that are used for comparing policy options. While indicators in the previous phase (policy assessment) helped to assess the impacts of different policy options, at this stage, indicators help in particular to define what is doable – what are the relevant and realistically viable policy options. Here, again, framing effects are crucial: indicators contribute to problem characterization through quantification, measurement, monetization and choice of relevant criteria for judging progress, and help determine the relevant policy options.

The indicators of sustainable development and well-being provide an illustration. By measuring progress in a given manner, through a given set of indicators or one single composite measure, these indicators carry with them not only specific ideas of desirable worldviews and policy objectives but they also shape perceptions of which policies offer feasible, relevant and appropriate means of promoting those aims and objectives. The selection of parameters that constitute an air pollution index, or the choice of biodiversity or climate change indicators, indirectly limits the range and viability of alternative policy responses. Climate policies – and their viability and effectiveness – may be shaped differently depending on whether total greenhouse gas emissions or only CO_2 emissions are chosen as the key indicator, and priorities in biodiversity protection will depend on whether policies are guided by a single-species indicator or an ecosystem-wide diversity index.

GREATER USE AS THE OVERARCHING OBJECTIVE OF INDICATOR WORK

The degree to which indicators are used for their intended purposes varies greatly across indicator types and policy areas. Typically, the well-established economic indicators (such as GDP, unemployment rate, level of government debt and budget deficits) and performance management indicators are intensively used and produce tangible impacts, while the use of sectoral, cross-sectoral and sustainability/well-being indicators is much less common, or seems to produce weaker effects. Government departments and agencies use performance indicators when making decisions about resource allocation, while public service managers use them to motivate employees to improve performance; to trigger corrective action; to compare, identify and encourage 'best practice'; to plan and to budget. Auditors and regulators use them to evaluate whether public sector organizations are providing value for money.

The 'alternative' composite indicators of progress, well-being and sustainable development are actively used by their producers and policy advocates in order to promote their preferred worldviews, but national and European Union-level administrations do not often use these indicators in their daily work and decision-making, partly because of their 'unofficial' status and concerns over credibility and technical robustness (e.g. Sébastien et al., 2014). However, some composite environmental and sustainability indicators, in particular that of ecological footprint, have found a certain resonance in the media and to a limited extent in public debate and among policymakers (e.g. Morse, 2011; Seaford, 2013; Sébastien et al., 2014). Finally, in many cases indicators are not used simply because potential users are not aware of their existence (e.g. Lehtonen, 2013).

Most of the research on indicators in general has focused on the search for the 'ideal' indicator, and on the technical determinants of an indicator's scientific quality (reliability,

validity, measurability, representativeness and so on). Even the emerging research on the actual role of indicators in policymaking has concentrated on use, and has largely overlooked the ultimate consequences of indicator production and use. In short, the focus has been on ensuring that indicators be used by the 'right' people, in the 'right' places and in the 'right' ways. This effort at enhancing use has been largely motivated by the widespread disappointment at the lack of use – or what is often qualified as 'misuse' – of indicators by their intended users, and has given rise to a plethora of guidelines and principles of 'good practice'. These guidelines have attributed the failure to use indicators to a number of reasons: poor connection between reporting schemes and policymaking; lack of trust in the indicators (institutional rules and regulations can prevent government actors from using 'unofficial' data sources, while external actors may mistrust government data); lack of resources or institutional capacity; and poor design of indicator systems (for instance, neglect of user concerns).

Consequently, guidelines seeking to enhance indicator use typically emphasize that indicators should be relevant for the user in question (that is, representative, simple and easy to interpret, reflect ongoing changes in society, able to clearly communicate success or failure and designed to match the 'statistics proficiency' of the user); of high scientific and technical quality (that is, ideally based on international standards and norms, and on a clear conceptual framework); measurable, timely; at an appropriate scale; context-specific and adaptable; linked with regular monitoring and evaluation exercises – including those oriented to the future (Lehtonen, 2012, 2013; Sébastien et al., 2014); based on clear identification of target groups and expected indicator functions; and produced with participation of potential users in the design of the indicators (Bell et al., 2011; Boulanger, 2014; ESAC, 2015; Hezri, 2006; Lehtonen et al., 2016; Pintér et al., 2005; Seaford, 2013).

Indicators should be salient, credible and legitimate to their expected users (Cash et al., 2002; Pérez-Soba & Maas, 2015). This is a challenge, given that user groups are diverse and heterogeneous, and the relationships and determinants of salience, credibility and legitimacy are complex, with trade-offs existing between the three criteria. For example, the frequent debates and disputes concerning the validity of rankings elaborated by international organizations illustrate how vague and fluid the concepts of 'official' and 'unofficial' sources of knowledge are. The European Statistical Advisory Committee (ESAC, 2015)[5] classifies indicator users according to their intensity of use (heavy, light and non-users), type of interest (general, specific or research interest) and whether users are 'institutional' or not (users internal or external to the European institutions). While useful as such, this typology obviously only represents a first step towards a more nuanced understanding of the diverse user needs and demands.

Beyond Use: Distinguishing the Use and Influence of Indicators

While taking into account user concerns is essential, it would be a mistake to equate greater indicator use with 'better policy' – that is, assume that greater use of indicators necessarily leads to improvement in policymaking. It is therefore useful to distinguish between the active use of indicators by various policy actors, on the one hand, and the influence and concrete consequences of indicator work (both development and use), on the other (e.g. Lehtonen, 2012; Lehtonen et al., 2016; Sébastien et al., 2014).[6] The influence of indicators can entail, for example, social learning, networking, and greater focus

and motivation among policy actors (Henry & Mark, 2003), though not all learning goes in the direction of the general interest. A typical example is what Hezri and Dovers (2006) call 'political learning', whereby policy actors learn more sophisticated ways of policy advocacy that can entail manipulation and go against the general interest. Frequently used indicators are not always highly influential, whereas indicators that are not actively used may generate significant indirect impacts (Lehtonen, 2013; Lyytimäki et al., 2013).[7] The logic here is akin to that of Henry and Mark (2003, p. 310) in their conception of the use and influence of evaluation: 'the very concept of use connotes intentionality and awareness', whereas the consequences of evaluations often occur regardless – and sometimes against – the intentions of their promoters. The same applies for indicators. Even when not used actively by any policy actor, indicators can influence policies and society through various indirect ways, mediated by complex pathways of processes and interim outcomes, and often with a considerable time lag. Moreover, the processes of elaborating indicators can shape the nature and degree of indicator use – for instance, actors may reject indicators if they consider that the processes of their elaboration have been illegitimate, non-inclusive or manipulative. The consequences of indicators, whether through their elaboration processes or the indicators themselves, can affect the targeted policy, but can also affect broader processes in society, such as administrative structures or the operation of democratic institutions. Influence can entail new or reconfirmed decisions, actions and shared understandings, enhanced networking, or changes in the legitimacy of a policy or a policy actor (Hezri & Dovers, 2006; Lehtonen, 2012; Zittoun, 2006).

Figure 10.1 illustrates the relations between use and influence of indicators. The pathways between the processes of indicator elaboration, indicators themselves, and their use and influence are complex and largely unpredictable. The figure therefore illustrates both the 'theoretically' assumed linear pathway from indicator elaboration through use to the final influence on the targeted policy, and the alternative pathways where indicators do not influence the targeted policy. For example, use may fail to lead to influence, or the influence may occur outside the targeted policy. It is clear that the processes of indicator use and influence can never be fully controlled by policymakers, experts, policy designers, and indicator producers and advocates.

If indicators are seldom used directly and rarely play an instrumental role in policy-making, are they necessarily powerless, or can they instead provoke potentially significant indirect, unintended and unanticipated consequences? This issue will be examined in the following section.

UNINTENDED, UNANTICIPATED AND SYSTEMIC 'SPILLOVER' EFFECTS OF INDICATORS

As the examples in the 'Intended functions of indicators' section of this chapter show, indicators can affect policy formulation in various unanticipated and unpredictable ways. However, the unintended and unexpected effects of indicators are not just related to policy formulation. Indicators may be used selectively, interpreted out of context, used as political ammunition rather than as rational input to policy, or simply ignored. Even when used as expected, indicators can have unforeseen and potentially undesirable impacts. Many of these consequences occur indirectly and affect the entire policy system, not just
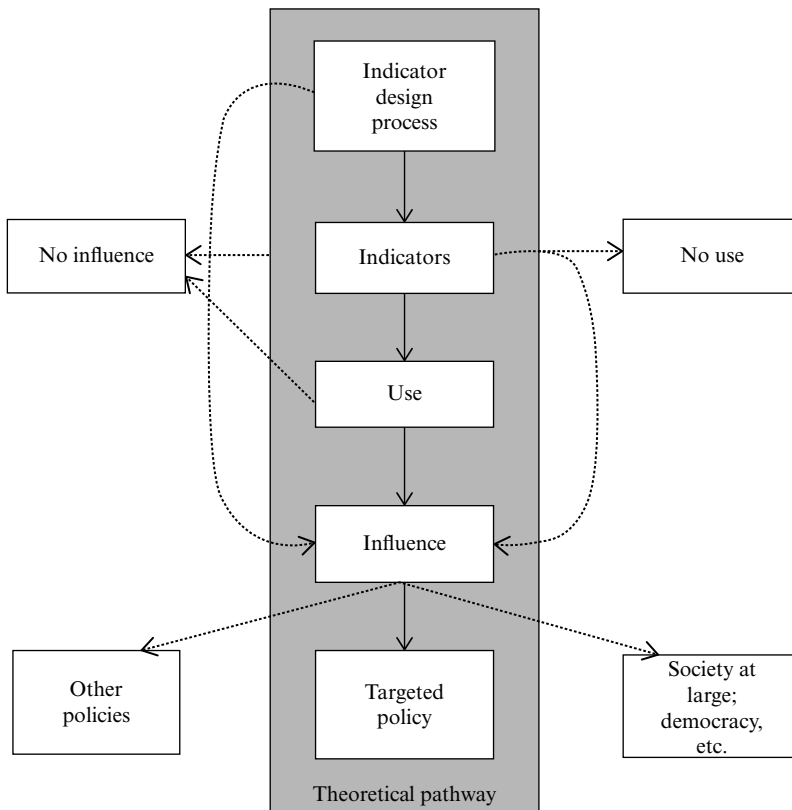
Figure 10.1   Relationships between the use and influence of indicators

the policy area in question. These broader, indirect and often systemic impacts may have profound implications for policy formulation.

In addition to the various framing functions mentioned earlier in this chapter (for example, disseminating and promoting worldviews and visions, or shaping the priorities between varying policy objectives and performance criteria), indicators exert their framing function through the specific ways in which they 'render problems manageable' – notably through quantification. Various strands of scholarly work have in recent years examined the 'dark sides' of indicators associated in particular with these framing effects. Most of these critics stress the tendency of indicators to depoliticize, that is, to reduce value conflicts and normative debates to presumably neutral and commonly agreed numbers perceived as incontestable facts (Jany-Catrice, 2011). A single figure, such as the rate of GDP growth, tends to hide the political nature of the many seemingly technical choices that are made in the process of producing the indicator. Often, officials at the statistics offices responsible for developing indicators engage in rather desperate attempts to 'clean up' indicators of politics (Ogien, 2013), and seek to reassure users that the indicators are

objective and value-free. These efforts include administrative and regulatory measures designed to guarantee the independence of statistics authorities from the government. Statisticians and governmental bodies are often still suspicious of composite indicators of sustainable development and well-being, in part because the indicators embody implicit worldviews. Research on such indicators has demonstrated, however, that the underlying conflicts between visions and worldviews tend to remain hidden, and reduced into debates on methodology (Sébastien & Bauler, 2013).

Critics have called into question the ability of indicators to foster socially progressive objectives – for example, scholars in urban and environmental studies have highlighted that indicator systems are inseparable from the broader dynamics and trends in policy-making (Hezri, 2006; Rydin, 2007; Rydin et al., 2003). Strands of scholarship focusing on the systemic[8] impacts of indicators draw upon the theoretical frameworks of governmentality (Rydin, 2007), government and management by numbers (Hood, 2007; Jackson, 2011; Lascoumes & Le Galès, 2005; Miller, 2001), indicators as boundary objects capable of connecting science, policy and society (Sébastien et al., 2014; Star, 2010), and informational governance (Bailey et al., 2016). These analysts have evoked, for instance, the ways in which indicators trigger behaviours that conform to the demands of market society. By shaping problem formulations and solutions, indicators operate through 'instrumentation'.[9] The emancipatory potential of simplification – which makes problems accessible to non-experts – is therefore coupled with an opposite tendency whereby indicators legitimize the position of experts as the only ones capable of truly 'mastering' the numbers (Zittoun, 2006). One way to reduce the inherent tensions between experts and 'lay' people is to integrate citizen-led and expert-led indicator development approaches (Turcu, 2013). However, as scholars in urban studies, sociology, geography and urban planning have demonstrated, even participatory indicator exercises cannot guarantee that indicators will foster socially desirable objectives. This is especially true because of the importance of indicator systems in the broader dynamics and trends in policymaking (Hezri, 2006; Rydin, 2007), for example, in evidence-based policy, arguably one of the most prominent current trends in public sector management and governance. More indicator use may sometimes produce socially regressive outcomes.

Indicators have 'performative'[10] functions (e.g. Turnhout, 2013; Waterton, 2002), of which sustainable development indicators (SDIs) provide but one example. These indicators can operate as classifications, 'reflecting back the conditions of their making in future manifestations in policy, or other forms of use' (Waterton, 2002, p. 195). Indicators thereby produce convergence – as knowledge and the world itself become more and more aligned; they transform politics, when knowledge becomes a site of political action; and they entail contingency – by producing a host of unpredictable and uncontrollable effects (Turnhout, 2009). More generally, Waterton (2002, p. 196) notes how 'classifications seem to take off in unanticipated directions, refusing to adhere to the stable groupings that we think they are'. Indicators function as 'message carriers', helping to shape existing frameworks of thought and mental models, and providing useful 'ammunition' to participants in political debates (Sébastien et al., 2014). The performative effects can also occur through the processes of indicator development (Mickwitz & Melanen, 2009; Wibeck et al., 2006).

The literature on performance measurement (Davies, 1999; Hood, 2007; Jackson, 2011; Le Galès, 2011; Perrin, 1998) has likewise called attention to the performative character of

information, and has questioned the optimistic assumption that performance indicators provide merely greater accountability, efficiency and citizen control over policymakers. Misunderstanding or ignorance of the relevant sources, definitions and methods certainly sometimes foster what indicator specialists like to label as 'misuse' and 'manipulation', but there are other reasons that performance indicators are not being used as expected, and produce unpredictable outcomes. Indicators can be complex, opaque and reductionist, hence hampering dialogue and deliberation, and legitimizing or reinforcing prevailing power structures. They can discourage responsibility, innovation, creativity and ambition, and instead lead to goal-shifting, 'gaming', dissimulation and distortion of data; suppress the plurality of values and points of view; and introduce a management rhetoric inappropriate in sectors with a 'non-managerial' tradition (Bevan & Hood, 2006; James, 2004; Pidd, 2005; Smith, 1990, 1995), such as the health sector. Indicators can 'crowd out' from the policy agenda crucial issues that cannot easily be captured in indicators, hence narrowing the range of legitimate concerns (Boswell et al., 2015). By focusing attention on a narrow range of issues, they can lock in policy actors to a particular course of action, even when circumstances or policy priorities change (Boswell et al., 2015). Performance indicators, especially when accompanied by harsh sanctions, can hence erode the trust upon which the survival of the system crucially depends (Hood, 2007; Ogien, 2013). From this perspective, the concepts of misuse and manipulation appear in quite a different light: depending on the general context in which indicators 'operate', their manipulative use can produce socially desirable outcomes, while 'correct' use of indicators may engender highly undesirable unanticipated effects.

The 'dark side' of indicators may have a silver lining, however. The perverse effects of indicators may in fact be less serious than critics fear, precisely because of what was stated above: indicators seldom produce their intended effects. This lack of direct, intended impact also goes for the less desirable effects (Boswell et al., 2015). While certainly frustrating to indicator constituencies, for the society as a whole the lack of use and impact may sometimes turn out to be a blessing.

DISCUSSION AND CONCLUSIONS

I finish by asking four questions that I hope will stimulate thinking and future research on the role of indicators in policy formulation. These questions stem from the key observation made above: that indicators repeatedly fail to meet their expectations in terms of their intended use, and generate most of their impacts inadvertently, through indirect and often unforeseen pathways. The questions concern the degree to which indicators indeed correspond to a linear-rational view of policymaking, and the extent to which indicator users and producers actually adhere to such a simplistic view of indicators as a policy formulation tool.

Is the Objective of 'Providing the Right Indicators to the Right Users' a Distraction?

The first question emerges from the common recommendation designed to enhance the uptake of indicators, namely, strengthening collaboration between indicator users and producers, and tailoring indicators according to the needs of the intended user groups.

In view of the various unanticipated impacts of indicators, the very objective of providing the 'right indicators to the right users' appears challenging if not illusory. As a policy tool, indicators lend themselves to multiple uses, and produce unexpected outcomes that frequently escape the control of their developers and advocates. And yet, just as policy evaluations cannot simply ignore their promise to provide direct, instrumental input to policymaking, tailoring indicators according to their expected users remains a laudable and necessary objective, if for no other reason than to secure political support and funding for indicator work. More importantly, there is a need to reconcile the legitimate efforts at enhancing direct, instrumental use of indicators by their intended users, on the one hand, and those aimed at dealing with – indeed making the best of – the unintended consequences, on the other. This would be in line with the objective of reconciling the 'political' and 'policy' streams of the literature (Veselý, Chapter 5 in this volume), and would help overcome the various dichotomies and tensions highlighted in the introductory part of this chapter. The objective of 'right indicators to the right users' emphasizes the disciplining functions of indicators, while highlighting the indirect and unanticipated consequences calls attention to the symbolic and political functions of indicators.

Are Indicators Necessarily Underpinned by a Linear-rational View of the Policy Process?

The intended functions of indicators are typically described in terms of a relatively rationalistic view of policymaking that underpins the 'policy' stream literature of policy formulation, with its practical orientation of assisting the formulation of public issues as concrete problems so as to facilitate the search for solutions. Nevertheless, policymakers in particular may evoke what could be defined as 'political' objectives of indicator work, and are probably more aware of the shortcomings of the rational-linear policy model than the most vehement academic critics suggest. As an example, Boswell et al. (2015, p. 228) mention the dual function that the UK government attributes to performance measurement: the 'disciplining' or controlling function, whereby targets and indicators provide incentives for actors to improve their performance and ensure 'value for money', and the more symbolic and political role, whereby indicators demonstrate progress and improvement and signal commitment to a range of political or organizational goals.

Are Users and Producers of Indicators Separate Groups?

To better understand the role of indicators as policy formulation tools, we need to look closely at the emergence and operation of the varied range of groups and alliances of actors that advocate the use of their favourite indicators. Actors within these collectives – referred to as instrument constituencies (Voß & Simons, 2014), epistemic communities (Haas, 1992; Zito, Chapter 18 in this volume) or advocacy coalitions (Sabatier, 1988) – are often among the most frustrated and disappointed at the apparent lack of use or what they often describe as 'misuse' of indicators (Shulock, 1999). Statisticians at national statistics offices and international organizations are often central in such constituencies of like-minded experts and policy actors; more recently, actors outside the government, such as think tanks, NGOs and grassroots community groups, have also become active, especially for community-level and composite sustainability indicators and alternative indicators of progress (e.g. Sébastien & Bauler, 2013; Sébastien et al., 2014). These groups

of actors tend to be sector-specific, are often highly international in nature, and typically promote the institutionalization of indicator systems and the development of an 'indicator culture' within their own sector or organization.

Analysis of the operation of such groupings could draw on literatures on 'knowledge brokers' mediating between knowledge producers and knowledge users (Meyer, 2010; Bandola-Gill & Lyall, Chapter 15 in this volume);[11] boundary objects (Bauler, 2012; Lehtonen et al., 2016; Star, 2010) or, more generally, 'boundary work' (Jasanoff, 1987); and 'policy entrepreneurs' (Kingdon, 2010; Gunn, Chapter 16 in this volume) that use indicators to disseminate their normative ideas and preferred policy options.

Are Indicators Only Feedback and Consolidation Tools, or Also Tools for Stirring Controversy?

Turnpenny et al. (2015), referring to Thomas (2001), point at yet another function of policy formulation tools, namely, that of consensus-building or 'consolidation'. Such processes entail the search for agreement 'between the various policy formulators and their client groupings' (Turnpenny, 2015, p. 9). These processes can occur at any stage of policy formulation, and they typically 'draw on feedback or consolidation tools for communicating findings back to policy actors', including stakeholder meetings, the elicitation of public perceptions and/or expert opinions (Turnpenny, 2015, p. 9). Indicators are often expected to play precisely this kind of communication role, with the underlying objective of building consensus by communicating findings to a specific actor group, to a range of policy actors or to the society at large. Composite indicators of sustainability or well-being are typically aimed at a wide range of actors, whereas performance measurement indicators or sectoral environmental indicators, for instance, are more fine-tuned to specific groups of specialized actors.

However, there is a permanent tension between the two contrasting objectives of consensus-building, on the one hand, and elucidating or even stirring controversy, on the other – in the words of Stirling (2008), 'closing down' and 'opening up'. The very concept of 'consolidation tool' postulates consensus and mutual agreement as unquestionably desirable objectives. Indeed, consensus on the underlying values, visions, worldviews and concepts is often seen as a precondition for the design of useful indicators, while the use of indicators is also expected to facilitate consensus-building. Nevertheless, in some situations it might be more desirable to stir controversy – in particular when policy dynamics excessively drive towards 'closing down' and dominant frameworks remain unquestioned. Furthermore, when knowledge is uncertain, and the policy situation is characterized by a diverse range of worldviews, it may be undesirable – and even futile – to reduce uncertainty and diversity in the hope of reaching consensus. In such circumstances, indicators can fulfil a crucial function of 'disturbing', 'destabilizing', and 'opening up' (e.g. Rafols et al., 2012), by calling into question received wisdom and conventional ways of thinking. If boundary objects are powerful thanks to their ability to facilitate collaboration amongst groups and individuals even in the absence of consensus, the challenge for indicator work would be to contribute to 'honest brokering' (Pielke, 2007). Reducing ambiguity and promoting consensus certainly has its place, yet a largely neglected virtue of indicator work is its ability to highlight, clarify and explicate disagreements, alternative perspectives and uncertainties.

NOTES

1. The terms 'instrument' and 'tool' are used interchangeably here.
2. Boulanger (2014, p. 26) writes about indicators: 'Like every sign, their interpretation depends upon the frames of the interpreters, and these can vary according to the social and cultural context in general and the position each interpreter occupies in it. On the other hand, as shown in Boulanger (2007), building indicators contributes significantly to the framing of social problems.'
3. This function is also the rationale for the elaboration of sets of 'headline' indicators, designed to capture the most vital elements of a system through a limited number of key indicators (for example, the European Union Lisbon indicators or headline indicators for the UK energy sector; see, for example, Lehtonen, 2013).
4. http://www.oecdbetterlifeindex.org/
5. While these recommendations refer to statistics rather than indicators, they are representative of a general ethos among the communities of experts also in the area of indicators. Furthermore, national statistics offices are typically among the main actors developing indicators and promoting their use.
6. 'Use' can be defined as the handling (for example, receiving, processing, communicating and reporting) of indicators in a variety of policy venues, whereas 'influence' denotes the consequences of dialogue and argumentation generated by indicators or indicator sets – or from the processes of designing and applying indicators (Mickwitz & Melanen, 2009) – for various elements of the policy chain (Lehtonen et al., 2016).
7. The UK Energy Sector Indicators provide an example: many stakeholders interviewed for a study on these indicators (Lehtonen, 2013; Sébastien et al., 2014) considered the energy poverty headline indicator as highly deficient, but were quick to note that the inclusion of the fuel poverty indicator within the UK Energy Sector Indicators had generated significant impacts.
8. As used here, the term 'systemic' covers the multiple impacts entailing complex and sometimes intractable causal relationships, whereby indicators affect the system within which they operate.
9. Lascoumes and Le Galès (2005) describe instrumentation of public policy as the whole of the problems generated by and involved in the choice and use of instruments (techniques, operational modes, policy instruments) that make it possible to materialize and operationalize government action.
10. The concept of performativity entails the idea that speech and communication do not simply describe the world as it is, but instead act upon it. While the concept of performativity has its origins in linguistics (Austin, 1962), it has more recently been applied notably in science and technology studies to show how, for example, economics, by conceptualizing economic phenomena, actually shapes and enacts the economic 'reality' that it is supposed to analyse (e.g. Callon, 2007).
11. Often, however, the producers of an indicator (for example, alternative well-being indicators) are also their main users. For example, sustainable development indicators are often produced collaboratively by an 'inner circle' of indicator producers and obligated users of the indicators (Bell et al., 2011; Rinne et al., 2013; cf. Pintér et al., 2005).

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11. Anticipation tools in policy formulation: forecasting, foresight and implications for policy planning
Martijn Van der Steen

INTRODUCTION: ANTICIPATION IN POLICY FORMULATION

Looking ahead and anticipating conditions is an important aspect of policy formulation (Glenn & Gordon, 2006; Slaughter, 2005, 2007; Van der Steen et al., 2010, 2011, 2013). Looking ahead helps policy makers to foresee future problems, identify new or changing trends that shape the conditions for future policies, and see new types of solutions. The ability to anticipate is a crucial element of good and solid policy formulation.

Public organizations at all levels of government conduct anticipatory studies to be better prepared for unknown futures. But the practice of applying foresight to policy is often problematic: foresight is hard enough to do, but it seems even harder to properly link findings from futures studies to the working practice of policy formulation. It is one thing to do foresight, it is another thing to do something with it; anticipation in policy formulation requires both. The challenge for anticipation in policy formulation is to execute the techniques and methods for anticipation *and* to link them to the reality and turbulence of policy formulation in the context of today.

Empirical research into the practice of foresight in policy identifies a persistent gap between generating insights about the future and using these insights in policy formulation. This research shows that the problem is not a lack of interest in the future, but rather a mismatch between anticipatory knowledge and policy making (Brown et al., 2000; Cairns et al., 2006; DaCosta et al., 2008; Groves & Lempert, 2007; 't Hart & Tindall, 2009; Ho, 2012; In 't Veld, 2010; Klomp, 2012; Paillard, 2006; Riedy, 2009; Sardar, 1999; Schwartz, 1996; Slaughter, 2007; Van Asselt et al., 2007; Van der Duin & Van der Steen, 2012; Van der Duin et al., 2009, 2010; Van der Steen, 2008, 2009; Van der Steen & Van Twist, 2012; Van 't Klooster & Van Asselt, 2006; WRR, 2010). Therefore, the mismatch is more a problem of structure rather than agency – not a personal or individual lack of (or conflict of) interest in the future, but structural characteristics of policy organizations and policy processes that make anticipation problematic.

Despite examples of successful attempts to link foresight to policy in the European Union (EU) and elsewhere, the tension between present-day interests and the long-term dimension of policy making remains (e.g. see Andersson, 2010; Chan & Daim, 2012; Chermack, 2004; Colson & Corm, 2006; DaCosta et al., 2008; Fuerth, 2009; Groonbridge, 2006; Habegger, 2009; Ho, 2012; Könnölä et al., 2012; Kuosa, 2011; Nehme et al., 2012; Noordegraaf et al., 2014; Riedy, 2009; Van Asselt et al., 2010; Van der Duin et al., 2009; Van der Steen et al., 2011, 2013; Veenman, 2013; Yoda, 2011). In order to integrate anticipation into policy formulation it is important to look at both the techniques for anticipation and at the organizational capacity to integrate anticipatory knowledge into policy.

Therefore, this chapter sets out to first look at some of the professional techniques and methods for anticipation, and then identifies some of the dilemmas and possible design options for integrating anticipation into policy work (Hoppe, 2010).

ANTICIPATION: AN EXPLORATION OF TIME AS A SPACE FOR DYNAMICS

Anticipation draws attention to the role of time in policy. There are many different ways to think about time in relation to policy. The flow of time can be envisioned as clock time, a positioning tool to plot action on a timeline. Time can be seen as a utility; something people can be short of or have in abundance. This utilitarian perspective also means that time can be bought by hiring more staff. Such a utilitarian perspective of time is often used in planning and project management. This is an important perspective for policy formulation. Policy takes time to plan, solutions have a lead time before they are implemented, and effects may take a while to solidify into measurable and substantial results. To maximize the effects of a policy, planning should take into account these time lags and time spans.

But there is more to time than planning and time management alone. Time can also be seen as a space in which dynamics take place. Problems, solutions and conditions change over time. Actors and factors interact, and the outcomes of these interactions construct the social world. Conditions are not fixed, but change over time in complex cycles of interaction. These interactions take time, as they happen in time, at varying pace and intensity. Sometimes interactions create stability in time, a process that is often referred to as path dependency; the repetition of actions and interactions constructs embedded paths and routines. At other times, interactions evoke change and lead to sometimes radical change in the status quo. From this perspective time is crucial, because it is the space for these chains or cycles of interactions to take place and for effects to evoke new reactions and new patterns of interaction. Moreover, complexity theory also points at the issue of 'emergence'. Complex systems do not only consist of chains of interactions where actors respond to inputs from within the system and follow a pre-coded set of responses; actors can innovate, choose new routes, come up with fresh answers, and generate ideas and behaviour that were previously not in the system. Complex systems are not self-referential and are not bounded by what is already inside; they can refresh, innovate and emerge in new forms or interactions. Again, time is a crucial concept here, as it is the space in which such emergence occurs.

A utilitarian planning perspective of time is helpful for policy formulation in many ways, as it highlights the importance of planning ahead, considering time lags and taking capacity into account. However, the perspective of time as a space for interactions to evolve and emergence to 'happen' is equally important. Looking ahead into the space of time can help policy makers to take into account the problems, solutions and the context of the future – not only to project today's interactions and patterns onto a future timeframe, but also to consider new patterns and interactions, innovations, and new relations in the social system in the future. Anticipation is then an estimate of the dynamics into the future, an attempt to explore the flow of interactions of actors and factors. Some of these interactions take very little time and 'happen fast', with perhaps very radical effects

in the short term; other interactions take much longer, either to occur or for the effects to become noticeable. Exploring the future and looking ahead into the space of time means attempting to foresee at least some of these interactions and/or the possible conditions and outcomes of these interactions. The future is inherently 'open', in the sense that complex systems can theoretically take any possible shape, as they are not bounded to their current status. The status quo of the present is not the given state of the future, nor is it a fundamental barrier for another state of the system in the future. At the same time, the future is in many ways embedded in the current status quo; the present provides the conditions from which the future develops, partly in substance – such as demographics and natural conditions – but also in social constructions that root behaviour. Van Asselt et al. (2010) and Veenman (2013) speak of the future as *open, not empty*, to describe the dual state of the future as fundamentally open *and* also bounded in the present. The future can be anything – including completely discontinuous with the past – but often it is merely a continuation of the present. The 'art of anticipation' is to explore the future in such a way that delivers to both ends of that equation, and that balances continuity and discontinuity. This is why anticipation is 'done' and discussed in the plural: anticipation concerns *futures*, rather than *the future*.

This temporal perspective of time as a space for dynamics, and the importance of exploring the future as an open *and* bounded outcome, is relevant for three aspects of policy formulation: to identify possible, plausible and preferable problems; to identify possible, plausible and preferable solutions; and to imagine possible, plausible and preferable future conditions. We shall discuss each of these three briefly.

Firstly, a temporal perspective calls for a critical analysis of policy problems. Most policies that are designed today are intended to solve a problem in a near or distant future. Therefore, policy formulation inherently involves an estimate about future conditions. Policy has intended effects that literally take place in future times. Time is a space in which the causal dynamics initiated by policy occur. When solving problems, policy makers inherently operate into the future and attempt to create change there, in the space of future time. An important question to ask, therefore, is whether a problem of today is still a likely problem in the future. Some present-day problems disappear in the near future, or change shape dramatically. Moreover, issues that are hardly conceived as problematic today, or are not yet on the radar of policy makers, will probably constitute parts of the policy agenda of the future. Today's unemployment is different from that of 20 years ago, just as in 2030 unemployment will probably have different features. Social housing was a problem in many countries in the 1960s and it is again a problem now, but the underlying mechanism is entirely different, and at least a part of the housing problem is caused by the solutions that were attempted in the past. Policy formulation improves when policy makers look ahead at the possible or likely future characteristics of problems and take possible developments into account.

Secondly, there is the question of the range of solutions policy makers take into account when formulating policy. Do they merely look at the solutions of today and how they work in the present-day context? Or do they consider possible and plausible solutions the future may bring, and look at solutions from the perspective of possible futures dynamics? Some solutions may work well now, but are quickly overtaken by societal developments or changes in technology. Some solutions become ineffective because of developments in time, while others may be leveraged into much more effective options. New technologies

now facilitate the formation of bottom-up and ad hoc local networks, which has generated a range of new solutions for recurring policy problems that would have been impossible ten years ago. Societal actors can now solve problems for which they used to rely on public institutions. For some issues more, new solutions will emerge with the flow of time, while for other issues the solutions that work well today will be ineffective tomorrow. Looking ahead may help policy makers to make a better analysis of possible solutions for their problem.

Thirdly, the working conditions in which problems and solutions play out can differ greatly over time. Society changes rapidly and it would be a mistake not to take this into account when formulating policy. For example, is a society becoming more diverse, with a variety of cultural and social values and norms, or is it becoming more uniform, with increasingly shared norms and values and a homogeneous population that closes itself from outside influences? Are borders becoming tighter or is the world more connected and interrelated? Does technological innovation lead to more or less inequality? What are the professions of the future and what professions will become obsolete with technological development? All of these are highly relevant possible future conditions for policies that are formulated today but will have to function in the near or far future. Taking the possible and plausible future state of these conditions into account can improve the quality of policy formulation.

WHAT IS ANTICIPATION AND HOW TO DO IT?

Three Types of Added Value of Anticipation

So far, we have distinguished the importance of taking into account time as space for dynamics. We have argued that policy formulation improves when policy makers look at the possible future conditions of problems, solutions and conditions. However, this general idea of improvement can be broken down into three different benefits of looking ahead in policy making; a direct contribution, an indirect contribution and critical reflection (Table 11.1).

Firstly, there is a direct contribution. Knowledge about the future can be used as information and 'evidence' with respect to a specific strategic issue, or it may help (re-)conceptualize an already present topic in a different way, thus generating and formulating new policy options. It may also be used to evaluate the robustness of certain policy options under future conditions. In these direct ways, analysis of the future contributes directly to decision-making processes; knowledge about the future is used instantly, in the same way that present-day management information is used in administrative processes.

Secondly, looking ahead can also influence strategy making indirectly, through the contextual factors for administrative processes. This is the case, for example, if knowledge about the future is used to promote a wider debate about possible future situations, the involvement of stakeholders in decision making or culture change in an organization. The contribution here is not so much a direct application of the knowledge, but a fresh perspective that promotes a new debate about an already existing issue. The 'product' then is the debate, not the particular outcome of that debate.

Thirdly, the contribution of projections of the future to the design of a strategy can

Table 11.1   Three types of added value of anticipation

Direct contribution	Provides information about the characteristics of future situations and conditions, the future environment, or possible future partners or competitors. This can be used as policy information for policy formulation, decision support, strategic planning or the allocation of organizational capacity. Anticipatory work is used as knowledge for policy.
Indirect contribution	The process of developing anticipatory knowledge familiarizes the participants in policy formulation with thinking about possible future conditions and situations. The process of thinking ahead and of time as a space for dynamics 'sharpens' the organizational culture towards the future and makes it more common to discuss futures and think in terms of complex dynamics of systems. This familiarity with futures can even translate into 'standard operating procedure' that is future-oriented. These outcomes of an anticipatory process increase the chances for taking the futures perspective into consideration in other processes of policy formulation and help the organization to be more future-oriented as a whole. This also means that even if anticipatory knowledge is not used in policy formulation, the process as such may still be effective in terms of its indirect contribution to the future-orientedness of the organization.
Critical reflection	Thinking about the future 'forces' the organization and participants in the process to think carefully about what is important in the present, what the organization is doing now, what the biases in the current frames and discourses are, and what other perspectives, discourses and views are neglected. Thinking about futures stimulates reflection about the present-day status quo and opens up perspectives for new ways of thinking about policy problems, policy solutions and policy formulation.

also be expressed in what can best be labelled as a critical reflection. In this case, perspectives about the future are used as a vehicle for reflecting critically upon the existing course of action and the current opinions and argumentations about what the organization is doing or ought to be doing. From a futures perspective, the present and current organization looks different. Applying a futures perspective makes it possible 'to escape' from the present, and reflect on the fundamental structures of the status quo.

Two Distinct Approaches to Anticipation: Forecasting versus Foresight

Theory about long-term analysis typically identifies two main approaches to study possible futures: forecasting and foresight (Table 11.2).[1]

Forecasting results in statements about how things will be in the future. Foresight investigates how things might be (Burt & Van der Heijden, 2003; Van der Heijden, 2005; Van Notten et al., 2003; Van 't Klooster & Van Asselt, 2006). Foresight is all about identifying conceivable possibilities – 'possible, plausible and preferable futures' – using a broader arsenal of sources that are accepted as both 'possible' and 'workable' (Ogilvy, 2002).

Forecasts are based on mainly quantitative scientific resources and 'evidence', while foresight allows more space for interpretation, intuition and argumentation and looks for 'signs' of change and trends that have yet to be scientifically validated. Foresight seeks to

Table 11.2   Forecasting versus foresight

	Forecasting	Foresight
Aim	To describe how the future *will* be	To describe how the future *might* be
Activity	Predicting characteristics of the future	Exploring possible futures
Product	Saying with certainty and probability	Identifying conceivable possibilities and 'key uncertainties'
Method	Using verifiable sources, 'crisp' data and 'tight' causal models	Based on wider concepts of knowledge, skills and experiences, 'fuzzy' information, a wide range of creative and interactive and associated methods

interpret clues, rather than running established (and often outdated) facts through a fixed causal model that reflects historic processes and causalities (which may not apply to the future in any case), often with several variations in either the model or the facts, so that diversity in the findings is established (the forecasters' 'scenarios'). In a foresight study, 'desirability' and other sorts of normative judgements are a necessary part of the process. A foresight does not make or prescribe 'choices', but it does incorporate notions of 'value' into the scenarios (see also Slaughter, 2005, 2007).

Doing Anticipation: Methods and Techniques

There are a wide variety of tools and methods to investigate the future and look for possible, plausible and preferable futures (Voros, 2003). The choice of tool or technique is important for the outcomes of a study, and knowing the variety of options and mastering at least several of them is important for anticipatory work. However, there is more to anticipation than merely tools. Bell argues that foresight is not primarily about following a methodology, but mostly about the underlying skills, creativity, analytical capacity and future-oriented mindset of those engaged in the foresight work: 'No methodology has a monopoly on producing good or bad work' (2003, p. 241). Methods and techniques count, but do not guarantee a successful foresight project. Also, not every method appeals equally to the policy makers who need to work with the results of a study. Bell stresses that the choice of methods depends on a goodness of fit with the skills of the actors involved, of the organization, the policy problem at hand and other contextual factors. There is a codified methodology, but the choice of a certain method largely depends on context. We shall briefly discuss a set of anticipatory methods.

Scenario study
The scenario method (e.g. Bell, 2003; Schwartz, 1996; Van der Heijden, 2005; Van Notten, 2005; Van 't Klooster & Van Asselt, 2006) is one of the most commonly used anticipatory methods. Scenarios are 'stories describing different but equally plausible futures that are developed using methods that systematically gather perceptions about certainties and uncertainties' (Selin, 2006, p. 1). The fundamental assumption of the method is that there are deep uncertainties about the future, that many different directions of development are possible, but that a coherent method can help to explore that

inherent variety. The goal is not to predict the future but to map the variety and to see the multiplicity of futures.

The first step in a scenario study is to analyse a wide range of possible developments that may affect the future. After that, the scenario team selects the two most powerful forces for the future of a certain field, which then become the 'driving forces' for the scenarios (Van der Heijden, 2005; Van 't Klooster & Van Asselt, 2006). The driving forces are put on two scenario axes, and together constitute four dominant scenarios. The scenarios are then further filled in with more or less detail. The purpose of building a variety of scenarios is not to pick and choose the 'best' scenario but to be prepared for all possible options. Policy makers can aim for a particular future, but the true purpose of scenario study is to be prepared for many different possible futures, and to be able to recognize them early on and adapt when necessary.

Both the traditions of forecasting and foresight use scenarios. In the tradition of forecasting the scenarios are based on analysis of current trends, which are translated into elaborate models that project different possible variants of futures. This is done with quantitative methods that greatly benefit from the increased capacity of computers to calculate possible options. That has allowed builders of models to produce an enormous variety of options and incorporate highly complex relations and many variables into their models. A scenario study from the forecasting tradition typically produces scenarios that consist of numbers that represent characteristics of that scenario; for example, one scenario of 1 per cent economic growth and one of 3 per cent, with the different consequences of each scenario for unemployment, social welfare, the annual budget, national debt and so on.

Scenario studies are used differently in the school of foresight. The point is still to produce a variety of possible futures, but the process is more qualitative and involves interaction with many stakeholders, creative techniques and large group sessions (e.g. Janoff & Weisbord, 2006; Novaky, 2006). The scenario team organizes interactive sessions with many stakeholders to discuss possible trends. Then, there is a discussion to condense 'driving forces' from the variety of trends. The group (team and participants) construct a matrix that scores the level of impact and the level of uncertainty of trends and developments. The two trends that have the highest combination and uncertainty become the driving forces of the scenario study, because they represent the most relevant uncertainties to explore for the purpose of this study. Defining the driving forces is a crucial step, because the driving forces become the backbone for the scenario study and in this approach are the product of complex group interactions. But it can be risky, because groups sometimes produce creative driving forces that 'feel right' to the group and reflect the consensus in the room, but are not considered relevant by experts in the field. That is not to say that the group is wrong or not very good at formulating driving forces; experts can be locked in the path of a scientific field and look at the future through the rear-view mirror; they are bounded by current empirical data and it is not directly their professional expertise to look beyond the empirical evidence. Therefore, this foresight approach to scenario studies must seek a balance between consensus and expertise, between asking the 'usual suspects' and bringing in new people with fresh ideas, and between creativity and evidence when thinking about possible developments. Outsiders bring in new ideas, but these may not resonate with insiders in the organization; newbies provide a fresh look on a topic, but often lack the insight into the basic concepts and structures of a problem;

thinking out of the box is important, but many scenario studies eventually have to resonate with people working 'inside the box' as well.

Theoretically, these problems also apply to the forecasting approach, but since forecasting relies more on scientific evidence and is done from a scientific and positivist tradition it is hardly an issue in practice. In the case of foresight, the balance between creativity and evidence is less clear; the point of doing a foresight study is to look beyond what is currently known towards unexpected, not yet adequately researched and not completely understood trends. That inherently involves creativity and uncertainty, but also requires a basis for credibility and quality.

Scenarios can be developed at many different levels of analysis (Dammers, 2000). They can be limited to a single sector (e.g. transport), but also cover multiple sectors. In fact, futures thinking can be a wedge to break silos and cut across fixed concepts of domains and sectors. The level of abstraction for a scenario is also important: does the study focus on the micro (unemployment), meso (social welfare) or macro (economic structure and societal norms and values) level? Is it about the organization, the sector or the broader environment? Another choice to make is the level of exploration and speculation for the scenarios. Does the scenario primarily follow current trends, established relations and existing policies? Or should it look beyond current patterns and seek out discontinuities? A further choice is between 'prospective' or 'projective' scenarios. Projective scenarios are based on extrapolations and continuations of current trends to look *into* the future. Prospective scenarios start from the future, look at possible futures, and then reason *back* to relate the scenarios to the present ('backcasting'). Both options produce narratives of how and why the present developed into possible futures, but the direction for producing those narratives is different. A projective scenario 'argues forward in time', while a prospective scenario reconstructs the path towards a scenario 'back from the future'.

Scenarios can be subdivided into two types; policy scenarios or environmental scenarios. A policy scenario describes possible variants or 'worlds' for a specific policy, whereas an environmental scenario describes different possible contexts in which a variety of policies can be 'tested'. Environmental scenarios can be made once and then used for different policies; they are non-specific for a particular type of policy. Different economic scenarios can be used to test all sorts of policies, from educational policy to employment policy and traffic congestion. This use of environmental scenarios is referred to as wind tunnelling; policy proposals are tested for their ability to perform in different possible future environments.

A final choice for scenario builders is the amount of 'policy intelligence' to build into the scenarios. Traditionally, scenarios are considered policy neutral; this means that in building the scenarios there is no room for policy makers to change course when they see matters become worse. They do not correct along the way or take measures to compensate negative effects of the scenario. Therefore, policy-neutral scenarios typically produce 'extremes', and a frequent critique is that such extremes will never occur in practice because policy makers correct along the way. Scenario builders often argue that the extremes help policy makers to see the route they are on, while critics counter that the extremes of policy-neutral scenarios result in extreme cases that 'real' policy makers do not take seriously because they consider them too unrealistic. However, it is perfectly possible to design mildly policy-rich scenarios and take the learning capacity of policy

makers at least somewhat into account – for instance by 'allowing' policy makers in the narrative of the scenario to correct the most negative aspects of the scenario and 'make the most of it' within the bounds of the driving forces.

There are many other methods for futures studies apart from scenario studies (Bell, 2003; Glenn & Gordon, 2006; Slaughter, 2005). These methods can be applied both in the approach of forecasting and foresight. We shall briefly discuss several of them.

- Trend extrapolation: researchers set out values on a timeline and extrapolate these historic trends into the future. The extrapolation can be linear or more dynamic, and often a variety of deviations from the trends are also projected. This creates a 'channel' in which the trend will probably move, but also leaves room for variation.
- Modelling: researchers construct a model of a real-world social system, in which the different variables that are considered typical for the system are related to each other. Variables respond to each other and the models can be highly sophisticated; some even argue that it is nearly possible to build models that actually represent the reality of complex systems, but this remains contested. Models usually work in 'rounds' that represent fixed time periods; by running multiple rounds the future of a system can be simulated. Different types of interactions of actors and factors can be simulated to see the variety of options a system can produce. This can be done deliberately to explore certain directions, but also in a Monte Carlo-type random selection. The model provides the researchers with a range of possible outcomes of the actual social system in a greater level of detail.
- Scanning: the researcher analyses a large pile of possible sources to identify possible patterns. Sources may vary greatly, from mainstream news media such as newspapers, magazines or television programmes, to obscure blogs and Twitter messages. Researchers can also look for more scientific sources, including expert websites, publications and academic research programmes that reflect the development in expert fields.
- Emerging issues: this type of analysis somewhat resembles 'scanning' but deliberately sets out to look beyond the current lines of reporting. The idea is to look beyond the current discourse, to notice possible disturbances or signs of new developments early on. In hindsight, most unexpected 'path-breaking' developments had already been developing for years outside the line of sight of 'normal' research. Usually, the identification of emerging issues requires looking in different places, talking to different people and looking at other types of sources. For example, some researchers look at art house movies, visit new places, read blogs or invite groups they usually would not talk to.
- Signposting: this method identifies triggers, signs or thresholds of the emergence of a possible future that can act as a warning that a particular scenario is becoming reality (Splint & Van Wijck, 2012; Walker et al., 2012, 2013). Signposting includes an overview of several possible futures that can be translated into pathways for which signs can be distinguished. The signs can help warn policy makers early and respond in a timely fashion. At the same time, naming the signs also generates awareness of the possibility – or even inevitability – of surprise.

PROBLEMS OF ANTICIPATORY WORK: EPISTEMIC AND PRACTICAL CHALLENGES

In spite of a wide range of methods and a professional body of knowledge and practice to support foresight studies, anticipation is not automatically part of policy work. On the contrary, anticipatory work is often not used in policy making – not because policy makers do not care about the future but because knowledge about the future is difficult to fit into the policy process. There are several reasons for this, grouped into two categories; epistemic dilemmas of futures knowledge, and the more mundane practical dilemmas of doing anticipatory work in the context of a policy organization and policy processes.

Epistemic Dilemmas of Knowledge about the Future

First is the epistemic dilemma of the performativity of anticipatory knowledge (Bressers et al., 2013; Eshuis & Van Buuren, 2013; Nelson et al., 2008). Futures studies describe possible futures, but in doing so intervene in the social process that in part constructs the future that emerges. Scenario studies 'describe' the future, but are also interventions in the future. Some of the most successful scenario projects have falsified themselves; the famous scenarios of the 'Club of Rome' never became reality, mostly because of their 'success'. Scenarios generate awareness of certain behaviour and conditions and by raising awareness they intervene in the social system itself. Right or wrong are not viable categories for anticipatory knowledge. Accuracy is not a viable indicator of the quality of futures studies (Van der Duin & Van der Steen, 2012; Van der Steen & Van der Duin, 2012).

Secondly, knowledge about the future always involves a large element of speculation. Facts and fantasy – and educated guesses – are inherent elements of any estimate of the future (Nelson et al., 2008). Even in forecasting, the highly sophisticated quantitative and validated models still involve a degree of speculation; uncertainty is mapped and 'tamed' by estimates and projections, but cannot be taken out of the models. However, the future is not entirely speculative. Facts do play their role. As the Scientific Council for Government Policy (WRR, 2010) in the Netherlands puts it, 'the future is open but not empty'. The future is not determined by the present but is also not disconnected or isolated from it. Measurements about the present, and the identification of trends and patterns, are important indicators for probable and possible future developments, but creative thought and fantasy are also important. The study of the future involves balancing this dynamic relation between future and present, and between facts and fantasy. 'Good' knowledge about the future ought to combine objective measurement with speculative and imaginative interpretation. It is not either/or – it must be both.

A third problem is the impossibility of empirical measurement about the future: we cannot run a test to diagnose the future and cannot listen to eyewitness accounts. Knowledge about the future cannot provide visible 'proof' of the claims in the research. This is not just a methodological issue up for academic debate; the absence of proof has practical relevance. While the absence of measurement is not a unique feature of knowledge about the future, it is more plainly visible here than in other fields of knowledge. Furthermore, our awareness of the speculative nature of insights about the future is higher than in other domains. At the same time, our tolerance for uncertainty seems to be smaller in issues about the future.

Practical Dilemmas of Anticipation in Policy Formulation

There are many practical dilemmas of 'doing' anticipatory work in the context of policy making and policy organizations. Van der Steen and Van Twist (2012) speak of anticipatory policy work, which is the activity that links futures studies and policy work. Anticipatory policy work can be categorized into three different forms: content, settings and procedures.

The first type of anticipatory work is to generate content that can be used in policy formulation. This can be done by conducting a foresight study, but also by citing, translating, summarizing and interpreting original futures studies and papers from specialized institutes and scientists. In this way, the anticipatory policy work is literally to feed the policy formulation with futures knowledge and ideas.

A second way of anticipatory policy work is to organize settings (e.g. events or meetings) where policy makers are brought into contact with futures research and researchers. Such meetings may lead to an improved understanding of what futures studies is, and how it may be used (and how it should not be used) in policy making. In this way, futures knowledge is not brought directly into the process, but policy makers are brought into circumstances where they can interact with people and insights from the field of futures studies.

The third way to link anticipation to policy work is to fit anticipation into routine organizational procedures, such as a budget cycle, policy evaluation or check-lists for policy formulation. The idea behind this approach is that policy work is highly structured by standard operating procedures (SOPs) and organizational routines. If anticipatory policy workers manage to make SOPs more future-oriented, there is a greater likelihood that policy formulation will be future-oriented. That is why some anticipatory policy workers choose to not work directly on policy projects, but rather work from important fixed procedures in the organization. For instance, from the dominant routine of the budget cycle, they can then influence a wide array of policy formulation without active participation in all of the separate policy projects. By integrating 'long-term outlook' as one of the required fields in a policy memorandum, they can directly influence the work of policy makers without personally interacting with them. If anticipatory policy workers can 'load' long-term-oriented indicators into the formats for policy evaluation, they can influence the course of policy processes. Organizational repertoire may be a very promising avenue for anticipatory policy makers to promote a futures orientation in policy formulation.

Van der Steen and Van Twist (2012) looked at how this process plays out in practice. They interviewed anticipatory policy makers in all governmental ministries in the Netherlands and explored their practical strategies for increasing their impact on the policy process (meaning more futures-oriented policy formulation).[2]

Many of the anticipatory policy workers argued that in order to be effective, anticipatory work should be done as close as possible to where the actual policy making takes place, for instance, by participating directly in policy making. However, they also stressed that this was easier said than done. An important challenge for them was the allocation of their scarce capacity; there were few anticipatory policy workers and many policy projects, and it was difficult to select the policy processes to focus on. Moreover, many processes of policy formulation were initiated, but many of them were abandoned later on, and it

was hard to tell beforehand which of the policy projects were most likely to make it to an approved policy. Also, 'regular' policy makers working on a project did not always accept the 'help' of anticipatory policy workers. Policy workers often realized all too well that a longer time horizon would complicate their work. The issue of how to get into policy processes was quite problematic for most anticipatory policy workers.

Another problem for anticipatory policy work was the lack of a long-term policy agenda in most governmental ministries that would serve as leverage to push anticipatory work into the policy process. Interviewees stated that the future was hardly an issue in the portfolio of 'regular' policy workers since there was no clear demand for it in the organization. To counter this lack of demand, anticipatory policy workers often try to tempt the leadership to build a future-oriented agenda for their organization. Some interviewees suggested that in order to make the future an important issue in policy formulation it should be treated as much as possible as a 'normal organizational routine' (see also Van der Steen et al., 2013). The procedural element of anticipatory work may be more crucial than it currently is; most organizations focus on producing content, but 'mainstreaming' anticipation into an organization's procedures may be much more effective.

Furthermore, the impact of anticipatory knowledge depended greatly on people. Policy makers need to be assured that anticipatory policy workers will be mindful of the present-day problems and dilemmas of policy formulation, and anticipatory policy workers need to take personal aspects more into account. Anticipatory policy work involves relational skills, network building and personal authority. This implies that good anticipatory policy work requires people who can relate both to the world of futures studies *and* to the world of policy formulation. Being able to conduct a scenario study or applying another anticipatory method is but one part of the job; being able to develop meaningful relations with the regular policy organization is just as crucial to the impact of anticipatory work.

CONCLUSION: DESIGN OPTIONS FOR BETTER ANTICIPATION IN POLICY FORMULATION

Thinking about the future is inherently done in the plural. There is not one future; there are many possible and plausible futures. The purpose of good anticipatory work is to generate a range of possible futures that are beyond the continuation of the patterns of the past and present. These patterns are important and to some extent will shape the future, but futures are not limited to these patterns; the future is 'open but not empty' (WRR, 2010). The future is an infinite number of possibilities, which are not equally likely, plausible or preferable. The keys to conducting good anticipatory work are to take discontinuities and the width of possibilities into account, to be able to prioritize and filter out the most important options, and to relate these options meaningfully to the current discourse in policy formulation.

Anticipation can provide important insights for policy formulation. This can be done directly, when anticipation provides 'knowledge for policy', but also indirectly, when the participation of policy makers in anticipatory work opens up their time horizon and makes them more inclined to take future dynamics into account. Anticipatory work can help policy makers come up with better solutions for policy problems; more importantly, it helps them to identify the problems, solutions and working conditions of the future.

In this chapter, we have presented a variety of methods to anticipate unknown futures. These methods are well constituted in a professional body of knowledge and practice, and some of them are actually described in quite strict terms. Taking these methods seriously is important for doing good anticipatory work. However, as Bell (2003) argues, tools and methods are only as good as the person or team that is applying them. In the end, good anticipatory work inherently depends on the person or team doing it. Imagination, analytical capacity, leadership and listening capacity are all part of the varied skillset that is required to conduct good anticipatory work. Good anticipatory policy work needs professionals that understand both the context of futures studies and the dynamics of the process of policy formulation.

We have also stressed that in order to make processes of policy formulation more futures-oriented it is necessary to take a good look at the design of the organization. Doing anticipatory policy work is not the same thing as throwing insights from futures studies towards policy makers. The link between anticipation and policy making needs to be forged – and sometimes perhaps forced. This is partly done in ad hoc projects, partly in interactions with policy makers, but also by a deliberate design of policy processes and of policy organizations. More specifically, we see three elements of design that increase the chances of anticipatory policy formulation.

Firstly, the positioning of anticipatory activities matters greatly. A physical presence in the proximity of regular policy work and the leadership of the organization enhances the impact of anticipatory work. Secondly, anticipation should not be overly focused on – or even reduced to – the use of one method. The scenario method is used often, but it is just one of many methods for conducting futures work. Scenarios are but one instrument for generating ideas about possible futures, and many of the other instruments can suit the purpose of policy formulation. Moreover, although forecasting remains the most accepted technique in policy organizations for projecting the future, it renders only a limited projection of the future. For many complex policy issues, forecasts overstress the continuity of the future and bring in too little of the complexity; they do not take seriously the perspective of time as a space for complex dynamics, which is a major weak point of the forecasting approach. Therefore, one of the challenges in linking anticipatory work to policy formulation is to develop methods that provide rich narratives about the future, but still remain relevant and practical for policy makers.

Thirdly, the impact of anticipation in policy formulation probably relies the most on informal or 'soft' factors, most importantly personal skills, reputation and the narrative that anticipatory work and workers put forward. The importance of narratives cannot be overestimated. A 'strong story' is needed to open up the policy process and the policy makers involved to the impact of the dynamics of time. Individual presenters of studies, but also the boundary workers that mediate between foresight and policy, can have a great impact on the use of futures knowledge in policy. Policy organizations must invest in leaders that have legitimacy in both the policy world and in the world of research. These can be former policy workers, senior administrators or researchers with close links to policy work and the networks where policy is developed.

NOTES

1. For example: Bell, 2003; Brown et al., 2000; Dammers, 2000; Glenn & Gordon, 2006; Godet, 2006; Groves & Lempert, 2007; Kristof, 2006; Sardar, 1999; Slaughter, 2005, 2007; Van Asselt et al., 2005, 2007; Van der Heijden, 2005; Van der Steen et al., 2010; Van Notten, 2005; Wilkinson & Kupers, 2014.
2. See Van der Steen and Van Twist (2012) for a more extensive discussion of the dilemmas of anticipatory policy work and design principles for more future-oriented policy organizations.

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12. The role of public participation and deliberation in policy formulation[1]

Genevieve Fuji Johnson

Over the past two decades, theories of deliberative democracy, which comprise the dominant area of contemporary political thought (Ercan & Dryzek, 2015), have fed directly into citizen engagement mechanisms in policy processes, broadly understood to include the clarification of values, interests, and options in the development of policy within either established legislative channels or more diffuse advisory bodies. Such mechanisms have had an undeniable uptake in numerous policy areas, including education, policing, urban planning, resource management, hazardous waste management, language protection, and climate change mitigation and adaptation. Policy elites increasingly recognize the importance of public forums that facilitate not just the participation but also the deliberative engagement of citizens on pressing issues. Elites are more and more familiar with mechanisms – in Archon Fung's (2003) terminology, minipublics – based on or associated with deliberative democracy, including Citizens' Juries, Deliberative Polls®,[2] Citizens' Assemblies, Citizen Initiative Reviews, and participatory budgeting.

In principle, at least, this application of theory to practice should be welcome. The normative objectives of such mechanisms include clarifying justifiable perspectives and developing a convergence of views among a sample of citizens, which in turn provide an ethically sound basis for collectively binding decisions. Other objectives include supplementing existing procedural channels in order to legitimate policies and protect the rights of citizens. Ideally, moreover, these mechanisms empower individuals by providing opportunities for them to develop civic skills of communication and argumentation. Yet another aim is to build relationships among citizens who do not typically interact and who may or may not share similar views. In other words, the theory behind these mechanisms seeks to enhance democracy, citizenship, and community.

In practice, we should be sceptical. Politics continues to be characterized by deeply entrenched power relations, and we should therefore not assume that these mechanisms necessarily improve on more elitist processes and result in more inclusive, just, and legitimate policy. With this in mind, it is important to critically question experiments undertaken in the name of citizen engagement. What precisely is the role of citizen engagement in policy formulation?[3] Why are particular procedures being implemented in certain policy areas, what strategic or material interests are prevalent, and what direct linkages to policy are being established? Does citizen participation and deliberation help or hinder the development and selection of policy options? Or are they essentially inconsequential in the making of policy decisions?

Empirically, it is difficult to respond to these questions because the vast majority of citizen engagement mechanisms take place some distance from the formal processes of policy formulation. As Robert Goodin and John Dryzek (2006) note, deliberative forums that are 'formally empowered as part of a decision-making process' are rare (p. 225). Even

when commissioned by government departments or agencies, they tend to be 'one-off' events and advisory in nature. They typically focus on general issues within a policy area and produce broad recommendations that may or may not be incorporated into policy. While the research on these mechanisms is growing, there is little in the literature on citizen engagement that demonstrates an immediate and significant connection to the formulation of policy options.

This chapter thus scans the literature on citizen participation and deliberation – both normative and empirical – to make generalizations that can apply specifically to policy formulation. The chapter opens by expanding on the normative aims of deliberative democracy understood specifically in terms of participatory deliberation. It then highlights findings from empirically oriented studies on citizen engagement feeding in to various stages of the policy cycle in general and to policy formulation in particular. The chapter closes with reflections on principles that may help researchers, practitioners, and policy makers ensure that citizen engagement procedures not only continue to proliferate but that they do so in ways that advance democracy – especially in policy formulation.

THE IDEAL AIMS OF PARTICIPATORY DELIBERATION

Although there are important differences between participatory democracy and deliberative democracy, the two forms of democracy are related in significant ways. In this chapter, the focus is on the theories and practices that are shared between them. This can be visualized as a Venn diagram comprising two circles – one representing characteristics of deliberative democracy and the other representing characteristics of participatory democracy – with the intersection of the two sets representing participatory deliberation.[4] The intersection thus includes deliberative democracy that is participatory and that involves small-scale as well as large-scale forums and systems. This conception of democracy derives from an ideal of politics in which citizens[5] actively share reasons, engage in debate, and create laws. It also includes participatory democracy that involves the informed and sustained exchanges of ideas, perspectives, and arguments among citizens.

The origins of participatory deliberation can be traced back to ancient Athens (see Johnson, 2015, pp. 3–23), where the developing of policy options and making of policy decisions happened in the *ecclesia*, or popular assembly. All citizens were expected to attend and contribute to deciding on the affairs of the *polis*. Most scholars, however, do not reach this far back into history and instead understand it to be rooted in the Western Enlightenment tradition, which has focused on developing principles related to equality and freedom of men and the proper authority of government. In the seventeenth and eighteenth centuries, British scholars such as Thomas Hobbes, John Locke, and John Stuart Mill began making qualified articulations of the equality of men (and, in the case of Mill, women). The bases for their understandings of equality were located in different conceptions of important human capacities – for Hobbes, a capacity for self-defense, for Locke, a capacity to appropriate private property, and, for Mill, a capacity for rational and intellectual thought. At the time, these developments were principally theoretical – many individuals continued to be marginalized, exploited, and oppressed by dominant social, political, and legal norms. In elite eyes, many continued to be seen as less than fully human. In any case, these meditations on equality led eventually to a reconceptualization

of government as a product of human 'will and artifice.' Over time came the widening of the franchise and, with the rise of modernity, the ascendancy of representative democracy. Representative democratic government properly and justifiably exists by the consent of its citizens, who implicitly agree to transfer the exercise of their natural rights and freedoms to a government that in turn upholds their civil rights and freedoms. Citizens maintain the ultimate authority for policy decisions. Theoretically, their government must be responsible and accountable to them.

In reality, representative government has taken on many dystopian qualities. Government bureaucracies have grown in size, responsibilities, and functions, thus becoming impenetrable by the average citizen. Just as disheartening is the wide disconnect between average citizens and their representatives, who, for a range of reasons, are often unresponsive to the interests, concerns, and desires of their constituents. What is important to many citizens is frequently not incorporated into public policies. In turn, voters become apathetic and less inclined to vote. They also become mistrustful of politicians, which further dissuades them from participating in elections. As a consequence, voter turnout declines even more and popular mandates are questionable. In many respects, participatory deliberation is a response to these shortcomings.

The impulse of this form of democracy is simple: that citizens actively participate, develop knowledge, engage in reasoned argument, and be empowered in processes for collective governance.[6] Many areas of public policy are too important not to directly involve citizens, especially those who are immediately affected. For example, areas associated with risk, uncertainty, diverse perspectives, opposing interests, and outright conflict call for broad public examination, discussion, and debate because the implications for existing and future generations are too great. Direct engagement – involving the exchange of information and reasons and the effort to find generally acceptable agreements – may be the only way to ensure that we authorize and consent to decisions on important and complex issues.

Despite the diversity in the theoretical literature, there are identifiable criteria for participatory deliberation (Johnson, 2009, 2011, 2015). These are inclusion, equality, information, reasoning, agreement, and empowerment. Proponents of this conception of democracy maintain that where our interests and desires are at stake in a policy decision, we ought to be included in processes concerning that decision. Other forms of inclusion refer to specific interests, perspectives, and epistemologies. The democratic principle of equality holds that all should have equal opportunities to meaningfully contribute to the decisions that govern us. Reason giving, receiving, and considering are also central. Amy Gutmann and Dennis Thompson (1996), two early proponents of deliberative democracy, define reciprocity as offering reasons acceptable to others who are 'similarly motivated to find reasons that can be accepted by others' (p. 53). Jane Mansbridge et al. express a similar sentiment, although they focus less on reasons and more on considerations. Accordingly, participants in deliberation ought to 'advance considerations' that others 'can accept' – considerations that are 'compelling' and 'persuasive' to others and that 'can be justified to people who reasonably disagree with them' (Mansbridge et al., 2010, p. 67). Proponents also emphasize the importance of processes that give rise to expressions of agreement or shared interest. Over the years, theorists have increasingly distanced themselves from the consensus standard originally articulated by Jürgen Habermas[7] (1996) and have opted instead for 'provisionally justified agreements' (Gutmann & Thompson,

1996, p. 94) and 'ongoing cooperation with others' (Bohman, 1996, p. 100).[8] Relative to existing forms of representative democracy, participatory and deliberative mechanisms for developing policies may well be more likely to result in collective decisions that have a stronger claim to legitimacy and accord with principles of justice. Another critical aim is empowerment in terms of a connection to policy formulation.

PARTICIPATORY DELIBERATION IN PRACTICE

For more than a decade, researchers have been systematically studying participatory and deliberative democratic processes to determine their impacts. Although little has been written about this kind of citizen engagement within the formal channels of policy formulation, quite a bit has been written about it in more diffuse public arenas. As Fung noted in 2003, the benefits of citizen engagement, particularly empowered participatory governance, include political education, social solidarity, political critique, and popular control. As he writes, 'the democratic contributions of actually existing minipublics extend far beyond legitimacy to include public accountability, social justice, effective governance, and popular mobilization' (Fung, 2003, pp. 339–40). Since the early 2000s, a number of these benefits have been borne out by empirically oriented studies (see Johnson, 2015). From this body of literature, we can identify basic trends concerning the role of participatory deliberation in policy formulation. Particularly pronounced are those trends related to the educative benefits for deliberative participants, policy elites, and the broader public in terms of clarifying policy perspectives and developing informed policy positions. Other trends include those related to the development of clear and stable preference, as well as inclusive, just, and accountable policy, all of which can transpire through participatory deliberative mechanisms.

Researchers who report on the positive impacts of participatory deliberation tend to focus on educative functions and, in particular, the development of participants' capacities for reasoning in and through deliberative democratic processes. Their common finding is that the collective deliberation of citizens results in the development of more informed policy perspectives and preferences, even if these do not feed into actual policy options. Simon Niemeyer's study of two deliberative experiments in Australia – the Bloomfield Track Citizens' Jury and the Fremantle Bridge Deliberative Survey (Niemeyer, 2011) – finds salutary effects of deliberation for correcting media-induced distortions of the opinions of participants. In the Citizens' Jury experiment, 12 randomly selected participants were asked to consider recommendations concerning the future management of the track during a facilitated deliberative process (Niemeyer, 2011, p. 113). The process took place over four days: 'One day of preparation and site inspection; two days of information-gathering during which witness presentations were given; and a final day of deliberation' (p. 113). The Fremantle survey consisted of a one-day deliberative forum involving 'approximately two hundred residents drawn from a random sample of six thousand responses to a community survey implemented in Fremantle and the wider city of Perth' (p. 119). Niemeyer claims that both forums brought about important cognitive developments: participants became less susceptible to the distorting effects of emotionally appealing content and symbolism and better able to assess issues 'across a wider range of considerations on more equal terms' (p. 124). Both events enabled participants to check

their initial and inchoate arguments 'against reality' and engage in a 'greater level of inte-
grative thinking across the range of relevant issues' (p. 124). Thus, both events enabled
participants to clarify their policy perspectives and make them more directly based on
evidence and reason. Niemeyer acknowledges that neither event was connected to an
actual policy decision, but he writes that 'there is no evidence to suggest that participants
took the process any less seriously' (p. 138).

Niemeyer's findings concerning the clarification of policy perspectives through delib-
eration confirm those from several earlier studies of deliberative events in the public
sphere. For instance, examining an event organized by the Pew Charitable Foundation
on social security in Arizona, Jason Barabas (2004) finds that participants improved
their understanding of issues at stake in the policy area. The one-day Americans
Discuss Social Security forum was intended as an opportunity for citizens to discuss
options for social security reforms. The forum involved 408 participants, some of whom
were randomly selected and some of whom were invited. Based on an analysis of pre-
and post-deliberative surveys, Barabas (2004) found that the collective deliberation
enabled participants to discard their 'inaccurate factual perceptions as well as rigidly
held political views' (p. 699). Barabas concludes that through processes of deliberation,
participants can soften strongly held views, alter opinions, and increase knowledge (p.
699). Similarly, Stephen Elstub (2008) writes that there is 'extensive empirical evidence
available from unpartisan deliberative forums like citizens' juries and deliberative
opinion polls that indicates citizens have the competence to address complicated issues'
and that 'participants will change their preferences in light of reasons and information'
(p. 179). Goodin and Dryzek (2006) also find that deliberative events produce informed
policy positions.

James Fishkin and his colleagues' Deliberative Polling® research is the longest ongoing
analysis of minipublics. Drawing from his study of more than 20 Deliberative Polls since
the early 1990s, they have found extensive evidence of information gains on the part
of participants.[9] Deliberative polling involves the collective deliberation of a randomly
selected sample of an adult population. This sample is provided with balanced informa-
tion from an advisory panel comprising a comprehensive range of experts. Deliberative
Polls begin and end with a survey of participants' opinions. The pre- and post-deliberation
surveys provide, respectively, an indication of 'top-of-head' opinions that are representa-
tive of the broader adult public and an indication of more considered opinions that would
be representative of those adequately informed about the issue at hand. As Fishkin (2011)
writes, deliberative polling 'produces genuine gains among the participants in knowledge
of information that has been verified as true and relevant' (p. 397). In other words, these
gains are in knowledge that has been certified to be correct by the panel of experts repre-
senting a balance of views and interests. As Fishkin puts it, 'we measure information gains
only where we can certify, and our advisory groups can certify (despite their other disa-
greements), that the information is accurate' (p. 397). In addition, Fishkin, with Cynthia
Farrar and other colleagues, has found that deliberation not only alters policy attitudes
at both the individual and aggregate levels, but also 'tends to bring policy *preferences*
(ordinal rankings of policy alternatives) closer to *single-peakedness*, a help in avoiding
cyclical majorities of the sort identified by Condorcet and Arrow' (Farrar et al., 2010,
p. 334, emphases in the original). Thus, not only can deliberation result in more informed
policy preferences, it can also produce a more consistent articulation of preferences. Both

would be beneficial to policy elites in their endeavors to develop and formulate stable and effective policy.

Participatory deliberation can also have clarifying effects for the broader public and electorate vis-à-vis policy options. Two kinds of exercises in particular can have a direct impact on public preferences and, by extension, direct consequences for policy formulation: Citizens' Assemblies and Citizen Initiative Reviews. Goodin and Dryzek highlight the Citizens' Assembly on electoral reform in British Columbia (BC), Canada, which took place in the mid 2000s. This assembly of 160 randomly selected citizens was established by the provincial legislature to recommend a new electoral system for the province (Goodin & Dryzek, 2006, p. 225).[10] As Goodin and Dryzek (2006) note, the BC Citizens' Assembly 'was constituted as a formal part of the political system' and 'legislatively charged with making a recommendation that would automatically go onto the ballot as a referendum proposal' (p. 225). They characterize this procedural feature as 'an ironclad commitment from the provincial government from the start' (p. 225). While the deliberative mechanism was formally entrenched in the process of formulating policy for electoral reform in BC, its recommendations did not secure the necessary 60 percent support of the BC electorate.

More recently, John Gastil and Katherine Knobloch's large-scale study of Citizen Initiatives Reviews (CIRs) in Oregon further confirms many of these positive findings concerning participants' quality of deliberation, their ability to reason through complex policy issues, their capacity to make informed recommendations for the selection of policy options, and their ability to influence voter choice on ballot initiatives (Gastil & Knobloch, 2010; Knobloch & Gastil, 2015; Knobloch et al., 2012). Similar to Citizens' Juries, Citizens' Assemblies, and Deliberative Polls, CIRs involve the collective deliberation of a randomly selected sample of a population. Meeting over several days, these kinds of forums facilitate deliberation in plenary sessions, during which there are presentations by experts and/or advocates and opportunities for participants to ask questions and seek clarifications. Deliberation also occurs in small 'break out' groups, in which participants discuss issues in greater detail. Typically, participants reconvene in plenary so that all are able to express and exchange reasons. Toward the end of the event, participants are asked to draft a statement of positions – including a position in favor and against, as well as a consensus position, if one exists – on the given topic. The citizens' statement is then included in the voters' pamphlet, which is sent out to every voter in the state. In their evaluations of the processes, Gastil, Knobloch, and their team find that participants consistently engage in high-quality deliberation on a range of proposed policies and that the citizens' statements serve to inform voters' decisions on the ballot initiative (Gastil et al., 2014).

The clearest connection between participatory deliberation and policy formulation is found in innovations originating in Brazil. Participatory budgeting in Brazil emerged out of a specific social, economic, and political context characterized by widespread efforts to re-democratize political practices and institutions in the wake of a military dictatorship that ended in the mid 1980s (Santos, 1998).[11] There was growing activism, mobilization, and organization as the Workers' Party became increasingly popular at the municipal level in the early 1980s. Andreas Novy and Bernhard Leubolt (2005) write that citizens in impoverished districts began to demand greater autonomy in their neighborhood initiatives and greater investment in urban infrastructure and services. In 1988, the Workers' Party came to power in Porto Alegre with, as Graham Smith (2009, p. 35) puts it, 'an

explicit pro-poor commitment.' The following year, the new ruling party established participatory budgeting in the city in order to empower citizens with respect to public decisions that immediately affected them, such as those concerning the allocation of funds for schools, roads, water, sewers, health care, and social welfare. Participatory budgeting has since provided the procedures and institutions for direct public participation, and the election of delegates and councillors to participate on citizens' behalf, in policy decisions concerning a portion of municipal budgets for capital expenditures. It enables citizens to develop, implement, and evaluate policies for realizing shared goals related to projects in their communities. Although the municipal council retains the legal authority to reject policy proposals, in practice it has never changed the outputs of participatory budgeting (Novy & Leubolt, 2005, p. 2035). Over the years, distributable resources for participatory budgeting in Porto Alegre have grown from 3.2 percent in 1989 to 11.2 percent in 1990, and 17.5 percent in 1991.[12] Currently, district and thematic popular assemblies determine the distribution of about 10 percent of the budget (Pateman, 2012, p. 12). According to Yves Cabannes (2004), '100% of the budget is considered participatory, because the Participatory Budget Council (COP [*Conselho do Orçamento Participativo*] in Portuguese), made up of elected delegates, examines and comments on the complete budget (before it is sent to the Municipal Council)' (p. 40). He goes on: 'The part debated in assemblies in which all citizens participate equals 100% of the resources available for investment, which varies year to year and is more than 10% of the total budget' (p. 40).

Fung (2003) highlights the benefits of participatory budgeting for the development of policy, writing that 'this process generates a wealth of detailed knowledge for officials' related to the values and priorities of residents (p. 361). He finds that officials 'also gain very specific knowledge about where particular works and projects should be located, and whether they operate successfully or fail.' Residents, for their part, also 'gain substantial knowledge about where, and whether, public monies are appropriately spent, and about the detailed operations, success, and failures of city agencies' (p. 361). On the whole, he finds that participatory budgeting in Porto Alegre increases not only policy knowledge on the part of participants and elites but also justice and accountability in policy formulation (p. 362).

More recently, Thamy Pogrebinschi and David Samuels (2014) have identified another very clear connection between public participation and policy formulation in their examination of the impact of Brazil's National Public Policy Conferences (NPPC) on national legislation. Similar to participatory budgeting, NPPCs are open and ongoing processes in which citizens are involved in collective deliberations to determine policy priorities. These conferences begin at the municipal level with open public meetings, continue to the state level with elected delegates, and culminate at the national level, where delegates formulate policy recommendations. Pogrebinschi and Samuels's analysis focuses on conferences on public policies for women, food and nutritional security, and social assistance. As they write, these conferences can serve to introduce new issues to the policy agenda, 'calling attention to interests and opinions not captured by the electoral process and thus left underrepresented by the minimalist configuration of representative democracy' (Pogrebinschi & Samuels, 2014, p. 330). Moreover, they 'can change the way that government officials understand the nature of political problems and assess the costs and benefits of particular policies, and they can offer elected officials greater information about the potential impact different policy solutions might have on citizens' lives' (p. 330).

Pogrebinschi and Samuels conclude that there is a direct link between these conferences and proposed and developed national policies, and that this link is beneficial for the formulation of more informed and inclusive policy.

Other researchers have found more mixed results. These findings suggest that the purported benefits of deliberation may be overblown. Stewart Davidson and Stephen Elstub's (2014) survey of the literature on citizen engagement mechanisms in the UK notes that local governments and health authorities have been especially active in employing deliberative mechanisms, but also that many of these mechanisms have been criticized on multiple fronts. Citing David Price, they point out that Citizens' Juries and Deliberative Polls can exclude those with partisan interests and technical expertise (Davidson & Elstub, 2014, p. 375; cf. Price, 2000). In their words, experts and interest groups are involved in the process as advisors and witnesses 'but, crucially, they are selected by the organizers, which can compromise the inclusivity of the process' (Davidson & Elstub, 2014, p. 375). Quoting Graham Smith and Corinne Wales, they write that 'there is a danger that even before citizens are directly involved, issues, information and witnesses might be mobilized out of the process' (Davidson & Elstub, 2014, p. 375; cf. Smith & Wales, 2000, p. 58). Davidson and Elstub note that organizers 'also set the agenda and questions for discussion' and the commissioning authority can 'pick and choose which recommendations from the jury to accept' (p. 375). The implication is that these mechanisms are 'too easily co-opted' by government elites (p. 375). They cite Clare Delap's conclusion that because Citizens' Juries 'have been designed to feed into the actual decisions being taken by public bodies,' they are not 'led by citizens, in a truly bottom-up sense' (p. 375; cf. Delap, 2001, pp. 39–42). They also note the work of John Parkinson on two Citizens' Juries in the UK, in which he concludes that these forums have been reduced to focus groups (Davidson & Elstub, 2014, p. 375; cf. Parkinson, 2009). Davidson and Elstub's (2014) examination of the literature on participatory budgeting in the UK finds that the mechanism does not 'reproduce the more radical participatory and deliberative nature of the Latin American cases' (p. 377). Instead, participatory budgeting tends to be small scale, engage 'third sector organizations rather than individuals,' be 'stand alone rather than cyclical,' and be 'restricted by national targets and ring fenced budgets' (p. 377). They characterize participatory budgeting in the UK as 'participatory grant-making,' with money coming from central funds for specific geographical and policy areas, for third sector organizations to fund projects that they in turn deliver (p. 377).

Several other researchers find limitations to deliberative mechanisms. For example, Vibeke Normann Andersen and Kasper M. Hansen (2007) examine a Danish National Deliberative Poll on the single European currency. During this poll, the 364 participants engaged with each other and with experts in discussions about the implications of a single currency for Denmark and ultimately recommended that Denmark participate in a single currency. Andersen and Hansen find that the deliberation brought about considerable changes in political opinions, an increase in the level of knowledge, an improved ability to form reasoned opinions, and a mutual understanding on the subject matter. However, they also find that self-interest and domination persisted among the participants (Andersen & Hansen, 2007, p. 553). Similarly, Carolyn Hendriks (2006) examines the participation of interest organizations in citizen forums in four cases – two in Australia (one focusing on container deposit legislation and the other on gene technology) and two in Germany (one on consumer protection measures and the other on genetic diagnostic

technologies) – and finds that, although 'most decide to participate in or at least support citizen's deliberations,' their rationale for participating has little to do with the normative aims of public deliberation and much more to do with strategic gain (p. 573). They do so when there is an 'opportunity to improve public relations and promote trust, distribute information and market products, sell and legitimize expertise, or advocate for a particular cause' (p. 593). More troubling, Paul Maginn finds that the 'Dialogue with the City' initiative in Perth, Australia, was biased toward the government's political intentions. While it was structured to give the appearance of encouraging dialogue, it did not actually allow any of the participants to have an impact on policy (Maginn, 2007). Yannis Papadopoulos and Philippe Warin (2007) warn that these kinds of citizen engagement mechanisms can be sophisticated public-relations maneuvers by governments seeking to appear committed to public involvement in decision making.

As evidenced from this review, participatory deliberation can have the following salutary effects for policy formulation:

- Educative benefits: participatory deliberative mechanisms enable participants to better understand why they have taken a particular position and to modify their perspectives where reasons warrant. They also enable policy makers to better understand the perspectives of those who will be affected by their decisions. In addition, they have positive effects for public debate and discussion and can serve in providing balanced information on policy options to the broader public and electorate.
- Clear and stable policy preferences: participatory deliberative mechanisms enable participants to both clarify their preferences and to rank order them. Policy makers can more confidently act on the outputs of such mechanisms, knowing that these preferences are stable among participants and others who are adequately informed of the particular issue.
- Inclusive, just, and accountable policy: these mechanisms include a wider range of actors into policy processes and reveal a broader range of issues than is typical in non-participatory policy making. They enable participants to articulate publicly their justice claims, which may provide for greater accountability in ensuring that their interests are upheld by policy decisions.

However, because most deliberative democratic mechanisms (outside Brazil) tend not to substantively empower their participants, they can be manipulated to serve specific interests and reinforce existing power structures. They can serve to create illusions of democracy that perpetuate more elitist approaches to developing public policy (Johnson, 2015). Thus, in addition to questions posed at the outset of this chapter concerning whether public participation and deliberation help or hinder the development and selection of policy options, another question arises: How do we improve the odds that participatory and deliberative procedures are implemented in policy processes – especially those of policy formulation – to maximize their benefits and minimize risks?

A TURN TO THE CONTEXTUAL AND THE FUNCTIONAL

Two guiding principles may help researchers, practitioners, and policy makers assess if particular citizen engagement mechanisms benefit policy formulation. Each of these interrelated principles has one of two foci of analysis: the contextual and the functional. The first principle focuses on the particular policy context in which a deliberative mechanism is, or is to be, implemented. This principle calls for a context-specific clarification of both the normative objectives and strategic interests at stake and a determination of which are prevalent. The second principle focuses on the function of the mechanism in terms of its potential to influence, shape, or determine public policies – that is, its potential for democratic empowerment in the development and selection of policy options. As such, this principle entails an examination of the empowerment function of the mechanism to assess whether it serves a normative aim related to the ideal of deliberative democracy or a strategic aim related to the specific interests of the commissioning entity. These two principles are connected in a hypothesis that where normative objectives are prevalent, the greater the likelihood the mechanism will be substantively or influentially empowered. Conversely, where strategic interests are dominant, it is more likely that the mechanism will be empowering in an advisory capacity. As such, the mechanism produces advice that may or may not be taken by policy elites. While these basic principles may not capture countervailing nuances within a policy area that may affect the successes or failures of an engagement mechanism, they help direct the focus of analyses toward more comprehensive evaluations of exercises in participatory deliberation. Figure 12.1 provides a visual of this hypothesis.

Principle I: Context-specific clarification of objectives and interests

The first principle entails the in-depth investigation of the policy context to clarify key objectives and interests. Increasingly, researchers and theorists of participatory and deliberative democracy are calling for detailed contextual analyses. Michael Saward (2003) was a relatively early proponent of a context-specific approach to the study of democracy. As Davidson and Elstub (2014) write, he articulated a need 'to improve our understanding of the contextual factors which impact upon the institutionalization of citizen participation and deliberation' in light of 'the erosion of citizen support in advanced industrial democracies' (p. 368). More recently, Bryson et al. (2013) propose context-specific guidelines for designing public participations processes. As they write, participation processes 'must fit the context in which they are taking place' (p. 24). According to these researchers, the 'general context includes broad social, demographic, political, technological, physical, and other features and trends in an organization's environment' whereas the 'specific
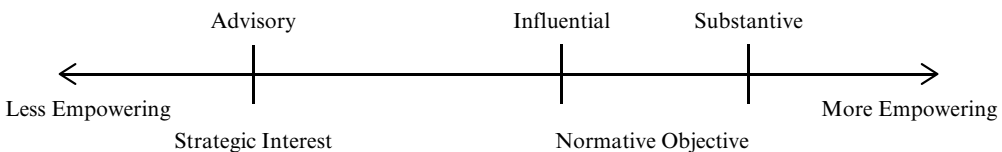
Figure 12.1   Forms of empowerment

context refers to those parts of the organization's task environment that are directly relevant to the achievement of the organization's goals, including key stakeholders, applicable mandates, resource availability, and so on' (p. 24). For these scholars it is important to look beyond techniques, procedures, and mechanisms to determine what these barriers are and whether or not they can be overcome.

Celina Souza (2007) finds that contextual factors play a large role in the success or failure of exercises in participatory budgeting. Based on a nationwide survey of Brazil documenting participatory budgeting in a number of jurisdictions, she argues that the success of participatory budgeting depends on 'a) the kind of political party that implements it; b) society's level of organization, mobilization and politicization; c) socio-economic features and population size; d) the administration's technical skills and management capacity; e) the government's commitment; f) the financial situation of the municipality; and g) the method adopted to establish the relationship between the government and the community' (p. 93). Leonardo Avritzer (2006), also focusing on Brazil, notes that two contextual factors contributed to creating a cultural and political context in which participatory budgeting could flourish. The first of these factors was the process of democratization. In the late 1970s to the mid 1980s, part of the general reaction to authoritarianism was the blossoming of neighborhood associations (p. 623). The second factor was the new constitution of 1988, which enshrined forms of and arenas for public participation. Avritzer writes that 'Porto Alegre stands out from the whole of the rest of Brazil in terms of the degree to which it took advantage of this legal infrastructure' (p. 623). He finds that the conditions accounting for the emergence of participatory budgeting in this city are unique to its characteristics. Based on her study of a municipal health council in Brazil, Andrea Cornwall (2008) also highlights the importance of examining the 'political culture/cultures of politics; the significance of contention and contestation; and party politics' (p. 525).

Recently, I engaged in a context-intensive study of four cases of what can be understood as participatory and deliberative democratic procedures in areas of Canadian public policy: participatory budgeting in social housing in Toronto; Deliberative Polls on energy policy in Nova Scotia; a national consultation process on nuclear waste management options; and stakeholder meetings and public consultations on official languages policy in Nunavut (Johnson, 2015).

In each case, elites genuinely tried to realize criteria of inclusion, equality, information, and reason toward the end of reaching a broad agreement or identifying a shared interest. Elites appeared to want to involve a broad range of participants in their decision-making processes. Participants were motivated and committed, and they developed informed and reasonable policy positions that transcended their own particular interests. Participants seemed to experience meaningful moments of collective deliberation. The procedures were repeated, sustained, or institutionalized, thus suggesting a shift in policy processes away from elite models and toward participatory and empowered approaches. Although some aspects were better than others in realizing deliberative democratic criteria, on the whole they all more or less fulfilled them. When examining the context, we see that both elites and participants sought clear objectives of establishing and partaking in procedures that would facilitate collective deliberation in the development of policy options and formulation of policy decisions.

However, this contextual focus also enables us to see that entrenched material interests

and dominant forms of decision making persisted, and that elite commitment to normative objectives waned against this backdrop. Indeed, in each case, there appears to have been an ethos of hierarchical decision making that prevented a transformation of relations between elites and their affected public toward greater democratic governance. Social housing in Toronto has historically been managed in terms of a landlord-tenant model; energy policy in Nova Scotia has always been driven by the provincial government in consultation with the province's primary utility; nuclear energy and nuclear waste management have, from the 1960s to the 1990s, been the policy domains of exclusively expert, industry, and government elites; and, before the existence of the territory of Nunavut, Inuit did not have explicit rights to participate in decision making concerning their social and cultural policies. Dominant actors in these policy areas may have been too habituated to functioning within the established decision-making processes to comprehend fully the normative implications of deliberative democratic approaches and the importance of substantive democratic empowerment. In this context, strategic interests appear to have won out over the ideals of deliberative democracy.

Principle II: Assessment of mechanism empowerment function

The second principle entails focusing on the function of mechanisms to better understand their consequences for empowering participants in policy formulation. As noted earlier in this chapter, deliberative democratic mechanisms tend to share certain features, such as procedural inclusion and equality, access to information, exchanging of reasons, and an orientation toward shared interests. But there are also important differences that have implications for participant empowerment, including in the method for participant selection, the number of participants, the timeframe for participatory deliberation, the level of publicity and press coverage, the relationship to formal decision making, and the kind of empowerment. Table 12.1 provides details for each of these categories that we typically see in specific citizen engagement mechanisms.

The relationship between the mechanism and formal decision-making channels is especially important for determining the ensuing form of empowerment. In many respects, this relationship is indicative of the elite commitment to the normative ends of participatory deliberation. It may be understood as a procedural manifestation of the strength of this commitment. Each variation in this relationship is associated with a different kind of empowerment that can be plotted on a continuum (see Figure 12.1). Thus, we see that stakeholder meetings, public consultations, Citizens' Juries, and Deliberative Polls have an indirect connection to formal decision-making channels. Given the loose connection, the commissioning body has discretion to act or not to act on the outputs of the events. Because participants in these mechanisms provide advice that is in no way binding, they are empowered only in an advisory capacity. Citizens' Assemblies and CIRs have a more direct connection to formal channels through either a referendum or public vote. Participants in these events collectively write statements containing recommendations on the given issue, which are disseminated to eligible voters. To the extent that participants inform or sway voters through these statements, they may be understood as being influentially empowered. Countervailing factors, such as partisan ad campaigns for or against a referendum issue or ballot measure, may attenuate this influence. Participatory budgeting and NPPCs have a direct connection to formal policy processes. On the whole, these

Table 12.1   Citizen engagement mechanisms and forms of empowerment

Citizen engagement mechanism	Participant selection method	Number of participants	Timeframe for deliberation	Publicity and press coverage	Relationship to formal decision making	Forms of empowerment
Stakeholder Meetings	Invitation	< 100	One day to several days and periodic	No	Indirect	Advisory empowerment
Public Consultations	Self-selection	> 100	Several days and periodic	Yes	Indirect	Advisory empowerment
Citizens' Juries	Random sample	~12–24	Several days and one-off	Yes	Indirect	Advisory empowerment
Deliberative Polls	Random sample	~100–500	Several days and one-off	Yes	Indirect	Advisory empowerment
Citizen Initiative Reviews	Random sample	~18–24	Several days and periodic	Yes	Direct connection to public vote	Influential empowerment
Citizens' Assemblies	Random sample	~100–150	Several weeks and one-off	Yes	Direct connection to referendum	Influential empowerment
Participatory Budgeting/ Public Policy Conferences	Self-selection	> 500	Ongoing	Yes	Direct connection to policy decisions	Substantive empowerment

forums feed directly into formal decision making and result in significant policy impacts. Insofar as they do, participants in these forums may be understood as substantively empowered. Again, there may be factors that impede empowerment, such as the size of the budget for allocation or the scope of the policy issue. But the aim of this principle is to focus on the typical empowerment function of a mechanism and then to investigate whether this function is occurring and why it may not be.

A clear understanding of both the context and function of citizen engagement mechanisms may help to make assessments about their suitability for particular contexts and their likelihood of contributing to policy formulation. If a commissioning entity is merely seeking advice from the public or particular stakeholders, a mechanism that is at a distance from the formal decision-making process is appropriate. Alternatively, if it seeks to provide the broader public with carefully reasoned perspectives on an issue that will be put to a public vote, a mechanism that yields balanced citizen statements and voters' pamphlets may be most effective. Finally, if the aim is to genuinely shift decision-making power in the development of policy either to the public as a whole or to affected publics, participatory budgeting or public policy conferences may be the most appropriate mechanisms. Where normative objectives related to ideals of participatory deliberation are dominant, it is probable that the mechanism will be substantively or influentially empowering and result in a fuller range of benefits – that is, educating participants, policy makers, and the general public, clarifying and stabilizing policy preference, and increasing inclusion, justice, and accountability – in policy development. Where strategic interests dominate the policy area, there will likely be a greater proclivity for a mechanism that is empowering in an advisory capacity and result in partial benefits – that is, educative benefits for participants.

CONCLUSION

Ideally, participatory deliberation will increase the likelihood that collectively binding decisions are just and legitimate and that citizens are democratically empowered. From a normative perspective, many areas of public policy are too important to not include citizens in processes of formulating policies (as well as implementing and assessing them). Citizen engagement involving the exchange of information and reasons toward generally acceptable agreements may be the only way to ensure that we authorize and consent to the decisions, policies, and laws that bind us. From an empirical perspective, deliberative democratic procedures can and are being realized in many areas of public policy. On the whole, the normative and empirical literature reveals that participatory and deliberative citizen engagement mechanisms can have benefits for policy formulation. In particular, they can help participants understand why they hold a particular policy position, and whether or not their reasoning is sound. They can also provide policy elites with information about policy preferences that have undergone consideration, deliberation, and clarification, and are thus more stable. Moreover, their outputs can serve in the development of more inclusive, just, and accountable policy. But these procedures can also be manipulated to serve specific interests. Contextual and functional analysis of exercises in participatory deliberation may help researchers, practitioners, and policy makers determine what mechanism is most suitable for a particular context. Although participation and deliberation in policy

processes appear to be on the rise, the success of these initiatives depends both on the kind of objectives that are prevalent and the type of mechanisms that are implemented.

NOTES

1. The chapter draws from and builds on Genevieve Fuji Johnson, *Democratic Illusion: Deliberative Democracy in Canadian Public Policy* (Toronto: University of Toronto Press, 2015).
2. Deliberative Polls is a registered trademark of James Fishkin. Any fees from the trademark are used to support research at the Center for Deliberative Democracy, University of Stanford. The trademark offers a basis for quality control for projects that use the term.
3. The focus of this chapter is on participatory and deliberative citizen engagement, that is, citizen engagement that involves some form of reciprocity in the sharing of considerations and exchanging of reason. It therefore does not include a discussion of one-way consultation processes.
4. Thus, certain forms of non-deliberative public participation, as well as non-participatory deliberation, are excluded from my consideration. For example, protest and demonstration, and likewise voting in elections or referendums, are participatory but can be non-deliberative. Similarly, hypothetical mechanisms such as John Rawls's original position or Jürgen Habermas's ideal speech situation are deliberative but non-participatory.
5. This chapter employs 'citizen' in the same way as Fung, who writes, by citizen, 'I do not mean to indicate individuals who possess the legal status of formal citizenship but rather individuals who possess the political standing to exercise voice or give consent over public decisions that oblige or affect them.' See Fung (2006, p. 74).
6. For the classics in deliberative democratic theory, see Seyla Benhabib (1996), James Bohman and William Rehg (1997), Simone Chambers (1996), Joshua Cohen (1996, 1997), John S. Dryzek (1990, 2000), Samuel Freeman (2000), Amy Gutmann and Dennis Thompson (1996, 2000), Jürgen Habermas (1995), Stephen Macedo (1999) and John Parkinson and Jane Mansbridge (2012).
7. See also John S. Dryzek and Simon Niemeyer (2006).
8. See also Cass Sunstein (1997) and Jorge Valadez (2001).
9. http://cdd.stanford.edu. See also James Fishkin and Cynthia Farrar (2005), Fishkin (2011) and Cynthia Farrar et al. (2010).
10. See also Amy Lang (2007) and Mark E. Warren and Hilary Pearse (2008).
11. For a more detailed account, see Rebecca Neaera Abers (1998, 2000) and Gianpaolo Baiochi (2003).
12. See Tarso Genro and Ubiritan de Souza (1997) and L. Fedozzi (2001), cited in Novy and Leubolt (2005).

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PART IV

POLICY ADVICE AND THE POLICY FORMULATION PROCESS

13. Policy advice and policy advisory systems in policy formulation[1]
Jonathan Craft and Michael Howlett

INTRODUCTION

The nature and sources of policy advice received by decision-makers in the policy formulation process are subjects that have received their fair share of scholarly attention. Many journals and specialized publications exist on these topics and specialized graduate schools exist in most countries with the aim of training policy analysts to provide better advice to decision-makers based on their findings (Banfield, 1980; Geva-May & Maslove, 2007; Jann, 1991; Tribe, 1972). Studies have examined hundreds of case studies of policy-making and policy formulation in multiple countries (Durning & Osama, 1994; Fischer, 2003) and many texts chronicle various policy analytical techniques expected to be used in the provision of policy advice (Banfield, 1980; Weimer & Vining, 2004). Yet surprisingly little systematic thinking exists about this crucial component and stage of the policy-making process and many findings remain anecdotal and their pedagogical value suspect (Howlett et al., 2009).

One problem with the early literature on the subject was that many past examinations of policy advice focused on specific sets of policy advisory actors – such as Meltsner's (1975, 1976, 1979) work on the policy analysis function of bureaucracies – and attempted to assess their influence in isolation from that of other advisors (Dluhy, 1981). More recent empirical studies of 'policy supply' in countries such as the UK (Page & Jenkins, 2005), Australia (Weller & Stevens, 1998), New Zealand (Boston et al., 1996), the Netherlands (Hoppe & Jeliazkova, 2006), France (Rochet, 2004), Germany (Fleischer, 2009), Canada (Howlett & Newman, 2010) and others, however, all emphasized the different sources and configurations of advisory actors and influence found in policy formulation in those countries (see also Glynn et al., 2003; Mayer et al., 2004). This led to modifications in older modes of thinking about policy formulation and policy advice processes. In order to better understand these cross-national and cross-sectoral variations, scholarly attention turned in the mid 1990s to the theorization and explanation of the concept of a 'policy advisory system'; that is, an interlocking set of actors, with a unique configuration in each sector and jurisdiction, who provided information, knowledge and recommendations for action to policy-makers (Halligan, 1995).

Such policy advisory systems are now acknowledged to be key parts of the working behaviour of governments as they go about their policy formulation and governance activities (Plowden, 1987; Seymour-Ure, 1987; Weaver, 2002). Accurately describing and understanding the nature of these systems is important for comparative policy and public administration and management research, as are considerations of content and methodologies for the classification and assessment of advisory system actors (MacRae & Whittington, 1997).

Despite several decades of examination, however, a significant research agenda still exists in this area (Howlett & Wellstead, 2009; James & Jorgensen, 2009). Little is known about the non-governmental components of policy advisory systems in most countries, for example (Hird, 2005), except to note the general weakness of prominent actors in some systems – like think tanks and research institutes in many jurisdictions (Abelson, 2007; Cross, 2007; McGann & Johnson, 2005; Murray, 2007; Smith, 1977; Stone & Denham, 2004; Stritch, 2007). And even less is known about aspects such as the growing legion of consultants who work for governments in the 'invisible public service' (Boston, 1994; Saint-Martin, 2005; Speers, 2007). However, conceptual problems continue to persist as well, and are the subject of this chapter.

One especially important conceptual issue with significant methodological and practical consequences has to do with considerations related to the sources and patterns of influence among advisory system actors (Fleischer, 2006; Halffman & Hoppe, 2005). This is the case whether policy advice is investigated from a broad perspective on knowledge utilization in government (Dunn, 2004; Peters & Barker, 1993; MacRae & Whittington, 1997; Webber, 1991) or more specifically in relation to the workings of policy formulation processes (James & Jorgensen, 2009; Scott & Baehler, 2010). That is, the personal and professional components of a policy advice supply system, along with their internal and external sourcing, can be expected to be combined in different ratios in different policy-making situations (Dluhy, 1981; Hawke, 1993; Prince, 1983; Rochet, 2004; Wollmann, 1989) with significant implications for the kinds of advice that are generated and which are listened to by governments. However, it is not clear in any given situation which actors are likely to exercise more influence and prevail over others in a formulation process. As argued below, a required step in the development of an improved understanding of the structure and functioning of policy advice systems is the articulation of a more robust conceptual depiction of their component parts than presently exists, along with the more detailed specification of the nature of their interactions in terms of the amount of influence that actors exercise in providing advice to decision-makers.

LOCATIONAL MODELS OF POLICY ADVICE SYSTEMS: THE PREVAILING INSIDER-OUTSIDER ORTHODOXY

Most existing conceptual models of policy advice systems associate different levels of influence with the location of advisors either inside or outside government (Halligan, 1995). These 'location-based' models have served as the starting point for investigations into, for example, the roles played by think tanks (Lindquist, 1998), public managers (Howlett, 2011) and others in policy formulation (Wilson, 2006).

This line of thinking underlay early efforts to classify the various components of advice-giving as a kind of marketplace for policy ideas and information often seen, for example, as comprising three separate locational components: a supply of policy advice; its demand on the part of decision-makers; and a set of brokers whose role it is to match supply and demand in any given conjuncture (Clark & Jones, 1999; Lindquist, 1998; Maloney et al., 1994; March et al., 2009). That is, advice systems were thought of as arrayed into three general 'sets' of analytical activities with participants linked to the positions actors hold in the 'market' for policy advice. The first set of actors was thought to comprise the

'proximate decision-makers' who act as consumers of policy analysis and advice – that is, those with actual authority to make policy decisions, including cabinets and executives as well as parliaments, legislatures and congresses, and senior administrators and officials delegated decision-making powers by those other bodies. The second set was composed of those 'knowledge producers' located in academia, statistical agencies and research institutes who provide the basic scientific, economic and social scientific data upon which analyses are often based and decisions made. And the third set was those 'knowledge brokers' who served as intermediaries between the knowledge generators and proximate decision-makers, repackaging data and information into a usable form (Lindvall, 2009; Sundquist, 1978). These included, among others, permanent specialized research staff inside government as well as their temporary equivalents in commissions and task forces, and a large group of non-governmental specialists associated with think tanks and interest groups. In these models, proximity to decision-makers equalled influence, with policy brokers playing a key role in formulation processes given their ability to 'translate' distant research results into usable forms of knowledge – policy alternatives and rationales for their selection – to be consumed by proximate decision-makers (Lindvall, 2009; Verschuere, 2009).

Halligan (1995) sought to improve on this early formulation by adding in the dimension of 'government control'. Viewing policy advice less as an exercise in knowledge utilization and more as a specific part of the larger policy process, specifically as part of the policy formulation stage of policy-making, Halligan (1998, p. 686) defined policy advice as 'covering analysis of problems and the proposing of solutions' and emphasized not only location vis-à-vis proximate decision-makers as a key determinant of influence but also how and to what degree governments were able to control actors located internally or externally to government who provided them counsel (Table 13.1). This model suggested that location was not the only factor which affected influence. That is, not only knowledge 'brokers' but other actors located in the external environment in which governments operated could exercise continued influence upon decision-makers, with the key consideration being not just geographical or organizational location but also the extent to which decision-makers could expect proffered advice to be more or less congruent with government aims and ambitions.

Although this model hinted at the key role played by 'content' in considerations of advisory influence, at the root of the model, however, was still the inside-outside dimension since governments, generally, were thought to be able to exercise more control over internal actors than external ones. Halligan noted in each case within the public service, within government and in the external environment, however, that some actors were more susceptible to government control than others and hence more likely to articulate advice that decision-makers would find to be acceptable; that is, matching the government's perceptions of best practices, feasibility and appropriate goals and means for achieving them. However, as Table 13.1 shows, in general each control category remains 'nested' within a locational one so that the extent of independence and autonomy enjoyed by an 'inside' government actor is considerably less than that enjoyed by an 'outside' actor whether or not that external actor is amenable to government direction.

These locational models and their insider-outsider logic are useful and help us to depict and understand many aspects of policy advice, the nature of advisory system members and their likely impact or influence on policy decision-making. As discussed below, however, simply understanding these locational variations, either with or without

Table 13.1   Locational model of policy advice system

Location	Government control	
	High	Low
Public service	Senior departmental policy advisors Central agency advisors/strategic policy units	Statutory appointments in public service
Internal to government	Political advisory systems ● Ministers' offices ● First ministers' offices Temporary advisory policy units Parliaments (e.g. a House of Commons)	Permanent advisory policy units Statutory authorities Legislatures in republican systems of government (e.g. US Congress)
External to government	Private sector/NGOs on contract Community organizations subject to government grants and appointments Federal international organizations	Trade unions, interest groups Community groups International communities and organizations

Source: Modified from Halligan (1995).

Halligan's 'control' dimension, is not enough to provide a clear understanding of the nature of influence in contemporary policy advisory systems. This is because traditional locational models of such systems based only upon proximity measures of influence gloss over the equally important question of 'influence over what?' – that is, about the content of advice provided by different actors – which has become a much more significant element of advice in its own right in recent years as more and different actors have entered into advisory system membership.

ADDING THE CONTENT DIMENSION TO LOCATIONAL MODELS OF POLICY ADVISORY SYSTEMS

Recent examinations of components of policy advisory systems such as political parties (Cross, 2007), the media (Murray, 2007) and partisan appointees (Connaughton, 2010b; Eichbaum & Shaw, 2010; OECD, 2011), among others, have underlined the limitations of locational models in being able to provide an exhaustive map of policy advice system types and a clear picture of how the various sources, types and components of policy advice fit together and operate (Howlett & Lindquist, 2004; Mayer et al., 2004). What is needed is a better model that links the provision of advice to larger patterns of changes in the behaviour of political decision-makers and knowledge suppliers that condition how policy advice is generated and deployed in different governance arrangements (Aberbach & Rockman, 1989; Bennett & McPhail, 1992; Bevir & Rhodes, 2001; Bevir et al., 2003; Howlett & Lindquist, 2004; Peled, 2002). Such a richer understanding of the structure and functioning of policy advisory systems can be obtained through the better specification of the second, 'content' dimension highlighted in Halligan's work and clarification of its relationship to locational considerations of influence.

A growing body of evidence has for some time pointed to this need to incorporate a

more detailed and nuanced sense of advice content to location-based models of advisory influence. The critique of locational models is both historical and definitional. On the one hand, while older models relied on a kind of 'vertical' policy advice landscape in which inside advisors had more influence than outside ones, the emergence of a more pluralized 'horizontal' advice-giving landscape than existed in earlier periods (Page, 2010; Page & Wright, 2007; Radin, 2000; Weller & Rhodes, 2001) has challenged any traditional monopoly of policy advice once held by such prominent inside actors as the public service.

Halligan's 'control' dimension can be seen as an attempt to get at this second dimension of influence – modelled as congruent or less congruent with government aims – but is not specific enough about the nature of the content itself. Explicitly adding the content dimension of policy advisory systems to earlier location-based models, however, adds specificity to those models by integrating a substantive component to many otherwise content-less early considerations of advisory influence. Taken together with locational measures it is possible to use this additional dimension to get a better sense not only of which actors are likely to influence governments but also about the likely subjects of that influence.

GOVERNANCE SHIFTS AND POLICY ADVICE: FROM 'SPEAKING TRUTH TO POWER' TO 'SHARING TRUTHS WITH MULTIPLE ACTORS'

But how should this content dimension be modelled? As authors such as Radin (2000), Prince (2007) and Parsons (2004), among others, have argued, the well-known older 'speaking truth to power' model of policy advice (Wildavsky, 1979) has given way in many policy-making circumstances to a more fluid, pluralized and polycentric advice-giving reality that has been characterized as 'sharing truth with many actors of influence' or 'weaving' policy knowledge (Maley, 2011; Parsons, 2004; Prince, 2007). This dispersed advisory capacity combines technical knowledge and political viewpoints in ways that differ from the way advice was generated, and conceived of, in early thinking on advisory systems based on producer-broker-consumer or autonomy-control considerations.

Studies in a range of countries have noted that government decision-makers now increasingly sit at the centre of a complex 'horizontal' web of policy advisors that includes both 'traditional' professional public service and political advisors in government as well as active and well-resourced non-governmental actors in NGOs, think tanks and other similar organizations, and less formal or professional forms of advice from colleagues, friends and relatives and members of the public and political parties, among others (Dobuzinskis et al., 2007; Eichbaum & Shaw, 2007; Maley, 2000; Peled, 2002). As Hajer has argued:

> When Wildavsky coined the phrase 'speaking truth to power,' he knew whom to address. The power was with the state and the state therefore was the addressee of policy analysis. Yet this is now less obvious. We might want to speak truth to power but whom do we speak to if political power is dispersed? States, transnational corporations (TNCs), consumers, non-governmental organizations (NGOs), the people? The media? With hindsight we can see how policy making and policy analysis was always conducted with an idea of a stable polity in mind. (2003, p. 182)

Following Prince (2007), the elements of the traditional and contemporary ideal-type models of advice-giving are set out in Table 13.2. The shifts in the nature of state-societal

Table 13.2   Two idealized models of policy advising

Elements	Speaking truth to power of ministers	Sharing truths with multiple actors of influence
Focus of policy-making	Departmental hierarchy and vertical portfolios	Interdepartmental and horizontal management of issues with external networks and policy communities
Background of senior career officials	Knowledgeable executives with policy sector expertise and history	Generalist managers with expertise in decision processes and systems
Locus of policy processes	Relatively self-contained within government, supplemented with advisory councils and Royal Commissions	Open to outside groups, research institutes, think tanks, consultants, pollsters and virtual centres
Minister/deputy minister relations	Strong partnership in preparing proposals with ministers, trusting and taking policy advice largely from officials	Shared partnership with ministers drawing ideas from officials, aides, consultants, lobbyists, think tanks, media
Nature of policy advice	Candid and confident advice to ministers given in a neutral and detached manner	Relatively more guarded advice given to ministers by officials in a more compliant or pre-ordained fashion
	Neutral competence	Responsive competence
Public profile of officials	Generally anonymous	More visible to groups, parliamentarians and media
Roles of officials in policy processes	Confidential advisors inside government and neutral observers outside government	Active participants in policy discussions inside and outside government
	Offering guidance to government decision-makers	Managing policy networks and perhaps building capacity of client

Source: Prince (2007, p. 179).

or governance relations and decision-making authority and responsiveness detailed in Table 13.2 have important consequences for thinking about the nature of influence in policy formulation and policy advisory activities.

The practical implications of such changes are obvious. As Anderson argued, for example, in the contemporary period 'a healthy policy-research community outside government can (now) play a vital role in enriching public understanding and debate of policy issues' and can serve as a natural complement to policy capacity within government (Anderson, 1996, p. 486). This view can be contrasted with Halligan's earlier admonition that:

> The conventional wisdom appears to be that a good advice system should consist of at least three basic elements within government: a stable and reliable in-house advisory service provided by professional public servants; political advice for the minister from a specialized political unit (generally the minister's office); and the availability of at least one third-opinion option from a specialized or central policy unit, which might be one of the main central agencies. (1995, p. 162)

Changes in contemporary governance arrangements thus speak to shifts in the patterns of policy advisory activity and interaction found in policy advisory systems at both the political and administrative levels, both internally and externally, which thinking about the nature and activities of policy advisory systems should take into account.

OPERATIONALIZING THE CONTENT DIMENSION OF POLICY ADVICE

As discussed above, while location-based models of policy advice provided a very clear and useful advance on earlier approaches that focused attention only upon individual, isolated sets of advisors or single locations of advice, they were largely silent on content dimensions. But as Peters and Barker (1993, p. 1) put it, if policy advice is conceived of as a means by which governments 'deliberately acquire, and passively receive . . . advice on decisions and policies which may be broadly called informative, objective or technical', then content becomes at least as important as location in determining the nature of the influence of both policy advice and policy advisors.

MOVING BEYOND THE 'TECHNICAL' VERSUS 'POLITICAL' POLICY ADVICE CONTENT DICHOTOMY

Early thinking about the content of policy advice often contrasted 'political' or partisan-ideological, value-based advice with more 'objective' or 'technical' advice and usually stressed the importance of augmenting the latter while ignoring or downplaying the former (Radin, 2000). Policy schools purporting to train professional policy advisors in government, for example, still typically provide instruction only on a range of qualitative and quantitative techniques that analysts are expected to use in providing technical advice to decision-makers about optimal strategies and outcomes to pursue in the resolution of public problems, downplaying or ignoring political or value-laden issues and concerns (Irwin, 2003; MacRae & Wilde, 1976; Patton & Sawicki, 1993; Weimer & Vining, 2004).

This 'positivist' or 'modern' approach to policy analysis dominated the field for decades (Radin, 2000) and often pre-supposed a sharp conceptual division between internal governmental advisors armed with technical knowledge and expertise and non-governmental actors with only non-technical skills and knowledge.[2] Although often implicit, such a 'political' versus 'technical' advisory dichotomy often underlay location models, with advice assumed to become more technical as it moved closer to proximate decision-makers so that external actors provided political advice and internal ones technical ideas and alternatives.

While it is debatable the degree to which such a strict separation of political and technical advice was ever true even in 'speaking truth to power' systems, it is definitely the case that the supply of technical advice is no longer, if it ever was, a monopoly of governments. Various external sources of policy advice have been found to be significant sources of substantive policy advisory content used by policy-makers to support existing policy positions or as sources of new advice (Bertelli & Wenger, 2009; McGann & Sabatini, 2011). Professional policy analysts, for example, are now employed not only by

government departments and agencies but also by advisory system members external to government, ranging from private sector consultants to experts in think tanks, universities, political parties and elsewhere who are quite capable of providing specific suggestions about factors such as the costs and administrative modalities of specific policy alternatives (Boston, 1994; Boston et al., 1996; Rhodes et al., 2010).

It is also the case that many advisors both internal and external to governments, today and in past years, provide political advice to decision-makers ranging from personal opinion and experience about public opinion and key stakeholder group attitudes and beliefs to explicit partisan electoral advice. Although often ignored in early accounts, this kind of advice has always been provided by prominent traditional inside actors such as political advisors attached to elected officials and political parties (Connaughton, 2010a; Eichbaum & Shaw, 2007, 2008; Leal & Hess, 2004) as well as from public consultation and stakeholder interventions (Bingham et al., 2005; Edelenbos & Klijn, 2005; Pierre, 1998). While Westminster systems pride themselves on retaining at least part of this political-administrative dichotomy in the form of conventions about civil service neutrality in their specific 'civil service bargain' (Hondeghem, 2011; Hood, 2002; Salomonsen & Knudsen, 2011; Uhr & Mackay, 1996), even in this strong case, this convention has been eroded. In their study of New Zealand policy advice, for example, Eichbaum and Shaw (2008, p. 343) noted many instances of 'procedural politicization' that were 'intended to or ha[ve] the effect of constraining the capacity of public servants to furnish ministers with (technical) advice in a free, frank, and fearless manner'. Such procedural politicization was manifested when a 'political' advisor 'intervenes in the relationship between a minister and his or her officials'. Alternatively, it is argued to occur (due to) 'conduct by ministerial advisers which is intended to or which has the effect of constraining the capacity of officials to tender free, frank, and fearless advice by intervening in the internal workings of a department' (Eichbaum & Shaw, 2008, p. 343). They also found many instances of 'substantive politicization', which dealt specifically with 'an action intended to, or having the effect of colouring the substance of officials' advice with partisan considerations' (Eichbaum & Shaw, 2008, pp. 343–4).

The increasingly pluralized and political nature of policy advice inputs underscores that while it is debatable that under the old 'speaking truth to power' model, policy advice had always been largely a bipartite relationship involving public servants and executive politicians, with career officials offering technical advice to cabinet ministers, this is certainly no longer the case (Jenkins-Smith, 1982; Kirp, 1992). Maley (2000, p. 453), for example, elaborated on the various policy roles for political advisors that may exist in addition to their 'in-house' policy work: 'Dunn suggests an important brokering role within the executive; Ryan detects a significant role in setting policy agendas; Halligan and Power [1992] refer to advisers "managing networks of political interaction".' Additional studies have also pointed to the role that 'political' advisors can play in the brokerage, coordination and integration of various endogenous and exogenous sources of policy advice to decision-makers (Dunn, 1997, pp. 93–7; Gains & Stoker, 2011; Maley, 2011; OECD, 2011).

Here, however, in the consideration of the theorization of policy advisory systems, it is important to note that these changes in governance practices do not just lead to a shift in the location of advice but also of its content. Even in Anglo-American Westminster-style political systems, the shift from the largely internal, technical, 'speaking truth' type of policy advising towards the diffuse and fragmented 'sharing of influence' approach

paints a picture of contemporary policy advising that not only features the pronounced influence of external or exogenous sources of technical and political advice but also the loss of whatever policy advisory monopoly or hegemony was once held or exercised by professional public service and advisors within government. The reduced utility of such distinctions when applied to other systems (that is, Napoleonic, Scandinavian) with alternative administrative traditions where politico-administrative divisions may not be as pronounced, may overlap or may be configured differently (Painter & Peters, 2010; Peters & Pierre, 2004) is even clearer. Moving beyond simple political-technical distinctions to a more robust content-based model of policy advice is thus essential in order to improve the generalizability of models of policy advisory systems.

MODELLING THE CONTENT OF POLICY ADVICE IN CONTEMPORARY GOVERNANCE ARRANGEMENTS

In the context of a more porous, fluid and diversified advisory landscape, the inside versus outside distinction lying at the base of traditional conceptions of advice systems has been thoroughly weakened. But what is the alternative?

Explicitly dealing with the content dimensions of policy advice, Connaughton (2010a, 2010b), working from within the empirics of the Irish context, developed a set of what she terms 'role perceptions' – Expert, Partisan, Coordinator and Minder – for classification of general advisory roles (Figure 13.1). While these distinctions reinvent some aspects of discredited politics versus administration dichotomies, her analysis of the activities of these different actors is based, significantly, not upon whether advice was partisan or administrative but rather whether it involved substantive on-the-ground policy formulation/implementation activities – ranging from 'policy advice' to 'policy steering' – or more procedural 'communications' functions, which could be 'technical/managerial' or 'political' in nature.

This notion of distinguishing between content in terms of substance and process fits well with the findings of other studies assessing the 'politicization of policy-making' such
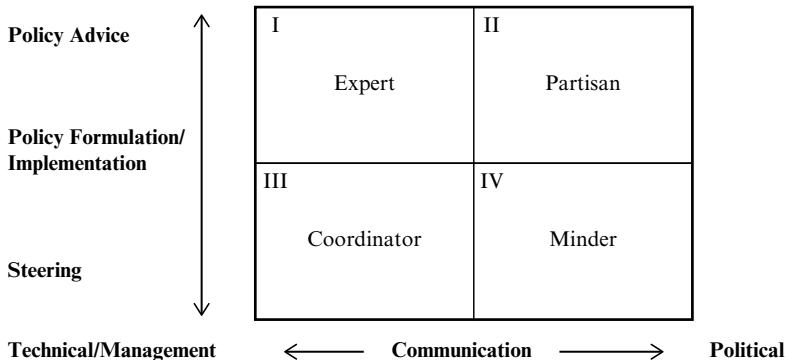
Source: Connaughton (2010b, p. 351).

Figure 13.1 Connaughton's configuration of advisor roles

Table 13.3   Comparing 'cold' and 'hot' advice

Long-term/anticipatory Or 'cold' advice	Short-term/reactive Or 'hot' advice
Information-based	Opinion/ideology-based
Research used	Relies on fragmented information, gossip
Independent/neutral and problem-solving	Partisan/biased and about winning
Long-term	Short-term
Proactive and anticipatory	Reactive/crisis-driven
Strategic and wide range/systematic	Single issue
Idealistic	Pragmatic
Public interest focus	Electoral gain-oriented
Open processes	Secret/deal-making
Objective clarity	Ambiguity/overlapping
Seek/propose best solution	Consensus solution

Source: Adapted from Prasser (2006b).

as Eichbaum and Shaw (2008). The Connaughton model has limitations, however, principally by failing to provide mutually exclusive differentiation of the concepts of substance and process. Substantive advisory activity falling in the 'expert' category could simultaneously be 'partisan' or procedural types of policy; advisory 'roles' such as 'coordinator' could arguably be both expert and partisan in nature, for example.

Prasser, in his studies of Royal Commissions in Australia (2006a), and more generally (2006b), suggested that distinguishing between 'political' and 'non-political' content of policy advice is less insightful than distinguishing between the content of the advice provided. Here he distinguished between what he termed 'cold' (typically long-term and proactive) versus 'hot' (short-term and crisis-driven) types of advice (Table 13.3). Although Prasser noted some overlaps between these categories along the old 'politics' versus 'administration' divides, the general situation he describes is one in which neither partisan nor civil service actors have an exclusive monopoly on one type of advice.

Such 'hot' versus 'cold' content dimensions can be usefully applied to various non-governmental sources of policy advice that may be seeking to influence policy-makers on a short- or long-term basis. Moreover, they further align considerations of policy advisory activity with specific content considerations rather than role-based classifications that continue to be tied to locational factors and/or traditional dichotomies such as technical versus political distinctions. Although they interpret content slightly differently, Prasser's distinction between short-term 'hot' and longer-term 'cold' advice can be combined with Connaughton and Eichbaum and Shaw's distinction between substantive and procedural advice to generate an improved model of policy advisory system structure and behaviour. Together, they can be used to differentiate between types of policy advice content in a way that is more useful for the conceptualization of the activities of policy advice system actors than older locational models (Table 13.4).

Such a model as that set out in Table 13.4 provides a more robust understanding of the influence dimension of policy advice-giving as content distinctions replace purely locational considerations in new governance arrangements. While location may be closely aligned

Table 13.4   Policy advisory system members organized by policy content

	Short-term/reactive	Long-term/anticipatory
Procedural	*Pure political and policy process advice* *Traditional* Political parties, parliaments and legislative committees (House of Commons, Congress); regulatory agencies *As well as* Internal as well as external political advisors, interest groups; lobbyists; mid-level public service policy analysts and policy managers; pollsters	*Medium to long-term policy steering advice* *Traditional* Deputy ministers, central agencies/executives; Royal Commissions; judicial bodies *As well as* Agencies, boards and commissions; crown corporations; international organizations (e.g. OECD, ILO, UN)
Substantive	*Short-term crisis and fire-fighting advice* *Traditional* Political peers (e.g. cabinet); executive office political staffs *As well as* Expanded ministerial/congressional political staffs; cabinet and cabinet committees; external crisis managers/consultants; political strategists; pollsters; community organizations/NGOs; lobbyists; media	*Evidence-based policy-making* *Traditional* Statistical agencies/department; senior departmental policy advisors; strategic policy unit; Royal Commissions *As well as* Think tanks; scientific and academic advisors; open data citizen engagement-driven policy initiatives/Web 2.0; blue ribbon panels

Source: Craft and Howlett (2012, p. 91).

with content in some such arrangements – as was the case historically in Westminster-style systems based on sharp political-administrative distinctions – this is not always the case. While purely locational models may help to capture some significant developments such as the growth in the exogenous sources of advice to government proper in contemporary governance situations, they do not help, as do content-based models, to capture the idea that the kinds of advice provided by both civil servants and non-governmental actors have also changed and, more to the point, that these changes represent changes in influence.

CONCLUSION

Policy advisory systems exist in all jurisdictions and are an important part of the working behaviour of governments as they go about their policy and governance activities (Plowden, 1987). Understanding the nature of these systems is important for comparative policy and public administration and management research.

Replacing existing location models with content-based ones generates a significant

improvement in the ability of models of policy advisory systems to more accurately depict and categorize policy advice system structure and behaviour, and to understand the role played by different policy actors and the kinds of advice provided to governments by different advisory systems in contemporary circumstances.

While locational models have been useful in the past in some jurisdictions where the location and content of policy advice have overlapped – as was the case historically in many countries featuring strong political-administrative organizational dichotomies – their usefulness has waned along with the strength of those divisions, as discussed above. Although they have helped us to depict and understand aspects of the shift in location of advice from policy professionals to outside actors occasioned by changes in governance practices, many of the locational models of influence in themselves provide few insights into the effects that changes in governance modes have occasioned in many jurisdictions in the contemporary era.

This is because most locational models of policy advisory systems do not deal explicitly with the content of policy advice but rather implicitly endorse a 'political versus administrative' or 'technical versus partisan' dichotomous logic of the content and influence of policy advice. Locational models present these two types of advice as discrete and separate within specific kinds of organizational actors.

As Weller (1987, p. 149) noted long ago, such divisions along administrative and political lines are typical in early thinking related to advice-giving, since, as noted above, political advice is often not considered 'policy' advice at all:

> by 'policy' is usually meant technical and professional alternatives or the outcomes of 'objective' or 'rational' analysis. 'Political' is (then) taken to refer to consideration of the likely electoral or media consequences of a course of action. The former is seen as substantive while the other is often regarded as more self-interested.

In the contemporary era, however, the juxtaposition of content and location is no longer justified, if it ever was. Not only governance studies but also studies of the behaviour of specific advisory system actors such as appointed partisan political advisors, for example, have highlighted the irrelevance of these older political versus administrative distinctions. Even in the 'speaking truth to power' era, Walter (1986) confirmed that policy advisors often extended advice on political options and 'paid attention' to the policy agenda, often acting as policy 'mobilizers' in the face of policy vacuum or playing a 'catalyst' role in activating a policy process (Walter, 1986, pp. 152–4). Later scholars such as Dunn (1997, pp. 78–93) found that 'political' advisors played a role in shaping policy through overseeing the policy development process, providing direction, evaluating policy proposals and monitoring implementation.

Examining policy advice systems in terms of the content of advice provides a more useful conceptual frame in which to understand these effects and the nature of advisory systems in general. That is, the shift of content of inside and outside actors away from the 'speaking truth to power' perspective of the provision of 'objective' policy advice by insiders set out by Prince (2007) is revealing. Adding the content dimension to policy advisory systems in the form of a focus upon their substantive versus procedural and 'hot' versus 'cold' dimensions adds the specificity missing in locational model considerations of influence. And it improves on earlier models imbued with an implicit dichotomous 'politics

versus administration' differentiation by categorizing policy advice more precisely as it relates to either substance or processes of policy-making, and to its short-term versus long-term nature (Svara, 2006).[3]

Of course this raises the question of how, exactly, content, influence and location have been linked in specific national and sectoral advisory systems and historical time periods above and beyond the general transition from old to new governance arrangements cited here. While this is a subject for future research, several interesting hypotheses relate to the locational and content dimensions of policy advice in different governance systems that future comparative formulation studies can test. These include the possibility that in bilateral 'speaking truth to power' systems in which internal public service advice sources dominate, policy advice becomes increasingly evidence-based as one moves closer to policy decision-makers and less evidence-based as one moves further away. Or, conversely, that in more contested, pluralized and differentiated policy advice landscapes with various endogenous and exogenous advice sources, advice becomes less technical the closer it moves to government and more technical the further it moves away.

Such patterns would remain invisible when only locational criteria are taken into account in modelling policy advisory system structure and behaviour. When content is added in, however, it greatly enriches the concept and the models used to describe it. Among other things, it brings studies of policy advice and policy formulation into closer proximity to studies of governance shifts.[4] Adding a content dimension to older locational models helps show that as governments have moved away from command and control modes of governing towards the embrace of collaborative, interactive and networked models of governance and policy-making, the nature of policy advice and policy formulation also changes (Scott, 2005). In such contexts, locational models of policy advisory systems predicated on government control as a key dimension of the analysis of policy formulation require reconsideration.

NOTES

1. This chapter was originally published as Jonathan Craft and Michael Howlett (2012), 'Policy formulation, governance shifts and policy influence', *Journal of Public Policy*, **32**(2), 79–98. Permission to reprint has been waived by Cambridge University Press as the journal article's author is co-editor of this volume.
2. The extent to which this information is used and to what extent it can be considered 'objective' and 'expert' is, of course, a continuing controversy in the policy sciences. See, for example, Rein and White (1977) and Lindblom and Cohen (1979), and the very similar arguments made two decades later in Shulock (1999) and Adams (2004).
3. Various studies employing knowledge utilization and rational choice-based approaches have for some time noted the structural, organizational and utility implications of information related to asymmetries, efficiencies and overall levels of influence (Calvert, 1985; Esterling, 2004; Krishna & Morgan, 2001). Greater emphasis on content considerations may serve to further studies using such approaches as well.
4. Various authors have explored potential definitions and key debates related to the use of the term 'governance' (for example, Kjaer, 2004; Pierre, 2000; Rhodes, 2007).

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14. The organization of policy formulation
Craig Matheson

INTRODUCTION

This chapter outlines a conceptual framework for analysing the organization of policy formulation. Policy formulation has important organizational dimensions. As Colebatch (2002, p. 73) observes: 'Policy is above all else about organization. "Policy", "politics" and "management" are all labels for ways of steering organization.' He argues that although the study of public policy has been grounded in perceptions of the way organizations work, the organizational dimension of public policy is often not specifically addressed in the policy literature. Elmore (1978), O'Toole (1986), Hill and Hupe (2002), Barrett (2004) and Hill (2005) likewise argue that public policy has an important organizational dimension and that the findings of organizational theory need to be incorporated into public policy studies. This chapter seeks to do this by using a framework drawn from the ideas of one of the world's leading writers on organizations, namely, Henry Mintzberg. It identifies two dimensions of organizational structure – centralization and standardization – and places these two dimensions cross-wise to yield a matrix of four types of organizational structure. These structures constitute different ways of organizing policy formulation. The chapter uses the Australian government and the Australian Public Service (APS) to illustrate these four organizational types. Mintzberg argues that each of these four organizational structures is associated with a particular mode of strategy-making in business. The term 'strategy' as used by Mintzberg is equivalent to what the literature on politics and government calls 'policy'.

Mintzberg (1979) argues that an organization's structures are shaped by four broad categories of contingency factors: organizational, technical, environmental and power. Organizational structures and the contingency factors that shape them fall into seven natural clusters or 'configurations'. These are: (1) the simple structure with autocratic and charismatic variants; (2) the machine bureaucracy; (3) the professional bureaucracy; (4) the diversified organization; (5) the innovative organization (which I relabel the 'network organization'); (6) the political organization; and (7) the ideological organization. A different coordinating mechanism is dominant in each structural configuration and a different part of the organization plays the most important role. Mintzberg argues that the strategic apex, the middle line and the operating core comprise the three basic 'levels' of organizations. Mintzberg and Waters (1985) distinguish two broad modes of strategy-making: the deliberate and the emergent. In the deliberate mode, the formulation of strategy precedes its execution; in the emergent mode, the tasks of strategy formulation and execution are concurrent. Each of these modes of strategy-making is associated with particular structural configurations and contingency factors.

Mintzberg's theory is a contingency one since it sees the applicability of organiza-

	STABLE	DYNAMIC
COMPLEX	**DECENTRALIZED BUREAUCRATIC** *Low centralization, High standardization* *Structures:* Professional bureaucracy Ideological organization *Policy style:* Deliberate/Emergent & Bottom up *Examples:* Professionals & policy experts Reliance on expert advice	**DECENTRALIZED ORGANIC** *Low centralization, Low standardization* *Structures:* Network organization Political organization *Policy style:* Emergent & Bottom up *Examples:* Policy networks & communities Collaboration & negotiation
SIMPLE	**CENTRALIZED BUREAUCRATIC** *High centralization, High standardization* *Structures:* Machine bureaucracy Diversified organization *Policy style:* Deliberate & Top down *Examples:* Program managers Policy maintenance	**CENTRALIZED ORGANIC** *High centralization, Low standardization* *Structures:* Simple structure (Autocratic & Charismatic) *Policy style:* Emergent & Top down *Examples:* Political leaders & their staff Crisis management & change

Figure 14.1   Four categories of organizational structure and their environments

tional structures and strategies as being contingent rather than universal. Many students of public policy likewise argue that we need to pay attention to the role of various contingency factors and in particular, to the nature of the policy environment, in order to account for variations in the policy process (Berman, 1980; Hogwood & Gunn, 1984; Lewis & Wallace, 1984; Rothstein, 1998; Hill & Hupe, 2002; Hill, 2005; Colebatch, 2006b). Figure 14.1 locates the seven organizational structures identified by Mintzberg within a matrix that is formed by the intersection of two dimensions of organizational structure, namely, standardization and centralization. This figure is based on a two-dimensional matrix constructed by Mintzberg (1979, p. 286).

The centralization dimension underlies the difference between centralized and decentralized structures whereas the standardization dimension underlies the difference between bureaucratic and organic structures. Within each cell of the matrix we encounter both a particular category of organizational structure and a particular policy style. Such structural categories and styles correspond to particular environments. Stable environments favour bureaucratic structures whereas dynamic environments favour organic structures. Simple environments favour centralized structures whereas complex environments favour decentralized structures. This is because understanding complexity requires managers to delegate the power to make decisions to those who possess expert knowledge. Mintzberg constructed his matrix in order to explain organizational structures. What defines an organization for Mintzberg is not the presence of authority structures and clearly defined organizational boundaries but the presence of a division of

labour and coordinating mechanisms. Defined in these terms, political systems are also organizations since they are structurally differentiated and possess different methods of coordination. I shall now outline the structures and styles that are characteristic of each organizational type starting on the bottom left with the 'centralized bureaucratic' cell.

CENTRALIZED BUREAUCRATIC

In this cell the environment is simple and stable. This favours a centralized and standardized structure that Mintzberg calls centralized bureaucratic. Mintzberg identifies two variants of this structure: the machine bureaucracy and the diversified organization. The former relies on behaviour formalization whereas the latter relies on performance control. Mintzberg argues that strategy-making within centralized bureaucratic organizations is a top-down affair with a heavy emphasis on action planning. Unique to this structure is a sharp division between formulation and implementation in strategy-making. The strategic apex formulates and the middle line and operating core implement. Such a 'top-down' model of implementation suits simple and stable environments. Colebatch (2006a) calls this the 'authoritative choice' paradigm of the policy process. This sees policy as consisting of the choices that are made by those in authority. Such choices are made following a process of analysis and are implemented by means of planning. Policy implementation frequently exemplifies this model, especially when programs are familiar and well tested. In such instances decisions are standardized through the use of rules and the tasks of policy formulation and implementation are sharply divided. For example, street-level bureaucrats typically see policy as being something over which they have little control (Yeatman, 1998). Sanders (1985), Maconachie (1992) and Tsokhas (1996) likewise report that regulations and hierarchical controls strictly limit the discretion of street-level bureaucrats. Within the Taxation Office 90 per cent of SES (Senior Executive Service) officers reported a high level of participation in decision-making compared to only 19 per cent of those at the most junior levels (Jans & McMahon, 1988). Senior officers in the Australian Public Service (APS) are more likely than junior officers to participate in establishing goals, to be satisfied with their involvement in decisions that affect their work and to agree that changes are made in response to their suggestions (MAB-MIAC, 1992).

Formulating policy typically involves setting goals. For example, APS staff engaged in policy work are more likely to report that they participate in goal setting and that changes are made in response to their suggestions than those engaged in other types of work (MAB-MIAC, 1992). Program delivery agencies are highly bureaucratic. In a survey of Taxation Office staff, Jans et al. (1989) found that more than half of those sampled saw the Tax culture in 'mechanistic/bureaucratic' terms with only 20 per cent seeing the organization in 'organic' terms. Even departments such as the Treasury, whose main task is to provide policy advice, possess bureaucratic structures since they exhibit narrow spans of control, many levels of authority, centralized decision-making, formal rules, vertical communications, and a wide range of skill levels and position rather than knowledge-based authority (Weller & Cutt, 1976). Mintzberg (1979) notes that government organizations are extensively formalized since they must treat people fairly and be publicly accountable.

The APS is accordingly more formalized than private sector organizations (Matheson, 1997b).

Centralized bureaucratic configurations use three types of standardization: behaviour formalization, performance control and action planning. Behaviour formalization involves detailed job descriptions, instructions for specific tasks and rules that cover all situations. Mintzberg notes that rules are often collected into a 'policy manual' or the bible of the formal organization. Such policy manuals are most common within the operating core since the routine tasks that are performed here are more amenable to standardization. Mintzberg argues that machine bureaucracies seek stable environments so that they can engage in planning. For example, Pusey (1991) reports that SES officers in program departments pray for 'stability' and 'strong cabinet leadership', since this makes it easier for them to plan and to solve problems (p. 105). Where programs are long established we encounter what Hogwood and Gunn (1984) call 'policy maintenance'. In these instances behaviour is highly formalized. Even policy advising agencies can be highly formalized since much of the business of government is routine in nature. As Colebatch (2002) observes, officials do not simply give effect to the prior decisions of ministers or legislators and the driving force of government may be the routines of the bureaucracy rather than the policy preferences of ministers. Officials and ministers endorse this view (see Bailey, 1976; Hasluck, 1976; Weller & Grattan, 1981). As Dunsire (1978, p. 32) observes, a department is able to 'run by itself' needing only the occasional 'touch on the tiller' at the top in order to alter its course. The consequence of this is that a bureaucratic system without political leadership will continue to function. However, the decisions made within it will be subject to the logic internal to the organization rather than to publicly expressed policy preferences (Page, 1985). For example, department heads observed that under 'captive' ministers, initiatives were not taken and existing policies were simply continued but little more (Weller & Grattan, 1981, p. 80).

Action planning is an additional form of standardization that lies midway between behaviour formalization and performance control since it identifies the goals to be achieved and specifies the precise steps that should be taken to attain them. It occurs at all levels of the organizational hierarchy and is the counterpart of behaviour formalization for the non-routine activities. Examples of the latter within government are the implementation of new policies and programs. Mintzberg argues that in action planning the decisions made at the strategic apex set off ever-widening waves of implementation decisions as they flow down the hierarchy. Wilenski (1986) likewise observes that within APS agencies, plans are disaggregated into sub-plans at each level of the hierarchy and thereby become more specific in content. Survey data shows that senior officials are more likely to be involved in goal setting than junior officials (MAB-MIAC, 1992). Policy implementation in such instances exemplifies a 'top-down' process in which broad strategic directives are translated into operational tactics (Ham & Hill, 1984). This involves a process of 'pragmatization' in which general instructions are made more specific in content (Dunsire, 1978). For example, a senior official working in the Department of Education (cited in Birch, 1976) explained that in framing a program of assistance for isolated rural students, the department needed first to ascertain that the proposal was consistent with the government's overall policy objectives. For example, a program with a goal such as 'increasing access to education for isolated rural students' is consistent with a broad policy objective such as 'achieving social equity between urban and rural areas by improving rural facili-

ties and services'. After this task came what this official called the 'policy within policy' process, or the task of determining the precise details of the policy. An example would be deciding whether the scheme would apply to primary or secondary students or deciding how 'isolation' was to be defined.

An alternative form of standardization is performance control or the monitoring of the results of an activity. Performance control in organizations involves specifying goals. These are embodied in objectives, budgets and operating plans. Performance control systems comprise a linked hierarchy of objectives and sub-objectives and the monitoring of results. Overall objectives at the top give rise to sub-objectives, which in turn are elaborated into ever more detailed sub-objectives. Corresponding to this hierarchy of goals is a hierarchy of action plans (Mintzberg, 1979). For example, overall objectives at the top are linked to strategic plans while sub-objectives are linked to programs. Strategic plans form the basis for programs or specific projects which are in turn elaborated into a set of specific operating specifications. This is exemplified by the process of corporate planning conducted within APS agencies, since this involves specifying a hierarchy of linked goals that correspond to specific programs and sub-programs. Performance indicators are then used to assess the extent to which these goals have been attained. Historically, the APS has displayed what Keeling (1972) calls an 'administrative' culture, one in which decision-makers have sought to conform to rules rather than to attain results (Matheson, 1997b). The adoption of new public management within the APS since the 1980s has involved a shift from reliance on rules towards the use of performance control as a means of coordination.

DECENTRALIZED BUREAUCRATIC

In the top left-hand cell the environment is stable and complex. Stability enables decisions to be standardized while complexity requires that decisions be delegated to experts and hence that the organization is decentralized. In these situations the chief coordinating mechanism is either the standardization of skills through training or the standardization of norms through indoctrination. The former gives rise to 'professional bureaucracy' while the latter gives rise to the 'ideological organization'. Professional bureaucracy differs from machine bureaucracy inasmuch as it relies on professional training to coordinate activities rather than on rules and plans. Strategy-making in both professional bureaucracy and the ideological organization tends to be both deliberate and emergent in nature, deliberate from the viewpoint of the professional who creates the strategy but emergent from the viewpoint of the organization that employs the professional. Many studies have noted that where those who implement policy possess professional expertise or exercise discretion it is difficult to implement policy 'perfectly' from the top down. Lipsky (1980) noted this in his classic study of street-level bureaucracy. Policy here is partly deliberate, since there are programs for making decisions, for example, professional expertise or rules. In applying such programs, however, street-level bureaucrats must exercise discretion when dealing with complex issues. Policy can therefore emerge from the decisions that they take. For example, Sanders (1985) discovered that street-level bureaucrats were able to create policy from the bottom up when they dealt with unusual cases for which there were no rules or precedents.

This style of policy-making corresponds to what Colebatch (2006a) calls the 'social constructionist' perspective on the policy process, which emphasizes the importance of fields of knowledge and expertise in the social construction of policy issues. Another type of standardization is 'indoctrination' or the process in which people acquire organizational norms and ideology. Officials undergo indoctrination since organizations possess a culture or set of shared beliefs, values and norms. Such cultures are a means of standardizing decision-making. In these cases, the rules, categories, ongoing practices and interpretive frameworks that are acquired through training and experience provide the cognitive 'premises' for making decisions (Matheson, 1997a). For example, Whitwell (1986, pp. xi, 25) reports that 'every Treasury officer makes sense of reality through an interpretive framework' acquired through university study and departmental training. This framework consists of the 'often unarticulated, if not largely unconscious, assumptions made about the nature of economic agents and how the economy operates'. Foucault, for example, drew attention to 'mentalities of rule' or the ideas that shape and underpin public policy. Colebatch (2002) likewise notes that different occupations make sense of issues in different ways. Governments in Australia often seek advice from experts such as academics and consultants and such experts exemplify the professional bureaucratic organizational type.

Ministers and senior officials can control their subordinates by shaping their cognitive premises. An example is the phenomenon of 'anticipated reactions'. As Page (1985) notes, the importance of hierarchy in organizations does not lie in the ability to trace decisions to the top, but in the capacity of superiors to review the work of subordinates. Subordinates will therefore seek to anticipate the reactions of their superiors when making decisions. This is a common occurrence within APS agencies (Matheson, 2000a). As Campbell and Halligan (1992) observe, senior bureaucrats in Canada, the UK and Australia often describe their job as being one in which they seek to anticipate the reactions of their superiors by 'knowing the minister's mind'. Senior officials in policy departments mainly provide advice to their superiors rather than execute commands. As Pusey (1991) observes, the 'pyramid' image of departments as being run by their ministers in a top-down fashion is misleading, since most policy-making is moving upwards from senior officials to the minister.

The reason why this occurs is because the minister cannot attend to every issue and because complex issues require expert knowledge. Much policy formulation is therefore delegated to senior officials by ministers. Insofar as this occurs the structure of the senior public service resembles that of a professional bureaucracy. As studies of the higher civil service in various countries have shown, while its work does not require detailed knowledge of a particular scientific discipline, its members are nonetheless usually experts in a particular subject area inasmuch as they 'know the "territory", the laws, the interested power centres and what has worked or failed and why' (Rosen, cited in Page, 1985, p. 29). Agency heads and ministers rely heavily on the advice that is provided by their subordinates when making decisions. Bailey (1976) maintains that heads of departments are more the recipients of advice, the providers of coordination and the wielders of influence than they are commanders. A departmental secretary likewise argues that his job should be like 'the conductor of an orchestra' rather than a disciplinarian (Wheeler, 1980, p. 166). As Dunsire (1978, p. 32) notes, the chief executive is more an 'arbitrator' than a 'drill sergeant' and the organization is not powered or energized by a constant stream of commands.

Accordingly, when ministers do exercise control, it is more by changing the rules within the organization rather than by taking decisions themselves. As one former minister has noted, a minister should seek to exert influence not by trying to decide everything but 'by orienting attitudes and pointing his organisation in a desired direction. The consequences of the reorientation will subsequently flow back to him as recommendations on details' (Morrison, 1977, p. 71).

Decisions can be standardized where the environment is stable since recurrent problems can be solved through using standard solutions. In dynamic environments or in those in which multiple actors use different criteria of rationality, standard solutions will not suffice. For example, Glezer (1982) identified two alternative approaches among participants in Australian industry policy: those of the 'solutionists' and the 'improvisers'. Whereas the former believed in long-term policy goals and plans to achieve them, the latter doubted that long-term policies could be maintained with any degree of coherence. Instead, pressures had to be coped with from day to day. These methods largely reflected functional position and, in particular, the extent of contact with interest groups. Politicians and those dealing with industry directly tended to be improvisers while agencies with the least direct responsibility for the administration of policy tended to be solutionists. The solutionists believed that policy problems could be solved top down and a priori by applying textbook economic theories (Warhurst, 1982; Pusey, 1991; Matheson, 1998). The improvisers by contrast doubted the wisdom of general policies that took no account of the conditions of specific industries, since each decision involved political as well as economic considerations (Glezer, 1982). As Loveday (1982) observes, any field of industrial policy is so broad that no government could have an overall policy for it. He argues that such policies are bound to be ad hoc, reactive to some degree and dependent on the activities and fortunes of non-governmental organizations. In such instances decisions are the product not of expertise but of a process of partisan mutual adjustment. For example, whereas in industrial relations and industry policy the level of interest group involvement is high, in fiscal policy it is low (Matthews, 1988). Departments that manage fiscal policy, such as Treasury and Finance, accordingly exhibit a doctrinaire approach to policy issues rather than political pragmatism (Weller & Cutt, 1976; Whitwell, 1986; Bell, 1997). For example, SES officers interviewed by Pusey (1991) contrasted the abstracted 'purists' in Treasury and Finance with both the 'hands on' economists found 'at the coalface' in the program departments and the politically responsive 'crisis managers' located in the Department of Prime Minister and Cabinet (pp. 105, 92, 83). The 'purists' sought to apply standard solutions to policy issues whereas the economists in the program departments (who dealt with interest groups) and the officials in the Department of Prime Minister and Cabinet (who managed political crises) preferred to improvise by using ad hoc solutions.

DECENTRALIZED ORGANIC

In this cell the environment is complex and dynamic. Such a combination necessitates a decentralized organic structure. This is because complex environments necessitate the delegation of decisions to experts and because dynamic environments make it difficult to standardize decisions. There are two variants of the decentralized organic structure: the innovative (which I have relabelled the 'network') and the political. Within both of these

configurations the chief coordinating mechanism is mutual adjustment, which achieves the coordination of work by the simple process of informal communication. Examples of mutual adjustment include liaison positions, task forces and standing committees, integrating managers and matrix structures. Mutual adjustment is the preferred coordinating mechanism at the strategic apex since the environment here is complex and dynamic. We therefore find that the extent of bureaucratization within organizations varies inversely in accordance with organizational rank (Mintzberg, 1979). For example, SES officers in the Australian Taxation Office are more than twice as likely as the middle ranks to view their culture as being 'organic' rather than 'mechanistic' (Jans et al., 1989). As senior officials attest, decision-making at the topmost levels of departments is collegial rather than autocratic (see Bailey, 1976; Wheeler, 1980). Relations between ministers and senior officials are likewise characterized by collaboration rather than command and obedience (Matheson, 2000a).

The level of centralization is shaped not only by the degree of environmental complexity but also by various 'power factors'. In particular, it is shaped by the extent to which governments share power with other policy actors. Where governments share power, coordination occurs through mutual adjustment rather than through command. Shared power, complexity and interdependence among policy actors typify the process of policy formulation in Australia. Accordingly, this process relies extensively on such forms of mutual adjustment as committees, consultative procedures, coordinating agencies and informal, trust-based networks (Matheson, 2000a). We may accordingly contrast the 'top-down' methods of coordination, such as behaviour formalization, action planning and performance control, with the 'lateral' method of mutual adjustment. Colebatch (2002) labels these the 'vertical' and 'horizontal' dimensions of government, respectively. The vertical dimension comprises the relationships of authority that are present within government and in relationships between government and subordinate actors, whereas the horizontal dimension comprises the relationships of consultation, persuasion and bargaining that cut across departmental boundaries and that exist between different government agencies, different levels of government and between government and non-government actors. Within the vertical dimension, coordination occurs by means of command; within the horizontal dimension it occurs by means of mutual adjustment. For example, whereas machine bureaucracies seek to control their environment in order to implement their plans, network and political organizations seek to adapt to their environments. Mintzberg accordingly identifies an 'adaptive' mode of strategy-making that corresponds to these two configurations and which he contrasts with the 'planning' mode.

Many observers have similarly noted that the extent to which policy styles are directive or consultative reflects the power of the state vis-à-vis that of civil society (Richardson, 1982; Freeman, 1985; Vogel, 1986). For example, Atkinson and Coleman (1991) identify different patterns of policy networks or business-state interactions based on the relative power of the state and business. We can distinguish between 'strong' and 'weak' states on the basis of the level of power that they exercise over other social actors (Dyson, 1980). Policy sectors exhibit different levels of interest group involvement and accordingly exhibit different policy styles. May (1991), for example, argues that there is a continuum of political environments ranging from 'policies with publics' at one extreme to 'policies without publics' at the other. In the former case there are well-developed coalitions of interest groups surrounding particular issues whereas in the latter case there is limited

development of interest groups. In the case of policies without publics, policy choices are made within what appear to be apolitical environments in which decision-making is dominated by technocratic expert opinions. In such instances policy choices are the product of top-down directives from government rather than of consultation and negotiation with interest groups. By contrast, in the case of policies with publics, policy choices are more often the product of consultation and negotiation.

Where governments monopolize power, the policy style tends to be directive rather than consultative. For example, in social welfare policy interest group involvement is limited and clients are less powerful. Accordingly, social welfare departments are better able to implement policies in a top-down fashion than are non-welfare departments (Loveday, 1982; Davis et al., 1988; Pusey, 1991). By contrast, where governments share power with other policy actors, policy emerges from a process of mutual adjustment rather than from top-down edicts. Such situations are addressed by institutional approaches to implementation since these focus upon the interorganizational character of government problem solving. Policy outcomes here are the result of interactions among multiple actors. Institutional approaches accordingly focus on mechanisms used to achieve interorganizational harmony and cooperation (Ryan, 1995). Ryan (1996) notes, for example, that Australia's combination of a liberal democratic, pluralist political system with a small, resource-based, vulnerable economy implies that the cooperation of interest groups is crucial to successful implementation. Loveday (1982) similarly observes that the formulation and implementation of industry policy in Australia is a collaborative process involving officials, interest groups and firms rather than one in which parliament and the executive issue commands to other policy actors. Indeed, he argues that governments gain more from enlisting the voluntary cooperation of policy actors than from coercing them.

Mintzberg argues that within the decentralized organic configurations, the formulation-implementation dichotomy that is found in the machine bureaucracy loses its meaning, since strategy is not so much formulated consciously by individuals as formed implicitly by the decisions they make, one at a time. Strategies in these organic configurations evolve during the process of implementation and emerge after the fact, as a result of specific decisions. Mintzberg labels this the 'adaptive mode' of strategy-making. The 'negotiated order' model of implementation likewise sees policy as emerging from a process of bargaining and negotiation between semi-autonomous actors (Barrett, 2004). Scholars have used a variety of terms to refer to this 'adaptive mode' or 'negotiated order' model, including the policy-action continuum, the horizontal dimension, policy networks, governance, policy evolution and policy learning. Colebatch (2006a) labels this model the 'structured interaction' perspective on the policy process. Whereas the 'authoritative choice' paradigm sees policy as emerging from the intentions of government, the structured interaction perspective sees policy 'as emerging from a differentiated world, in which a range of participants, with different agendas and concerns, inside and outside government, interact in a variety of ways'. He notes that such a perspective is exemplified by theories that focus upon the role of policy communities and policy networks. Many writers have drawn attention to the rise of 'policy networks' as a means of policy coordination in modern states. Rhodes (1997, p. 219), for example, maintains that 'governance' or 'self-organizing, interorganizational networks' have emerged as a key governing structure alongside markets and hierarchies. These networks are characterized by an interdependence arising from the

need to exchange resources, continuing interactions between network members, game-like interactions rooted in trust and regulated by rules of the game and a significant degree of autonomy from the state. He maintains that 'If there is one phrase that captures the nature of networks management, it is "mutual adjustment".'

Within these policy communities and policy networks, policy 'emerges' as a pattern in a stream of decisions that are taken during the implementation process rather than from plans or directives. Policy departments exemplify this process because they deal with non-routine issues (Loveday, 1982; Davis et al., 1988; Matheson, 1998). Senior officials here engage in crisis management in which the demands of the moment take precedence over long-term considerations (Matheson, 1997b). Under these conditions it is difficult to make plans. Davis et al. (1988) note that governments cannot institute long-term strategic plans due to the unpredictability of politics, the uncertainties of implementation, the dispersion of power and the difficulty of controlling the economy. For example, many APS agencies report that corporate plans are not integrated with day-to-day operational work (Matheson, 1997b). Officials in policy departments in particular maintain that corporate planning is a less useful exercise for them than it is for program departments (Weller & Lewis, 1989). This is because policy work is more reactive and has less clearly defined and stable goals than program delivery (McCallum, 1984). When decision-making is ad hoc, policy may be recognizable only as a pattern exemplified by a series of decisions (Colebatch, 2002). For example, Loveday (1982) found that industry policy emerged from the administrative decisions that were made by officials when they dealt with particular cases rather than from prior decisions, commands or statements that were made by politicians. Policy formulation and implementation in such instances are concurrent rather than sequential.

CENTRALIZED ORGANIC

The centralized organic structure (what Mintzberg also calls the 'simple structure') arises when the environment is simple and dynamic. Such environments can be comprehended by a single individual who can respond quickly to changes. The simple structure is characterized by high levels of centralization and low levels of standardization. Mintzberg identifies the autocratic and charismatic structures as the two variants of the simple structure. The autocratic structure can also be labelled the patrimonial structure since such organizations combine high centralization with low bureaucratization. Direct supervision is the coordinating mechanism that corresponds to the 'simple structure'. The coordination of work is achieved here through the direction and oversight of a single individual. Mintzberg notes that the use of direct supervision is most common among managers at the strategic apex and the middle line of organizations. An example is a small firm or entrepreneurial business. Within the simple structure the policy style is top down but emergent. This style closely resembles what Allison (1971) called the 'rational actor model'. He contrasted this model with both the 'organizational process' model and the 'bureaucratic politics' model. The rational actor model draws our attention to the role of political leaders in contrast to bureaucratic procedures and partisan mutual adjustment. Simple structures frequently emerge at the topmost levels of government among chief executives and their personal advisers. Simple structures also emerge when people manage

crises. As Mintzberg notes, hostile environments favour the centralization of power since decision-makers can then respond quickly and in an integrated fashion.

Within the simple structure it is leadership rather than the organization or the environment that is the dominant influence upon strategy. This is because such leaders are not constrained by rules and seek to dominate their environments. Simple structures tend to be small and leaders can therefore more easily impose their will on the organization. Simple structures arise in government when power is concentrated in the hands of chief executives. Mintzberg notes that bureaucratic structures will often revert to the simple structure to accomplish change. The most notable example of this was the celebrated 'duumvirate' of Labor Prime Minister Gough Whitlam and his deputy Lance Barnard, who assumed control of all ministerial portfolios for a three-week period following their election to government in 1972. This enabled them to immediately make long awaited policy changes such as ending conscription and withdrawing Australian troops from Vietnam. Ministers in recent decades have centralized power in their personal staff while prime ministers have centralized power in the Department of Prime Minister and Cabinet. Such simple structures permit chief executives to implement policy from the top down. Mintzberg notes that simple structures are often associated with charismatic leadership. Weber argued that in order for politicians to control bureaucrats, they needed to exercise what he called 'political leadership'. This was based on a combination of administrative expertise and political conviction. Indeed, Weber believed that only charismatic leaders motivated by a sense of personal vocation could provide political leadership under conditions of what he called 'plebiscitary democracy' (Matheson, 2000b).

Page (1985) maintains that there are two broad conditions for the existence of political leadership: an adequate supply of ministers who possess leadership capacities and the existence of comprehensive hierarchically structured government organizations. The former has been satisfied with an increased supply of ministerial talent while the latter has been facilitated by a number of structural changes undertaken from the mid 1980s onwards. These included the use of contract appointments, ministerial intervention in the appointment of SES officers, an increased role for ministerial staff, the restructuring of government departments, the introduction of the financial management improvement program and tighter cabinet discipline. These changes have altered the balance of power between ministers and officials in favour of ministers (Campbell & Halligan, 1992; Halligan & Power, 1992). Ministerial advisers have also to a large extent displaced officials as sources of policy advice (Campbell & Halligan, 1992). This erodes one of the chief sources of bureaucratic power identified by Weber, namely, the official monopoly of expertise. Another important source of increased ministerial power has been the abolition of tenure for department heads and their appointment on five-year contracts. This has made SES officers and departmental secretaries much more attentive and responsive to their political superiors (Campbell & Halligan, 1992; Weller & Wanna, 1997). Campbell and Halligan (1992) maintain that the end result of these changes is that ministers are firmly in control of their departments and make effective use of them. For example, SES officers interviewed by Howard (2005) identified what they described as a 'top-down' style of policy-making in which ministers issued policy directives to officials. Campbell and Halligan (1992) similarly note that since the 1980s, policy-making in Australia has become more of a 'top-down' process in which the initiative for policy resides with ministers rather than with subordinate officials.

Prime Minister Paul Keating conformed closely to Weber's depiction of a charismatic leader. Indeed, Keating criticized former governments for having failed to provide political leadership and to have thereby allowed the bureaucracy to assume control of policy (Prasser, 1997). Senior bureaucrats have attested to the immense force of Keating's personality and his role in driving the direction of policy under the Hawke government (Campbell & Halligan, 1992). Prime Minister John Howard also embraced conviction politics on such policy issues as gun control, taxation reform and indigenous affairs and criticized previous Liberal governments for their timidity (Kelly, 1992). Australian political leaders since the 1980s have exercised greater leadership and thereby shaped the policy agenda (Matheson, 2000b). Laffin (1997) maintains that the record of state governments in Australia shows that political leaders can achieve significant policy changes by exercising determined political leadership. Through the exercise of political leadership politicians can revert to the simple structure and thereby overcome the inertia of machine bureaucracy. Weber's argument that bureaucracies are prone to inertia and require 'political leadership' to become innovative is confirmed by the historical evidence from Australian government (Matheson, 2000b).

Walter and Ghazarian (2014) argue that within Australia and other nations there has been a turn to 'court politics' at senior levels of government. Within this system power is centralized in the hands of leaders (what Weber called 'leader democracy') who are surrounded by a small group of personal loyalists. Within Australia since the 1970s there has been a large growth in the size of ministers' personal staff. These advisers have become a rival power centre to the bureaucracy. What emerges is a closed inner circle of decision-makers who seek to curry and retain the favour of the leader. This is a patrimonial structure of the type that preceded modern bureaucracy. Walter and Ghazarian (2014) maintain that the emergence of this structure has reversed the conventions of dispersed power, open scrutiny and bureaucratic neutrality. They note that the style of decision-making characteristic of this structure is one in which initiatives are developed by an inner circle and are driven from the top and in which the urgency of action is used as a licence to ignore the 'normal' checks and balances. Policy formulation within the centralized organic structure is top down and emergent, since in these cases the decision-maker assumes direct responsibility for implementing the strategy her or himself. As Mintzberg (1979) notes, chief executives may therefore be tempted to confuse strategic and operating issues by 'micro-managing' implementation. Kevin Rudd succumbed to this temptation as Australia's prime minister between 2007 and 2010. Rudd's prime ministership was characterized by extreme centralization and top-down decision-making, micro-management of the policy process and reliance on an inner circle of personal loyalists for advice (Rhodes & Tiernan, 2014).

CONCLUSION

We may conclude that policy formulation occurs within four different types of organizational structures that generate four different policy styles. These structures are a product of four broad categories of contingency factors: organizational, technical, environmental and power. Environmental and power factors are the most important contingency factors that shape organizational structures within government. The four different organizational

types correspond to particular types of structures in government. The centralized bureaucratic structure corresponds to government agencies engaged in policy maintenance, the decentralized bureaucratic to street-level bureaucrats with professional expertise or high discretion jobs and to policy experts, the decentralized organic to policy networks and policy communities and the centralized organic to political leaders and their personal staff. These four types of structures are associated with different policy styles as follows. Centralized bureaucratic: deliberate and top down; decentralized bureaucratic: deliberate and bottom up; decentralized organic: emergent and bottom up; centralized organic: emergent and top down. Within Australian government there has been a shift from behaviour formalization to performance control as a means of coordination since the mid 1980s due to the adoption of new public management. Another important change has been the centralization of power in the hands of ministers and their personal advisers and the consequent emergence of centralized organic structures of a patrimonial kind. Such changes have strong parallels in other developed countries.

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15. Knowledge brokers and policy advice in policy formulation
Justyna Bandola-Gill and Catherine Lyall

INTRODUCTION: KNOWLEDGE BROKERS AND POLICYMAKING

The complexity of the policymaking process is generally acknowledged to have increased in recent decades; reasons often cited for this change include a constantly proliferating knowledge base (Owens, 2015; Pregernig, 2014; Wesselink et al., 2013) and the progressively multifaceted character of modern problems such as global environmental issues and the advent of new technologies (Spruijt et al., 2014). At the same time, policymakers are now under pressure to increase the use of research in policy formulation in the form of evidence-based or evidence-informed policy (for example, in the UK context: Cabinet Office, 1999). Consequently, there is now a greater need for more research-based bodies able to support policymakers in collecting and analysing this information (Knight & Lyall, 2013; Michaels, 2009; Owens, 2015, p. 2).

One type of entity that is presumed to facilitate the uptake of research in policy is the so-called knowledge broker (Choi, 2005; Hoppe, 2009; Sebba, 2013; Smith et al., 2013). The concept of knowledge brokerage stems from the private sector, where it has been linked to improved knowledge management, resulting in an increase in innovation within business enterprises (Howells, 2006; Roth, 2003; Ward et al., 2009). Knowledge brokerage has gained traction in recent years and is seen as a promising process for tackling 'wicked' problems given its problem-oriented and interdisciplinary approach (Hering, 2015). Knowledge brokerage can be performed both by individuals and by organizations (Hargadon, 1998; Ward et al., 2009), although some argue that in policymaking the brokerage function is performed more efficiently by organizations than by individuals since organizations offer the interdisciplinary expertise of different members. Additionally, the involvement of multiple participants in advisory bodies, for example, prevents such bodies from advocating for a specific policy solution (Pielke, 2007, pp. 17–18).

The need for research evidence, and consequently for knowledge brokers, can be observed at every stage of the policy process, from agenda setting (to clarify and identify issues and relevant knowledge, see Nutley et al., 2007, p. 93; Stone et al., 2001) to evaluation. However, knowledge brokers are especially useful for policy formulation as, at this stage, research can provide information on policy options and their possible outcomes (Nutley et al., 2007, p. 93; Stone et al., 2001). The nature of policy problems may change from the problem setting to implementation stages as problems become more concrete and the range of choices narrows. At later stages, it may no longer be possible to accommodate different alternatives (Turnhout et al., 2008). Therefore, the formulation stage allows knowledge brokers to focus on research-based alternatives to problems without necessarily advocating specific issues (Turnhout et al., 2008).

The purpose of this chapter is to take stock of the existing literature on knowledge brokers and their potential roles in policy formulation. Knowledge brokers are interdisciplinary phenomena that can be studied from multiple disciplinary standpoints. Scholars from different disciplines, most notably science and technology studies (STS) and political and policy studies, approach debates about knowledge brokerage (and, more broadly, about research in policy) from slightly different perspectives and rarely interact with each other to present a more comprehensive account of both knowledge production and policymaking (for example, Owens, 2015, p. 4). In this chapter we aim to bridge these two disciplinary traditions.

The chapter is organized as follows. We begin with a brief discussion of the challenge of defining a 'knowledge broker'. In order to understand the role of knowledge brokers in the process of creating policy alternatives and supporting decisions on a policy's course of action, we examine the different roles that research evidence might play in policymaking, as well as the different mechanisms through which research might enter the policymaking process. We then discuss the different brokerage strategies identified in the literature. Finally, we discuss how knowledge brokers' characteristics may increase their chances of influencing policy, and consider various problems with the assessment of knowledge brokers' influence.

Within the literature, the terms 'evidence', 'research' and 'knowledge' may be used somewhat interchangeably to describe what is being marshalled in order to shape policy. Others may use the term 'science' without necessarily distinguishing between 'natural' and 'social' science, as knowledge brokers might be seen to act across all disciplinary domains (for example, social science: Lightowler & Knight, 2013; environmental science: Reinecke, 2015; or health science: Traynor et al., 2014). In this chapter we focus on knowledge brokerage as an interdisciplinary activity, not limited to one disciplinary area (Hering, 2015; Phipps & Morton, 2013). However, given our institutional allegiance to science policy and STS, we draw some of our examples from these areas, specifically the practice of scientific advisory bodies in the policymaking process. We also tend to follow Nutley et al. (2007, p. 25) in talking broadly of 'research use'.

CAPTURING THE INVISIBLE: DIFFERENT APPROACHES TO DEFINING KNOWLEDGE BROKERS

The published literature offers multiple definitions of knowledge brokerage, and many studies and policy documents – and, indeed, even practitioners who identify themselves as knowledge brokers – use the term without specifying what they mean by it (Honig, 2004). The phenomenon is variously referred to as knowledge brokers (Jacobson et al., 2003), intermediaries (Honig, 2004), mediators (Osborne, 2004), boundary spanners, research navigators, research liaison officers, knowledge translators and research brokers (Ward et al., 2009). Usually the term 'knowledge broker' in the policy arena is used within the paradigm of knowledge exchange and mobilization and implies a two-way interchange between researchers and policymakers (Bielak et al., 2008; Sebba, 2013): knowledge brokerage is aimed at increasing awareness of research among policymakers and encouraging them to use existing research findings, but it is also targeted at encouraging researchers to conduct policy-relevant research (Van Kammen et al., 2006).

Table 15.1   Selected definitions of knowledge brokers

Term	Source	Definition
Intermediary	Honig (2004)	'Organizations that operate between policymakers and policy implementers to enable changes in roles and practices for both parties.' (p. 66)
Knowledge broker	Bielak et al. (2008)	'Intermediaries (knowledge brokers) link the producers and users of knowledge to strengthen the generation, dissemination and eventual use of that knowledge.' (p. 203)
	Lomas (2007)	'Knowledge brokerage links researchers and decision makers together, facilitating their interaction so that they are able to better understand each other's goals and professional culture, influence each other's work, forge new partnerships and use research-based evidence.' (p. 131)
	Nutley et al. (2007)	'Knowledge brokers mediate between research providers and research users by filtering and disseminating the findings from research.' (p. 63)
	Sin (2008)	'Brokers can be individuals or organisations that bridge the evidence and policy/practice divide.' (p. 86)
	Ward et al. (2009)	'Knowledge brokers act as intermediaries or linkage agents, using interpersonal contacts to stimulate knowledge exchange, the development of new research and the application of solutions.' (p. 271)
Mediator	Osborne (2004)	'This is the intellectual worker as enabler, fixer, catalyst and broker of ideas. Perhaps the salient feature, though, is the association of mediators with movement. The mediator is simply the one that gets things moving.' (p. 440)

It is not always clear if different terms indicate different types of activities or whether they are interchangeable (Knight & Lyall, 2013). Knowledge brokers are usually defined as intermediaries between knowledge producers and knowledge users (Bielak et al., 2008) or as actors bridging the worlds of research and policy (Lomas, 2007). According to Hering (2015, p. 2), knowledge brokerage is 'an iterative and bidirectional process of translation, tailoring of information for specific contexts, feedback and integrations'. A review of illustrative definitions is presented in Table 15.1.

Even though knowledge brokerage might be found in different areas of social life, policy is an area particularly conducive to this type of knowledge activity (Meyer, 2010). Examples of organizations performing knowledge brokerage roles in the policy advisory system include think tanks (Osborne, 2004; Sebba, 2013; Smith et al., 2013), advisory committees (Bijker et al., 2009; Kropp & Wagner, 2010; Owens, 2015) and advisory institutions with explicit knowledge brokerage goals (Reinecke, 2015).

The distinction between knowledge brokers and other policy intermediaries, such as government agencies or non-governmental organizations (NGOs), is often blurred. In this chapter we look at knowledge brokers as actors in the policy advisory system. In that sense, the term 'knowledge brokerage' might be more descriptive of what organizations *do*, rather than what they *are*. Advisory bodies might perform knowledge brokerage

roles simultaneously with other roles, for example, policy entrepreneurship or advocacy (Owens & Rayner, 1999). Therefore, not all advisory bodies are knowledge brokers, but many science advisory bodies do perform knowledge brokerage roles and we include these types of entities in our analysis. Knowledge brokers are usually portrayed as organizations that refrain from promoting one specific policy solution (Bednarek et al., 2015). This focus on disseminating knowledge, often in the form of research-based policy alternatives (for example, Pielke, 2007), is cited as a factor that differentiates knowledge brokerage from other activities, such as advocacy. However, in the increasingly competitive world of knowledge-based policy advisory systems, knowledge brokers may have to assume more active roles as 'marketers' of different ideas, in contrast to more passive forms of knowledge 'transfer' (Caswill & Lyall, 2013).

BETWEEN 'SCIENTIFICATION OF POLICY' AND 'POLICITIZATION OF SCIENCE': DIFFERENT USES OF EVIDENCE IN POLICYMAKING

It is not always easy to determine which elements of policy formulation are amenable to a research-based approach (Guston, 2001; Michaels, 2009). This leads to debates about the extent to which knowledge brokers can contribute to the process and what kind of impacts they could achieve. These debates are not purely theoretical, as the assumed model of the relationship between research and policy affects the possible scope of the impact of knowledge brokers and their roles in the policymaking process (for example, Owens, 2015; Pielke, 2007; Spruijt et al., 2014). A helpful way of making sense of the different roles that research-based advice (particularly in the realm of the natural sciences) might take in the policymaking process is presented by Owens (2015, pp. 6–13). The author categorizes four different approaches to conceptualizing the use of knowledge in policy:

1. Technical rationality – in which science advisors are objective, dispassionate experts and the process of advising is rational and linear.
2. Political rationality – in which science is used to legitimate political decisions, the process of advising is instrumental and political aims are superior to the knowledge base.
3. Cognitive perspectives – in which advisors are seen as facilitators of policy learning.
4. Co-production and boundary work – in which scientific advisors play a role in the mutual constitution of science and policy.

This categorization provides a clear account of the different perspectives on science in policy, as well as the roles that science advisors might play in the process. At the same time, the categories are not mutually exclusive, as the reality of research-based policy advice is not so clear-cut. For example, Owens argues that all four approaches can be observed even within one advisory body; in different contexts science advisors might play the role of impartial experts, legitimators of policymakers' decisions, facilitators of policy learning or agents of boundary work (Owens, 2015, pp. 16–17). Knowledge brokers are thus multifaceted phenomena and many different forms of knowledge brokerage co-exist.

In this chapter we look at these four conceptualizations in depth, recognizing that these different approaches aim to answer two separate questions: whether knowledge can have an impact on policy (technical and political rationality) and through which mechanisms this could occur (cognitive perspectives and co-production and boundary work). We organize the extensive literature on the role of research in policy formulation into two main areas: (1) different conceptualizations of evidence use in policy formulation; and (2) different mechanisms through which research enters the policymaking process. Knowledge brokers are relatively new actors in the policy landscape and most theories of policy change do not explicitly include such actors. We aim to shed light on this gap by introducing the concept of knowledge brokerage into selected existing theoretical approaches to policy change.

Range of Conceptualizations of Uses of Evidence in Policy

The evidence-based perspective on the policymaking process links research, implemented in a systematic way, with improved policies. This view of 'rationalised politics' (Jasanoff, 1990, pp. 1–2) permeates the public (and, to a more limited extent, academic) debate on different policy decisions. It is based on the assumption that there is an objective solution to policy problems that can be indicated by research (Macnaughton et al., 2013). Many authors oppose this linear and rationalistic perspective, however, by pointing out that scientific research, in a majority of cases, does not offer a solution to policy controversies. A popular explanation of this paradox (viz. declarations of increasing evidence use versus the reality of low research uptake in policy) is offered by the notion of an 'excess of objectivity' (Sarewitz, 2000; see also Pielke, 2007, p. 62) – that is, a multiplicity of research findings can support conflicting positions. According to this view, research is used to legitimize pre-existing policy decisions (Grundmann & Stehr, 2012, p. 14). Correspondingly, the debate about the role of research in policy can be either overly critical (leading to an endless technical debate) or under-critical (with research being used instrumentally to justify pre-conceived decisions) (Collingridge & Reeve, 1986). As a consequence, the multiplicity of knowledge claims can then be used by different interest groups to ensure that decisions are open to political considerations, not just purely technical ones, such that 'Research on one hypothesis ought to cancel out research on others, enabling policy to be made which is insensitive to all scientific conjectures' (Collingridge & Reeve, 1986, p. 32).

Despite these pessimistic accounts, in reality, the use of research is evident in policy formulation (Bijker et al., 2009; Cherney et al., 2015; McNie, 2007; Owens, 2015). This contradiction might be explained by considering the use of evidence in policy as a spectrum of different possible applications of research. Nutley et al. (2007, p. 36) propose two general ways of thinking about the role that research plays in formulating policies: instrumental and conceptual. Instrumental use of research in policy formulation refers to the direct use of research in creating policy solutions. Conceptual use of research refers to the more indirect influence of research, both in creating a knowledge base for policymakers and in shaping policymakers' attitudes towards the issues. Nutley et al. (2007, p. 51) argue that research use might be conceptualized as a continuum, with raising awareness (an extremely conceptual use) at one end of the scale, and practice and policy change (an extremely instrumental use) at the other.

The origins of these two broad themes – of conceptual and instrumental uses of research in policy – can be found in the seminal work of Weiss (1979) who proposed six different meanings of research use in policy:

1. Knowledge-driven model, in which knowledge enters policymaking in a linear way (from basic research to applied research to development and application).
2. Problem-solving model, in which research is used to solve a particular policy problem based on recommendations derived from empirical evidence.
3. Interactive model, in which policy formulation is a result of non-linear and complex interactions between different stakeholders, such as policymakers, scientists, journalists and administrators.
4. Political model, in which research is used instrumentally to support pre-defined policy options.
5. Tactical model, in which ordering new research or waiting for new research results is used as a means of delaying policy action.
6. Enlightenment model, in which research has a long-term influence on the way policymakers think about problems, thus affecting the framing of issues and consequently leading to policy change.

Different Mechanisms through which Research Enters Policy

Policy learning
The debate over technocratic and instrumental uses of research in policy formulation focuses mostly on the use of research evidence as providing a basis – or lack thereof – for policy decision-making. However, there is another perspective on the science-policy relationship, which focuses on how research enters (or does not enter) the policy process. Heclo (1974), in his influential work on social politics in the UK and Sweden, has argued that the foundations of policymaking lie not only in the power of certain actors but also in the uncertainty that is inherent in any decision-making process: he views policymaking as a knowledge-intensive area and calls it a 'collective puzzlement' (Heclo, 1974, p. 305). According to this view, the policymaking process is a form of knowledge production in which learning occupies a central position. It is a group activity, where the interaction between different actors plays a crucial role.

Network approaches to policy learning and change take a similar view. Theories in this strand of literature include advocacy coalitions (Sabatier & Jenkins-Smith, 1993), epistemic communities (Haas, 1992), discourse coalitions (Fischer, 2003; Hajer, 1993), social learning (Hall, 1993) or communities of practice (Brown & Duguid, 2002). In this group of theories, actors involved in the process of policymaking include not only researchers and policymakers but also journalists, interest groups, think tanks, activists and industry representatives (Smith & Katikireddi, 2013). These networks of actors are not fragmented, since they merge around issues, beliefs and ideologies. In consequence, the differences between actors do not necessarily correspond to their organizational boundaries but rather to ideological positions on the issues (Smith & Katikireddi, 2013). While these theories do not address knowledge brokerage explicitly, we argue that they could be effective in explaining the work knowledge brokers do.

Knowledge brokers, as explained using the policy learning frameworks, might play

roles as facilitators of learning among multiple groups of actors. Their location on the periphery of social groups opens up opportunities for learning within but also across communities (Brown & Duguid, 2002; Freeman, 2006). The cognitive approach to policy advice helps to shed light on the limitations to the influence of research evidence on policy. For example, one of the most popular frameworks within this strand of literature, the Advocacy Coalition Framework (Sabatier & Jenkins-Smith, 1993), might help explain the limit to the uptake of research evidence in policymaking that is grounded in the distinction between different levels of hierarchical structure of beliefs (deep core, policy core and secondary core). The deep core is resistant to change, and evidence contradicting the deep core values would be ignored or dismissed by members of the coalition (Sabatier & Weible, 2007). Therefore, looking at knowledge brokers from this theoretical perspective suggests that knowledge brokers' activities might affect the strategies and tactics within coalitions, but have no impact on the deep core and policy core beliefs (Sabatier & Jenkins-Smith, 1993).

Boundary work

A second mechanism through which knowledge brokers may impact policy formulation involves boundary work and co-production of science and policy. The group of theories discussed in this subsection critiques a traditional view of the science-policy relationship, where science is an area of human activity that requires autonomy in order to provide socially useful knowledge (Jasanoff, 2003). The way research was utilized in practice was traditionally seen as a linear route from basic research through applied research to application and societal benefit, the so-called 'linear model' (for example, Jasanoff, 2003; Osborne, 2004; Pielke, 2007). This model has been widely criticized by authors who point out that knowledge production is a collective activity that takes place across different disciplines and areas of social life, and is not exclusive to research institutions. This view sees science as integrated with other social spheres, such as the cultural sphere or the state sphere, and as something that is 'co-produced' (Jasanoff, 2004, p. 2). Science therefore can be used in the policy arena because of its embodiment in society, rather than its autonomy, as the traditional model of the science-policy relationship would have it (Bijker et al., 2009, p. 151). This turn is reflected in multiple theories of knowledge production that have emerged in the last decades, for example, post-normal science (Funtowicz & Ravetz, 1993), Mode 2 knowledge production (Gibbons et al., 1994; Nowotny et al., 2001), and the Triple Helix (Etzkowitz & Leydesdorff, 2000).

Science and policy are demarcated not by objective characteristics, but by boundary work:

> The attribution of selected characteristics to the institution of science (i.e., to its practitioners, methods, stock of knowledge, values and work organization) for purposes of constructing a social boundary that distinguishes some intellectual activities as 'non-science.' (Gieryn, 1983, p. 782)

More recent accounts of boundary work perceive it not as a purely rhetorical strategy but also a material and structural one, which results in boundary work being seen as a three-level phenomenon, comprising discourses, practices, and organizational boundaries or arrangements (Bijker et al., 2009, pp. 145–6; Hoppe, 2009). In the case of scientific advisory bodies (Bijker et al., 2009, p. 146) they not only establish the boundaries (for

example, between science and policy, or between science and the advisory body itself) but also link and coordinate across these boundaries, for example, by selecting members who are experienced in both realms and act as translators. Therefore, boundary work includes not only the demarcation of a boundary between participants but also the coordination of relationships, by facilitating interaction among agents coming from different social settings (Hoppe, 2009).

Different types of boundary work can be adopted in different contexts. On the one hand, in less politically contentious cases, boundary work might take the form of a division of labour between scientists, policymakers and other players involved in the policymaking process (Turnhout et al., 2008). On the other hand, on more controversial issues, boundary work might be focused on delineating different knowledge coalitions and alignments of actors (Turnhout et al., 2008).

One of the ways in which a knowledge broker helps to navigate between boundaries is by producing 'boundary objects' that are located in between two social settings. Examples of boundary objects produced by knowledge brokers include conferences, reports and research summaries (McNie, 2007). Boundary objects are characterized by two main attributes: their flexibility, which makes it possible for actors from both sides of the boundary to use them for different purposes; but also by their robustness, which allows the objects to maintain their identity across these different settings (Star & Griesemer, 1989). Knowledge brokers may also be viewed as 'boundary organizations' (Guston, 2001). These organizations have three characteristics: they create boundary objects; they involve actors from different sides of the divide; and they are accountable to both of these worlds. Boundary organizations are able to provide resources to those on both sides of the boundary and maintain stability across the otherwise constantly changing boundary (Guston, 2001).

DIFFERENT STRATEGIES FOR KNOWLEDGE BROKERAGE

The preceding review of different theoretical approaches to knowledge into policy process clearly demonstrates that knowledge brokers can play different roles, depending on the underlying assumptions about the relationship between knowledge and policy. Part of the reason there is such a diversity of processes within knowledge brokerage is that there are very different views on why research is not often used in policy formulation. Knowledge brokers' strategies might be seen as ways of responding to these problems. Some approaches assume that the problems stem from insufficient communication and cultural barriers between the policy and science worlds (Lomas, 2000). Therefore, brokers could be effective by providing information or connecting different actors. Other approaches assume the problems are more complex, including the multiplicity of actors involved and the conflicting values and interests present in both knowledge production and policymaking (for example, Smith, 2013b). These approaches therefore support the view that brokers could be effective by encouraging co-production of knowledge by different groups of actors (including scientists and policymakers) and shared formulation of the framing of problems.

The key question this section aims to answer is: what work do knowledge brokers actually do? Various authors present different categorizations of knowledge brokerage roles (see, for example, Meyer, 2010; Reinecke, 2015; Sin, 2008; Ward et al., 2009; Wesselink

et al., 2013). We synthesized these categorizations based on the main focus of the activity and discovered that knowledge brokers' strategies consist of, broadly speaking, three groups of activities: strategies relating to information-sharing (focusing on moving information from science to policy); strategies relating to relationships (focusing on creating links and coordinating the relationship between different actors); and strategies relating to the creation of knowledge in a co-produced way. Each of these groups of strategies is explained in more detail below.

Information-oriented Strategies

This group of knowledge brokerage strategies involves managing the information coming from research, for example, by filtering and disseminating it (Nutley et al., 2007). Knowledge brokers are responsible for providing policymakers or practitioners with information or connecting them with relevant experts (Michaels, 2009). In order to do so, knowledge brokers need the capability to identify the knowledge needs of different actors (Reinecke, 2015).

Turnhout et al. (2013), in their categorization of what they call knowledge brokerage 'repertoires', introduce a distinction between 'passive' and 'integrative' approaches. Seen from this perspective, information-oriented strategies are the most passive of all knowledge brokerage activities, as they are focused on providing access to relevant research, for example, by writing and disseminating reports (Turnhout et al., 2013; Ward et al., 2009). The key role of knowledge brokers here is assuring that information is presented in a way that is understandable by the recipients (Michaels, 2009).

Relationship-oriented Strategies

The second group of knowledge brokerage strategies involves creating and supporting relationships between different groups of actors. This category of strategies might be summarized as combining 'know-how' with 'know-who' (as expressed, for example, by Meyer, 2010), as knowledge brokers seek to increase interpersonal contacts and communication between different actors (Ward et al., 2009; see also Lomas, 2000). The category is quite heterogeneous and might be better understood in terms of a spectrum: on one end, knowledge brokers simply create connections between different actors, and on the more active end, knowledge brokers play the role of translators, mediating research between different disciplines and engaging different actors (Michaels, 2009; Turnhout et al., 2013). Relationship-oriented strategies help develop trust between knowledge brokers, policymakers and scientists (Hering, 2015). Translation and mediation are integral processes, and make the process two-way (Sin, 2008; Turnhout et al., 2013).

As noted by Caswill and Lyall (2013), policymakers tend to see research as unfit for their needs in terms of language used, understanding of policy needs, scope of analysis and usability. Conversely, academic researchers working with policymakers are concerned that their academic freedom and the quality of their research will be negatively impacted by the increased integration of science and policymaking (Caswill & Lyall, 2013). Knowledge brokers, who are capable of synthesizing and translating research into more usable forms (Caswill & Lyall, 2013), can help solve these problems by increasing interaction between researchers and policymakers.

Co-production-oriented Strategies

The most integrative approach to the relationship between research and policymaking is found in the co-production-oriented group of strategies. This category of knowledge brokerage strategies includes activities aimed at producing relevant knowledge by different groups of actors and building capacities for accessing and applying knowledge (Michaels, 2009; Ward et al., 2009). In this group of strategies, knowledge brokers act not to 'link' actors located on different sides of the production/use divide but rather to blur the boundaries and serve as a partner to stakeholders (Turnhout et al., 2013), sometimes termed 'transdisciplinary research' (Lyall et al., 2015; Pohl, 2008). Knowledge brokers facilitate interactions between different actors, who together create frameworks of policy problems and formulate possible policy solutions (Michaels, 2009). One of the important aspects of knowledge brokers is their role as 'linguistic creators' (Meyer, 2010, p. 121) who are able to create a shared vocabulary, clarifying ambiguous terms and explaining how different sides use them (Michaels, 2009).

The particular strategy adopted by knowledge brokers depends on the context, including the type of issue at hand (Dobbins et al., 2009; Lomas, 2000; Ward et al., 2009). Michaels (2009) uses Turnhout et al.'s (2007) typology of policy problems to argue that the roles of knowledge brokers differ based on how the policy problems are structured, including the scale of agreement of different actors on the goals of the policy and the way of achieving it. Knowledge brokerage may consist of providing information (for well-structured problems, where actors agree on the goals and strategies of reaching these goals); facilitating a learning process (for unstructured problems, with high levels of scientific uncertainty about issues); managing dialogue between different actors in order to develop common concepts (for badly structured issues, with high levels of conflict of interest); or assessing arguments made by different sides of a conflict (for moderately structured issues, with conflicts around costs and benefits) (Michaels, 2009).

TRAITS EXHIBITED BY SUCCESSFUL KNOWLEDGE BROKERS

The most salient feature of knowledge brokers may be their 'double peripherality' (Meyer, 2010, p. 122) – their location on the periphery of both policy and science. In many contexts, this location is conducive to their activities, for example, by making translation and mediation possible. At the same time, their position may make them less visible in the policymaking process (Meagher & Lyall, 2013). This may, in turn, make it more challenging to gain sufficient authority and affect the perception of their expertise (Knight & Lightowler, 2010). Therefore, in order to make an impact on policy formulation, knowledge brokers require a certain set of qualities: the ability to analyse and transform research; expertise in both policymaking and knowledge production; the ability to establish links across different domains; and autonomy and authority.

Knowledge brokers operating in policy-related fields must be able to analyse and transform academic research, skills that are close (but not identical) to those held by scientists themselves. As noted by Turnhout et al. (2013), knowledge brokers increasingly produce research, as opposed to focusing solely on the results of such research. For instance, their role is to involve stakeholders in the research process and to communicate preliminary

results (Turnhout et al., 2013). An important aspect of this process is helping scientists and other stakeholders co-produce the research questions; this is often a challenging task of formulating mutual understanding of policymakers' needs in a way that is understandable and workable for scientists (Turnhout et al., 2013). Knowledge brokers should also have the ability to take a broad overview of the existing research (Clark & Kelly, 2005) and to connect existing research to policy problems in order to form possible solutions (Sverrisson, 2001).

Furthermore, in order to successfully support policy formulation, knowledge brokers ought to have expertise in areas related to both policymaking and knowledge production (Dobbins et al., 2009; Hering, 2015; Phipps & Morton, 2013). Lomas (2007) underlines the need to be entrepreneurial, and to have an advanced understanding of the different cultures of policy and science. In order to achieve this, knowledge brokers should be able to facilitate, mediate and negotiate, as well as to understand the process of learning (Lomas, 2007).

The third group of characteristics of knowledge brokers includes skills in establishing links across different domains (Meyer, 2010; Sverrisson, 2001). In order to do so, knowledge brokers usually have a broad network of connections or the ability to develop such a network (Traynor et al., 2014). Being 'networked' (by participating in different networks, as well as having connections to different policymaking bodies or even policy networks) allows knowledge brokers to better disseminate their ideas at different levels of government (Owens, 2015, pp. 154–7). Networks also support the two-way exchange between academic researchers and policymaking and allow for better assessment of the needs of both policymakers and knowledge producers.

Finally, in order to successfully support policy formulation, knowledge brokers ought to exhibit the characteristics assigned to them by other actors, such as autonomy and authority (Owens, 2015, p. 147) or credibility (Traynor et al., 2014). Authority and credibility are often a result of the boundary work described in the preceding section, and frequently stem from a framing of an institution as a 'scientific' body (Owens, 2015, p. 148) or by acknowledging an individual's research and policy background. Authority is closely related to autonomy, as the credibility of an advisory body is generated partially in terms of its independence, for example, financial independence or freedom of enquiry (Owens, 2015, p. 151).

INFLUENCE IN CONTEXT: MEASURING THE IMPACT OF KNOWLEDGE BROKERS

It is challenging (if not impossible) to ascertain the precise measurement or even definition of knowledge brokers' impact on policymaking (Bijker et al., 2009, p. 141). The influence of knowledge brokerage depends on the broader social, political, economic and empirical background (McNie, 2007; Michaels, 2009; Owens, 2015; Owens & Rayner, 1999). In most cases, a final policy decision cannot be traced back to one factor, but is instead the result of a multiplicity of different processes and interventions (Bednarek et al., 2015; McNie, 2007; Sarewitz & Pielke, 2007).

We have discussed in the third section of this chapter that research evidence can be used in multiple ways in the policymaking process (Nutley et al., 2007; Owens, 2015;

Weiss, 1979). However, not all of the situations where policymakers interact with research might be seen as 'influence'. For example, in their study of a scientific advisory body in the Netherlands, Bijker et al. (2009) found that the reach of advisory reports (measured by the numbers of copies sold or citations to the report in the literature and other policy documents) does not necessarily translate into policy decisions. Sometimes, knowledge brokers may influence the policy process by drawing attention to certain issues, before any recommendations are even made. The act of commissioning an advisory organization to conduct research or produce a summary report might influence policymakers by focusing their learning on formulating or reassessing arguments (Nutley et al., 2007, p. 34; Owens & Rayner, 1999). Owens and Rayner (1999) show that this type of learning occurs when the issues at hand occupy the periphery rather than the core of the policy.

The influence of knowledge brokers on policy formulation, therefore, cannot be separated from the circumstances in which the advice is given. Social and political contexts are often more important determinants of whether evidence can impact policy than the quality of the advice itself (Smith, 2013a, p. 23). One important contextual factor that might affect the likelihood of successful brokerage is that influence on policy is through continuity, particularly in terms of opening 'windows of opportunity' in the policymaking process (Hering, 2015). The critical importance of situations when policy advice is needed might be illustrated by the fact that sometimes knowledge brokers wait to share their proposed ideas for a policy solution until such windows are opened (Sebba, 2013; Stone et al., 2001).

Another factor affecting the work of knowledge brokers is the knowledge needs of policymakers. According to Liftin (1994), knowledge brokers are most useful where policymakers do not have sufficient time to commission original research or lack expertise in certain areas. Lövbrand (2007) argues that knowledge brokers have a chance of making an impact in situations where advisors have not made clear recommendations. According to some authors (e.g. Liftin, 1994; Michaels, 2009), knowledge brokerage might be useful in areas of high scientific uncertainty, as these areas require the ability to order and translate knowledge at which knowledge brokers excel.

Finally, the last set of circumstances in which knowledge brokers might be influential relates to the degree of development of policy. New areas of policy enquiry – ones that do not yet have an established policy core – offer more opportunity for knowledge brokers to be involved in policy formulation (Owens & Rayner, 1999). Additionally, there is an increased demand for academic research before and/or after major policy changes or in times of political crisis or contestation (Daviter, 2015; Michaels, 2009; Nutley et al., 2007, p. 76). Therefore, such contexts might open up opportunities for knowledge brokers. In these circumstances, research that resonates with other sources of evidence or advice would be more likely to be taken into account, in contrast to other forms of conflicting advice (Nutley et al., 2007, p. 76).

CONCLUSIONS

This chapter has taken stock of research on the roles that knowledge brokers play in policy formulation. Knowledge brokers, as facilitators of evidence uptake in policy, potentially play a role at every stage of the policymaking process. However, as their role

is usually related to proposing policy alternatives and assessing them in the light of the existing research base, they are likely to be most active in the policy formulation stage. Knowledge brokers are difficult both to define and to assess, as their activities are multi-faceted and highly context-dependent. But these same qualities make knowledge brokers particularly well suited to supporting the complex, interdisciplinary challenges of modern policymaking.

This chapter has identified three basic mechanisms through which knowledge brokers operate: information-related strategies, relationship-related strategies and co-production-related strategies. The activity undertaken will depend on the context of the policy problem and the underlying model of the policy-science relationship. In order to secure influence and bring clarity to Heclo's (1974, p. 305) process of 'collective puzzlement', knowledge brokers operating at the interface between research and policy therefore need to display a range of traits and be adept at selecting strategies appropriate for their situation. This leads us to the somewhat unsatisfactory conclusion that there is no one single model of knowledge brokerage that can guarantee success within the policymaking process.

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16. Policy entrepreneurs and policy formulation
Andrew Gunn

DEFINING THE POLICY ENTREPRENEUR

In the book *Agendas, Alternatives, and Public Policies*, John Kingdon (1984 [1995]) defined policy entrepreneurs as actors who:

> are not necessarily found in any one location in the policy community. They could be in or out of government, in elected or appointed positions, in interest groups or research organizations. But their defining characteristic, much as in the case of a business entrepreneur, is their willingness to invest their resources – time, energy, reputation, and sometimes money – in the hope of a future return. That return might come to them in the form of policies of which they approve, satisfaction from participation, or even personal aggrandizement in the form of job security or career promotion. (Kingdon, 1984, p. 129)

The concept has evolved since Kingdon's original work, with a growing number of studies being published in recent years. In particular, Mintrom has advanced the field of policy entrepreneurship both through empirical investigations and theoretical development. Mintrom (2015) clearly defines policy entrepreneurs as 'political actors who seek policy changes that shift the status quo in given areas of public policy' (Mintrom, 2015, p. 103).

Policy entrepreneurs can be regarded as a subset of the wider category of political entrepreneurs, where policy entrepreneurship is part of a wider literature on entrepreneurial activity in the public, political and governmental spheres (see Petridou et al., 2015).

Policy entrepreneurs can come from a wide range of backgrounds, including international and non-governmental organizations, private businesses, politicians and civil servants. To account for this diversity, Crow defines three categories of policy entrepreneurs: citizen, expert and elected (Crow, 2010, p. 312). Policy entrepreneurs can be based both within and outside the state and also in the third sector (see, for example, Lee, 2015; Zhu, 2008).

Policy entrepreneurs have been variously, and sometimes contradictorily, defined. For example, Roberts and King (1991) atypically defined policy entrepreneurs as located only outside the state: people who 'from outside the formal positions of government, introduce, translate and help implement new ideas into public practice' (Roberts & King, 1991, p. 147).

Policy entrepreneurs can work in isolation, but network extensively with others when required. For example, some studies are dedicated to high-profile individuals such as Professor Ross Garnaut who sought to influence policy concerning economic engagement with Asia and climate change in Australia (Beeson & Stone, 2013), and Professor Sir Ara Darzi, a surgeon who undertook a review of health policy in London (Oborn et al., 2011). Alternatively, they can be teams of people working together. For example, Mintrom et al. (2014) looked at teams of policy entrepreneurs working within three Australian state governments who promoted state-level knowledge economies.

To help define policy entrepreneurs, we can compare them to other actors. Brouwer and Biermann (2011) point out, 'one could argue that everyone involved in policy making now and then sees policy gaps and contributes in some sense to policy change. This does not, however, make them policy entrepreneurs.' To illustrate this point, the authors 'distinguish policy entrepreneurs from *policy intellectuals*, who are only engaged in the generation of innovative ideas; from *knowledge brokers*, who provide links between different knowledge sources; and from *policy advocates*, who mainly translate ideas into proposals' (emphases added). Policy entrepreneurs differ from these other actors because of their readiness to take risks and their goal-orientated behaviour. In another study, Wampler (2009) differentiates policy entrepreneurs from *policy advocates* and *pro forma adopters*. Policy entrepreneurs, unlike the other two actors, are innovators not imitators and are more likely to provide resources and support to realize change because of the rewards available to them.

The objective of policy entrepreneurs is to break the status quo, but the motivations to do this can be diverse, as are the rewards for achieving their goals. Policy entrepreneurs can be driven by ideology or the desire to improve the profile of a cause, or raise money for it. If policy entrepreneurs hold (or wish to hold) public office, the pay-off can be electoral success (Wampler, 2009). Navot and Cohen (2015) argue that a cost-benefit calculation can be used to explain when policy entrepreneurs choose to act. In their study of corruption reduction in Israel, the authors found instances of policy entrepreneurs active in reducing corruption, while in other issue areas there were no policy entrepreneurs. Navot and Cohen believe that entrepreneurs decide to take action using a cost-benefit calculation; they act only if they believe that they have a good chance of success and that the benefits outweigh the risks and costs (Navot & Cohen, 2015, p. 73). It is important to remember, however, that the emergence of a policy entrepreneur does not mean that policy change will occur.

Policy entrepreneurship also has a place in studies of multi-level and global governance as well as international organizations. This is because policy entrepreneurs operate at, and across, several different territorial scales of governance.

First, policy entrepreneurs can be part of national policy making at the heart of the nation state. Examples include Brouwer and Biermann's (2011) research into Dutch water management and Cohen's (2012) study of National Health Insurance Law in Israel.

Second, policy entrepreneurship can be present in local politics. Chapin (2007) sees local governments in the US state of Florida as policy entrepreneurs, while Petchey et al. (2008) focus on 'street-level bureaucrats' in London and illustrate the dynamics between the local and national tiers of government. This example also shows how policy entrepreneurs working at a local level may seek to change national policy.

Third, in federal government structures, policy entrepreneurs may operate at the subnational level. For example, Drummond (2010) evaluates the work of a group of innovative US state-level policy entrepreneurs, who in the absence of federal action to address the problem of climate change produced a range of state climate action plans. A study on regional governance in Germany found that policy entrepreneurs, as actors at the interface between different levels of the state, had a knowledge advantage. This 'edge in expertise makes policy entrepreneurs powerful and helps them to win allies and to influence regional processes even in the face of powerful opposition' (Böcher, 2015, p. 83). Furthermore, Mintrom's (1997) work on school choice identifies the importance of networking across state lines when working at the subnational level (Mintrom, 1997, p. 739).

Fourth, policy entrepreneurs can work at the supranational level of the European Union, as shown in Corbett's (2003) study of higher education policy and Braun's (2009) research into the evolution of emissions trading. Kaunert (2010) uses the phrase 'supranational policy entrepreneurship' in a study of the Lisbon Agenda and the European Commission. This study debates the emergence of a 'new statecraft' grounded in international networks managed by supranational political entrepreneurs.

Fifth, policy entrepreneurs can be found working at the nation state level, but engaged with international organizations. Shroff et al. (2015) investigate reform of India's national health insurance scheme and find that domestic policy entrepreneurs – including party leaders, technocrats and senior government officials – collaborated with international agencies to ensure the adoption of reforms.

Sixth, international organizations themselves may be the policy entrepreneurs, seeking to change domestic policy. Hrabanski et al.'s study of environmental non-governmental organizations, who advocate the adoption of market-based instruments for ecosystem services, highlights the dynamic relationship between non-governmental organizations and nation states and the role of policy transfer. The authors argue that when a state cannot adequately defend its political and economic sovereignty to produce its own public policies, policy entrepreneurs are stronger. Conversely, when a state is politically and economically capable, the role for policy entrepreneurs to diffuse standards and policy instruments is more constrained (Hrabanski et al., 2013). On a related theme, a study by Nay (2012) examines the role of the United Nations HIV/AIDS Secretariat as a policy entrepreneur. This research defined this organization as a 'transfer entrepreneur' because of its involvement in the transfer of policy ideas among international administrations.

As a final example, Alimi (2015) explores the 'global framing of policy entrepreneurship', which accounts for how new forms of policy processes have transformed the international public sphere into a multi-dimensional, more fragmented and fluid space of diffused authority shaped by interactions between multiple actors. This has stimulated new patterns of entrepreneurship and new players claiming authority on 'global' policy terrains. Alimi investigates the Global Commission on Drug Policy and identifies how they 'invested in the global level as a policy terrain to untie constrained participants from traditional state-based patterns of policy processes and engage in policy entrepreneur strategies of global actorness' (Alimi, 2015, p. 887).

The range of actors, working at multiple levels of governance as outlined above, illustrates how policy entrepreneurship is congruent with the idea of policy networks, which involve a diverse range of policy actors, and with the shift towards more disaggregated and plural forms of governance.

THE ROLE OF POLICY ENTREPRENEURSHIP IN POLICY FORMULATION

The pre-decision stages of policy making offer extensive opportunities for policy entrepreneurs to influence the setting, interpretation and revision of the policy agenda. Responding to this agenda, by transforming it into policy content to be adopted by decision makers, is a significant part of policy entrepreneurship. Policy entrepreneurs are, by their very nature, innovative actors who adapt to a specific set of circumstances. There

is, therefore, no one universal definition of their behaviour. However, some reoccurring themes in the research capture the various skills and strategies used by policy entrepreneurs in their work. These are set out below.

Narratives

Ideas, and the interpretation of these ideas, are very powerful tools for policy entrepreneurs. Policy entrepreneurs need to be good storytellers, and must be able to construct a narrative around a policy issue. The narrative can interpret a problem in a particular way and it needs to contain the rationale for policy change. Narratives can include, but are not limited to, the need to avert a looming crisis, address an injustice, improve health and wellbeing, or deliver better government and public services. For example, Appel and Orenstein's (2013) investigation of the spread of pension privatization and a flat tax in the former communist countries of Eastern Europe found that reforms were introduced without any external pressure from the European Union. Rather, domestic policy entrepreneurs succeeded in arguing that both of these reforms would improve national economic competitiveness in the highly integrated global economy. This study found that policy networks armed with ideas – not externally imposed conditionalities or actors with significant financial resources – drove policy change.

Communication

Once a narrative has been developed, it needs to be disseminated to demonstrate the significance of a problem and to build a consensus around policy change. Policy entrepreneurs need to be charismatic communicators with strong rhetorical skills. Communication can involve making a persuasive pitch for policy change and presenting policy options to make them look more attractive. The process may also require developing a public relations strategy to attract new supporters. For example, Alimi (2015) identified how the Global Commission on Drug Policy undertook a wide range of activities to exert multi-level influence and sell the idea that policy change was necessary.

> In the public sphere, tactical advocacy tools were deployed, from widespread traditional and social media coverage to outreach campaigns and partnerships. Each of the Commission's releases was accompanied by a series of international press advisory exercises and conferences; the commissioners mobilized their networks to secure interviews in traditional newspapers and to disseminate the Commission's message internationally. This strategy allowed the Commission to bring the drug issue back to public debate spaces, bypassing traditional political forums. (Alimi, 2015, p. 884)

Responding to Opportunities

Policy entrepreneurs need to be able to recognize and respond to opportunities in order to achieve policy change. This involves being able to identify potential triggers of policy change. For example, new policies may become possible following a change in government, shifts in public opinion, media coverage of an issue, new scientific breakthroughs or advances in technologies which enable services to be delivered in new ways. Many studies note that policy entrepreneurs need to be able to exploit these opportunities but must

also be in a state of 'readiness' to act quickly. When there are competing ideas for policy change, policy entrepreneurs can benefit from 'first mover advantage' when they make progress faster than their rivals (Kaunert, 2010, p. 177). For example, Braun's (2009) study of emissions trading policy in the European Union identified how a policy entrepreneur moved quickly:

> to build alliances and to put together a cross-party consensus on the directive, covering both progressive-environmentalist and conservative pro-business fractions . . . . Furthermore, due to the speed of the negotiating process other actors had little time to develop negotiating skills or to put forward alternative conceptions as they simply lacked the knowledge which was concentrated in the hands of the policy entrepreneurs. (Braun, 2009, p. 483)

Networking

Böcher (2015) found that policy entrepreneurs use a range of 'power resources' to realize their goals, including drawing on their political experience, political contacts, professional reputation and expertise. Policy entrepreneurs also need to collaborate with others. This may create a 'bandwagon effect', where more actors join the 'winning team' (Kaunert, 2010, p. 177). The importance of teamwork is evident in the example of health policy in London, where Professor Darzi:

> re-defined (new and existing) problems, enlisted stakeholder support, and enrolled critical actors. In order to mobilize resources and groups, he articulated a vision supported by strong allies to render it more compelling. However, the development of this policy was contingent at every point on getting a sufficient number of allies and followers . . . Darzi's well-articulated and resourced policy could not on its own accomplish its intended purpose; the policy entrepreneur was dependent on others being enlisted so that they would be engaged with his ideas. To do so, he needed to tie his ideas to stronger allies, or occasionally alter his ideas, or convince others that their interests were compatible with his goals. (Oborn et al., 2011, p. 339)

Policy entrepreneurs therefore need to be good at networking, trust building and identifying 'linking strategies' to make connections with other actors and networks (Brouwer & Biermann, 2011). Building and maintaining coalitions of support around a policy issue can create a consensus for policy change and improve the chance of policy change being adopted (see Cohen & Naor, 2013 for an example). At the later stages of policy formulation, policy entrepreneurs may need to remove potential barriers to reform and overcome resistance. Where this is not possible, they need to contemplate when to compromise and revise their goals and when to retreat.

Policy entrepreneurs also need to work with different people as policy formulation progresses. This is because they play somewhat different roles at each stage, from problem identification and definition to agenda setting and promoting government policy adoption. For example, policy entrepreneurs may seek support from those outside government to get initial attention for a policy idea and to build support around an issue. As government interest grows, they will work closely with those inside government, such as bureaucrats and ministers.

Knowledge of the Policy Issue

Policy entrepreneurs need to have an intimate knowledge of the policy issues they seek to influence. Mintrom and Norman (2009) argue that policy actors who are well connected in the local policy context tend to have a better understanding of an issue, and achieve more success in securing policy change, than those who are not. This requires a high level of social acuity: policy entrepreneurs must understand the ideas, motives and concerns of others in their local policy context and respond effectively (Mintrom & Norman, 2009, p. 652). For example, in a case study of fisheries management in the US state of Maine, Beem (2007) concludes that the efficacy of a policy entrepreneur rests on the strength of the ties he or she has to the people involved in the policy change, in this case the local fishing community (Beem, 2007, p. 545). Policy entrepreneurs need to be entrepreneurial not only in developing policy solutions but also in steering and influencing the policy process. Developing policy solutions depends on the policy domain and the policy problem to be solved. Steering and influencing the policy process is largely shaped by the policy network and legislative arrangements in the particular context at hand.

Policy entrepreneurs can use their knowledge of a policy area to enhance both the effectiveness (is it suitable, fit-for-purpose, robust and of sufficient quality?) and acceptability (is it legitimate and politically possible?) of public policy. Policy entrepreneurs, driven by their desire to break the status quo, may show great ingenuity in developing a range of novel proposals, or make a persuasive case for one proposal in particular (see Howard, 2001 for an example). To improve the quality of policy they may incorporate credible supporting evidence and calculate the costs and benefits for each option. In undertaking these tasks, policy entrepreneurs may steer the formulation of policy to ensure that policy proposals and choices are aligned to their own goals. To do this, policy entrepreneurs require great persistence as they risk investing time and resources in an attempt to secure the return of policy change (see Guldbrandsson & Fossum, 2009, p. 439 for an example).

Knowledge of the Policy Process

Policy entrepreneurs need to navigate the bureaucratic and legislative processes required to enact new legislation or regulation. This requires having a thorough knowledge of the institutional system in which they operate, and being able to use it (Huitema et al., 2011, p. 729). For example, David (2015) explores how US foreign policy decisions on national security made during the G.W. Bush years were the result of policy entrepreneurs. Both the invasion of Iraq and the legal redefinition of torture were developed and pushed through by a small group of players – actors who took advantage of the centralized, hierarchical decision-making system to pull policy in a direction aligned with their own ideas and goals. These policy entrepreneurs were successful in framing and reorienting the administration's core national security policies as well as redefining the ideational agenda of US foreign policy. By controlling the flow of information and limiting access to closed circuits of decision making, they manipulated and dominated the policy process. The policy entrepreneurs realized their goals with:

> a clear strategic vision of ends and means, an ability to withstand the fits and starts of a drawn-out decision-making process (which are often but not always foreseeable), a willingness to play

dirty in an ostensibly collegial (actually quite formal) decision-making process that actually lends itself to manipulation of information, ad hominem attacks, underhanded maneuvers, ad hoc alliances, and coalitions of convenience. (David, 2015, p. 186)

Personality Traits

The examples set out above identify the importance of actors with specific skills. To provide an overview of the personality and leadership skills required for successful policy entrepreneurship, we draw on Timmermans et al. (2014). This study found that policy entrepreneurs perceive themselves as having distinguishing traits, including: 'creativity', where they actively seek new solutions to problems, enjoy experimenting and can identify the potential of a radical idea at an early stage; 'unconventionality', which involves being open to radical ideas that break the status quo; and 'agreeableness', described as being cooperative, trustworthy and capable of understanding and adapting to the views of others. The research also found that policy entrepreneurs score themselves highly on 'transformational leadership', where they are able to persuade and influence others, thus allowing them to break with traditional institutional authority and to persuade supporters to embrace and mobilize innovative ideas (Timmermans et al., 2014).

The Importance of Context

As this chapter shows, policy entrepreneurs can emerge at various locations in the policy process. Kingdon, Mintrom and other authors agree that the exact position policy entrepreneurs hold in the policy-making process is not a defining characteristic. This is because 'policy entrepreneurs are primarily identifiable by the actions they take, rather than by the positions they hold' (Brouwer & Beirmann, 2011). However, this is not to say the positions they hold are without consequence for either their activities or their effectiveness. Certain positions come with power, or access to power, and make it easier to exert influence. This is true for policy entrepreneurs operating at all scales of multi-level governance, both inside and outside the state.

Policy entrepreneurs may be more proximate to policy makers and have more access and influence on those who make decisions. Positional power can dictate the policy entrepreneurs' toolkit and is an important determinant of success. This was the theme of research into urban development in the Netherlands, which concluded:

> Not only do policy entrepreneurs with formal power employ fewer strategies, they also seem to have more influence on the policy-making process than actors that have no formal power and need to mobilise the public to raise awareness. Conversely, outsiders creatively try to influence the policy process and prepare and seize moments to act hoping these actions will lead to successful public agenda setting. (Verduijn, 2015, p. 68)

Studies of policy entrepreneurship need to acknowledge contextual factors, individual actions within these contexts and how context shapes such actions. Successive studies by Mintrom have considered both the characteristics of policy entrepreneurs and the contexts in which they operate. Schneider et al. (1995), followed by Mintrom (1997), offer a model for understanding the emergence and practices of entrepreneurial actors,

given specific contexts. Mintrom and Vergari (1996) demonstrate how the probability of policy change is determined by key contextual variables as well as the actions of policy entrepreneurs within those contexts. Context is particularly important when identifying the factors which may constrain policy entrepreneurship.

Empirical studies of policy entrepreneurship identify the importance of contextual variables. Botterill (2013) points out that context is important, regardless of how effective a policy entrepreneur may be; Oborn et al. (2011) acknowledge that an appropriate climate for change is essential. To provide a balanced analysis, Beeson and Stone (2013) outline the successes and failures of the policy entrepreneur in their study which 'provided a corrective by stressing contextual factors' (p. 12); the authors concluded when 'the political context is not conducive, even possession of what are widely accepted to be "the facts" may not prove sufficient to win the policy debate' (p. 2).

A study of Australian Prime Minister Kevin Rudd found that Rudd displayed many qualities of a policy entrepreneur, and engaged in entrepreneurial activities in order to have his policy proposals endorsed and funded. This research also thoroughly interrogated how contextual factors both limited and enabled Rudd's actions, and concluded by suggesting 'that contextual factors may be understated in other studies of policy entrepreneurship' (Mackenzie, 2004, p. 383).

Two contextual factors in particular are worth exploring. The first is the wider political context. Political elites are more receptive to the messages of policy entrepreneurs when these messages are aligned with their own political and ideological views. Moreover, policy entrepreneurs are more likely to be listened to when their ideas for change are compatible with the economic ideas of those making policy choices. For example, Hogan and Feeney (2012) demonstrate the influential role of these political issues in policy formulation. Their comparative and historical study examines policy change in Sweden and the United States following the economic crises of the mid 1970s and early 1980s. In both countries, economic change was followed by criticisms of existing economic policy, changes of government and political leaders, and the emergence of policy entrepreneurs seeking change. In Sweden there was only minor policy change as there was no economic ideational change. In the United States, however, ideological change occurred in the form of Reaganomics, with Republican President Ronald Reagan highly receptive to policy entrepreneurs advocating reforms such as monetarism. This enabled policy entrepreneurs to realize policy change. This example reminds us that political context is decisive, and that political elites with power are a critical factor responsible for policy change (Hogan & Feeney, 2012, p. 18).

Second, research also highlights the importance of institutions. A study of water policy change in 16 countries by Huitema et al. (2011) found that following a consideration of all the national contextual factors that influence the way policy entrepreneurs operate, the institutional dimension stands out. The research concluded:

> Policy entrepreneurs must adjust their strategies to the particular institutional context in which they are operating. The cases analysed here show that countries clearly offer different opportunity structures to individual or collective entrepreneurs. Institutional contexts each offer a particular opportunity structure. Complex decision making processes in which many different parties and levels of government are involved usually feature a wide range of venues where change agents may place their issues on the agenda or seek support for their ideas. (Huitema et al., 2011, p. 727)

Institutional factors were also extensively examined by Blavoukos and Bourantonis's (2012) research on Greek foreign policy, which revealed:

> the most important structural institutional parameter that facilitates or frustrates entrepreneurial activity is the level of entry barriers that policy entrepreneurs face in any given policy arena. The permeability of such barriers, which are most often – but not exclusively – institutionalized, dictates the amount of resources that the entrepreneurial interloper has to invest in order to advocate policy change. (Blavoukos & Bourantonis, 2012, p. 602)

THE ROLE OF POLICY ENTREPRENEURS IN THE POLICY ADVISORY SYSTEM

This section of the chapter directly addresses the theme of Part IV of this volume through a consideration of the role of policy entrepreneurs in the policy advisory system. It also considers how policy entrepreneurs can potentially advance the evidence-based policy movement and explains the role of science and research in the policy entrepreneurship process.

Evidence-based policy refers to the incorporation of the results of systematic research – the evidence – into policy development (Head, 2008). Davies (2012) suggests that evidence can be used instrumentally, conceptually and symbolically in complementary ways throughout the policy process and under different policy and political circumstances. The presence of policy entrepreneurs in the policy formulation process can contribute towards successful evidence-based policy, as entrepreneurs obtain suitable evidence in a timely manner and point out to decision makers why the evidence is relevant and how it can be used in policy. Policy entrepreneurs, not being averse to new ideas and being willing to take risks, are prepared to quickly gather a body of evidence to support policy change. As outstanding communicators, they are able to explain the relevance of the evidence to a wide range of people and make a persuasive case to explain how and why it should be applied into policy.

Considering the practice of policy entrepreneurship as outlined above, we can see the relevance of evidence-based policy. New scientific findings can provide a valuable resource for policy entrepreneurs if they need to present themselves as experts on a given topic. Applying new knowledge to a policy problem can redefine an issue and help to build a new narrative advocating policy change.

As policy entrepreneurs seek to make the most persuasive case possible for their proposals, they will gather the knowledge to underpin their argument. This not only strengthens their case but also improves the quality of the policy being formulated; it also adds to the legitimacy of the proposals. Improving legitimacy also reduces uncertainty and risk, making the proposal more likely to win over supporters and ultimately be adopted (see Söderberg & Wikström, 2015, p. 613 for an example). The most effective policy entrepreneurs have the foresight to be able to identify, or even foster, the conditions in which advice will be regarded as useful, and can foresee how that advice will be used. Policy entrepreneurs can also use their knowledge of the policy process and the particular policy issue being formulated to package and present scientific advice in a way that makes it meaningful and relevant to a particular policy problem. As a result, policy makers may be more receptive to using evidence in formulating policy.

This increased likelihood of achieving influence provides strong incentives for policy

entrepreneurs to capitalize on evidence-based policy. Because policy entrepreneurs operate at the interface between policy formulation and the scientific and research communities, they are well placed to advance this agenda. Policy entrepreneurship can, therefore, help bridge the divide between policy and science and reduce the amount of time between the creation of new knowledge and its application into policy.

Policy entrepreneurs can play a large part in evidence-based policy as knowledge is mobilized through their entrepreneurial activities. We can see how policy entrepreneurship is a catalyst to evidence-based policy as knowledge is brought into the policy formulation process in innovative ways by persuasive actors who are prepared to take risks. The entrepreneurial flair that policy entrepreneurs bring to the evidence-based policy process, and the distinct motivations and methods of policy entrepreneurs – as compared with other actors in the policy process such as knowledge brokers or researchers – means that they can be regarded as a unique component within the policy advisory system.

For example, the study by Nay (2012) into the United Nations HIV/AIDS Secretariat shows how a policy entrepreneur with limited resources can capitalize on policy-oriented evidence to strengthen their influence. In this example, the policy entrepreneur does not have the capacity to undertake in-depth research, but overcame this limitation through entrepreneurial activities:

> it has succeeded in establishing an effective system for collecting, compiling, analysing and updating information on HIV/AIDS. It has pulled together numerous data collections and much policy-relevant knowledge from civil society, universities, private research institutes, national statistics institutes, other international organisations and the private sector. (Nay, 2012, pp. 66–7)

Different policy entrepreneurs use knowledge in different ways. Policy entrepreneurs can be policy actors with no direct involvement in the research process. For example, lobbyists or bureaucrats may selectively gather the outputs of research from a wide range of sources such as published reports or knowledge brokers. In these instances, only the outputs of research aligned to their policy goals may be selected. This is because some policy entrepreneurs may not be motivated by the simple desire to see new scientific findings applied into policy. Rather, they may selectively adopt data, or even manipulate how it is used, to ensure that the evidence is aligned with their policy goals.

Alternatively, scientists, researchers or experts may themselves be policy entrepreneurs. These individuals are more likely to be motivated by seeing their own research findings applied into policy. Some researchers may engage in policy entrepreneurship to give their research a stronger voice in policy making and to generate impact from their work. However, the transition from academic researcher to policy entrepreneur is not always straightforward, as the attributes and activities of the two groups can differ greatly (Maxwell, 2003; Young & Mendizabal, 2009).

The four examples below demonstrate the different ways that scientific and research evidence can be used in policy entrepreneurship. These instances identify some of the critical issues in the relationship between policy advice, evidence-based policy and policy entrepreneurship.

First, MacDonald (2015) contends that scientists are most influential when 'they can leverage their expertise by strategically co-opting institutionalized channels of advice which is most likely to occur on issues of high complexity and ambiguity when key policy makers are dependent upon scientists for their counsel' (MacDonald, 2015, p. 1). Through

a case study analysis of the nuclear test ban debate during the Eisenhower administration in the United States from 1954 to 1958, the research investigates how non-government experts can influence policy formulation. The study argues there are competing scientific communities of policy entrepreneurs, some of which are prevented from accessing key decision makers. Those excluded wait for an opportunity to undermine the credibility of the incumbent experts, with the intention of emerging to influence political leaders and change policy. In this example, the success of the pro-test ban scientists was owing to the role of policy entrepreneurs who used their social acuity, pre-established networks, prior relationships and strong sense of community to infiltrate the policy-making arena (MacDonald, 2015, pp. 19–20).

Second, experts were also found to be highly influential in a study of water rights policy change in the US state of Colorado by Crow (2010). The combination of entrepreneurship and expertise in water resource matters gave these actors an advantage and was a decisive factor in achieving policy change. This study highlights the power of evidence where 'policy entrepreneurs with specific expertise also had extraordinary influence over the policy process. The trust placed in these individual experts may help to explain their ability to so effectively promote policy change' (Crow, 2010, p. 312). Crow also discusses the implications of experts yielding such significant influence over policy change. While there are advantages associated with listening to experts, it is also important for policy makers to be wary of the influence these individuals may have on policy, as expert policy entrepreneurs may not always be motivated to increase public welfare. For example, some policy entrepreneurs may be highly influential yet unethical (Crow, 2010, p. 313).

The idea that policy entrepreneurs may not always be 'neutral' carriers of evidence is explored in another context, in the third example, by Rietig (2014). Through a study of the multilateral negotiations within the United Nations Framework Convention on Climate Change between 2009 and 2011, Rietig examines how scientific advice is used and identifies the conditions where 'expert input is most likely to be regarded by government representatives as useful and how government representatives use input provided by experts' (Rietig, 2014, p. 141). The study especially illustrates the importance of long-term involvement with, and a deep knowledge of, the policy subsystem and policy network. There is also a need to proactively approach government representatives and volunteer knowledge; by joining government delegations, policy entrepreneurs have improved access to policy making and can increase expert input. Interestingly, the study argues that experts are more influential when policy makers perceive them as trustworthy and 'neutral' actors (Rietig, 2014, p. 143). The study also reveals how policy makers interpret advice from outside government: civil servants predominantly used the scientific input instrumentally, seeing it as a 'neutral' input to improve understanding of technical issues, while politicians were more likely to engage with experts to help underpin their political objectives (Rietig, 2014, pp. 156–7).

Fourth, Palmer (2015) investigates the use of the selective adoption and manipulation of evidence by policy entrepreneurs in a study of the European Union's transport biofuels policy. This study harnesses the theoretical concepts of 'boundary work' (from science and technology studies) and 'framing' (from interpretive policy analysis) to advance understandings of the discursive techniques that policy entrepreneurs deploy to influence policy making. Boundary work refers to the rhetorical attribution of selected characteristics to the institution of science, in order to construct a social boundary that distinguishes

some intellectual activities as 'non-science'. Boundary work is powerful as it is used to 'distinguish between more or less authoritative sources of evidence and expertise upon which to base policy decisions, especially where the problems and solutions in question are complex or controversial' (Palmer, 2015, p. 273).

Framing is understood as a means of selecting, organizing, interpreting and understanding a complex reality to generate key messages for knowing, analysing and persuading. Framing seeks to bring clarity to policy debates by drawing boundaries around complex issues; it 'serves to render "knowable" not just problems, but also potential solutions to those problems, making the contingent and the contestable seem common sense and natural' (Palmer, 2015, p. 273).

Palmer's study illustrates how persuasive framing enabled the policy entrepreneur to influence agenda setting. Moreover, by defining a boundary between valid scientific and unscientific knowledge, the policy entrepreneur was able to determine the type of evidence upon which policy decisions were based. Manipulating policy advice in this way enabled the policy entrepreneur to justify and defend the existing policy settlement, despite widespread criticism (Palmer, 2015).

POLICY ENTREPRENEURS AND POLICY THEORY

This section explains how policy entrepreneurship can be embedded within theories that account for policy change. This is a valuable part of the chapter as it identifies where policy entrepreneurs are situated within more comprehensive accounts of the policy process. This section builds upon the approach introduced by Mintrom and Norman (2009), who successfully integrated policy entrepreneurship into theories of policy change. Continuing on this theme and drawing on recent examples, the remaining part of the chapter illustrates the compatibility between policy entrepreneurship and the theoretical approaches of multiple streams, advocacy coalitions, incrementalism and punctuated equilibrium, and neo-institutionalism.

Multiple Streams

The multiple streams framework put forward by Kingdon (1984 [1995]) seeks to explain why some policies gain attention at certain times while others do not. The framework comprises three 'streams': problems, policy content and politics, all of which flow independently and occasionally converge. Policy change is most likely to occur when the three streams are 'coupled', with change being dependent on the type of 'window of opportunity' that opens and the activities of policy entrepreneurs (Zahariadis, 2007, p. 79). Considering that policy entrepreneurs are the actors in this framework – linking the different streams at serendipitous moments – the framework is widely used in policy entrepreneurship research as a starting point or theoretical background (for example, Craig et al., 2010; Söderberg & Wikström, 2015). The framework has also been highly influential and the many studies incorporating the multiple streams have contributed towards a better understanding of policy entrepreneurship (for example, Blavoukos & Bourantonis, 2012; Romero, 2015).

In recent years, research on policy entrepreneurship has adapted the multiple streams framework as it has evolved beyond Kingdon's original theory. For example, Shroff et al.

(2015) suggest some adjustments in Kingdon's framework for agenda setting and policy adoption to help apply the ideas in different contexts. Meanwhile, Brouwer and Biermann (2011) argue that the development of policy streams and their coupling can be 'influenced and steered', meaning policy entrepreneurs can prepare for a window of opportunity to be opened. Moreover, research into policy entrepreneurs has explored factors that were underspecified in multiple streams, namely, the causal processes driving policy choices. There are two areas of particular interest to this chapter where the framework has been challenged and modified.

First is the assumption in Kingdon's original framework that policy entrepreneurs are only nation state-level actors. As the studies cited in this chapter show, policy entrepreneurs operate at all levels of governance. Second is the suggestion that policy entrepreneurs are focused on the agenda-setting stage of the policy process. Empirical studies show that the role of policy entrepreneurs goes well beyond coupling streams and setting agendas to operate throughout the formulation stage. For example, the case study by Oborn et al. (2011) found the activities of Professor Darzi extended well beyond those specified in the Kingdon model, particularly in terms of the translational role the policy entrepreneur played (Oborn et al., 2011, p. 342).

This example illustrates how policy entrepreneurs continue to translate and interpret policy problems beyond the agenda-setting stage. Activities include the development and refinement of policy options. Research such as this identifies how policy entrepreneurs play multiple roles in the various stages of the policy-making process, including facilitating legislative adoption. This means that studies of policy entrepreneurs that use the multiple streams model – albeit adapted – offer a range of insights into the policy formulation process.

Advocacy Coalitions

Advocacy coalitions are defined by Sabatier as 'people from a variety of positions (e.g., elected and agency officials, interest group leaders, researchers) who share a particular belief system – that is, a set of basic values, causal assumptions, and problem perceptions – and who show a nontrivial degree of coordinated activity over time' (Sabatier, 1988, p. 139). The advocacy coalition framework helps account for how ideas for change emerge from groups of people who coalesce around an issue and seek to ensure that policy develops in a particular direction.

Policy entrepreneurship does not explicitly feature within the framework. This shortcoming was addressed by Mintrom and Vergari's seminal work, which demonstrated how policy entrepreneurship and advocacy coalitions complement each other and make different contributions to understanding policy change. The authors identify, first, how advocacy coalitions have more explanatory power when they incorporate the role of policy entrepreneurs in building coalitions. Policy entrepreneurs can build advocacy coalitions through framing problems in ways that maximize opportunities for attracting coalition partners by showing how the interests of its members will be served by joining it. Second, the study shows how the advocacy coalitions framework benefits from appreciating the role of policy entrepreneurs in building coalitions and then networking within and around government to develop appropriate arguments for influencing decision makers during the formulation of policy (Mintrom & Vergari, 1996, p. 431).

In an empirical study, Smith et al. (2015) found that policy entrepreneurs with sufficient resources can shape the membership and direction of an advocacy coalition. In this research, the policy entrepreneur was the large corporation British American Tobacco, which worked to influence the European Union's 'Better Regulation' reforms. In this example, an invitation-only group was established within the broader coalition which allowed the policy entrepreneur to maintain greater control over the direction of policy formulation. British American Tobacco closely managed the mobilization of a coalition and shaped regulatory reform through the deliberate construction of a vaguely defined idea that could be strategically adapted to appeal to diverse constituencies. The study pointed to how policy entrepreneurs can amplify their influence over policy by skilfully exploiting the multiple points of influence within European Union policy making, while obscuring the interests involved in promoting particular policy ideas (Smith et al., 2015, p. 351).

Incrementalism and Punctuated Equilibrium

Punctuated equilibrium theory, originally developed by Baumgartner and Jones (1993), accounts for how political processes are generally characterized by stability and incrementalism, but occasionally produce large-scale departures from the past. A long period of stasis – the policy equilibrium – can be punctuated with policy realignments that change the status quo. Alternatively, incrementalism is the idea that policy change occurs slowly and gradually. Lindblom (1968) argues that considering the wide range of views among policy makers, unanimity is difficult to achieve, and policy is therefore the product of compromises whereby policy makers avoid risk. This results in incrementalism.

There is scope to consider the role of the policy entrepreneur within both of these conceptualizations of continuity and change in policy making. For example, Christopoulos (2006) investigates 'incremental entrepreneurial behaviour' in policy making, while evidence of the often incremental nature of policy entrepreneurship can be seen in Kaunert (2010) and Botterill (2013). Meanwhile, the punctuated equilibrium lens is applied in Romero's (2015) study of the role of policy entrepreneurship in civil service reform and Brouwer's (2015) research on policy entrepreneurship in water governance.

Mintrom's (2015) research on the governance of human embryonic stem cell research integrates both incrementalism and punctuated equilibrium in an analysis of policy entrepreneurship. This study identified how the work of policy entrepreneurs was crucial to a major shift in regulations to advance human embryonic stem cell research in the United Kingdom. Around the year 2000, there was a period of intense policy change that 'punctuated the longer period of policy equilibrium preceding it, and set the direction for future incremental policy changes' (Mintrom, 2015, p. 113). Interestingly, in this particular example, the speed of incremental change increased over time. This study not only reinforces how policy entrepreneurship is compatible with incrementalism but also points to the fact that the strategic pursuit of incremental change can allow policy entrepreneurs to achieve significant change, because it removes the potential opposition that would accompany the seeking of major change all at once (Mintrom, 2015, p. 114).

Neo-institutionalism

This chapter has identified how contextual and institutional factors can both facilitate or frustrate the opportunities open to policy entrepreneurs. Neo-institutionalist accounts of the policy process identify considerable space for policy entrepreneurship to take place. Understood as 'the rules of the game', institutions operate according to certain 'logics' which can account for when policy entrepreneurship may be inhibited. Over the last 30 years the neo-institutionalist literature has multiplied into numerous variants, each presenting their own view on institutional mechanisms (Hall & Taylor, 1996). Immergut (1998) explains that 'for all their differences, the several varieties of new institutionalists address a common set of problems from a unified perspective. All are concerned with the difficulties of ascertaining what human actors want when the preferences expressed in politics are so radically affected by the institutional contexts in which these preferences are voiced' (Immergut, 1998, p. 25).

Considering the importance of institutions to policy entrepreneurship, there is considerable scope for closer theoretical engagement with the growing neo-institutionalism literature. There are some examples of research drawing on both policy entrepreneurship and institutionalism. In a study of elections in Japan, Oka (2011) devises a methodology combining policy entrepreneurship and historical institutionalism. This biographical study accounts for how an individual policy entrepreneur, the influential Japanese politician Ozawa Ichiro, had a huge impact on political change – not only advocating but precipitating institutional change in the election system. In a further example, Lynggaard (2006) discusses the role of policy entrepreneurs and the applicability of several variants of neo-institutionalism – rational choice, sociological, discursive – to account for the dynamics of institutional change in a study of the European Common Agricultural Policy (Lynggaard, 2006, p. 67).

A more extensive theoretical adaption of neo-institutionalism to the study of policy entrepreneurship can be found in Bakir (2009). Bakir's application of policy entrepreneurship provides insights into debates within the institutional literature on normative and cognitive ideas and the processes by which ideas are conveyed and then explain institutional change (Bakir, 2009, p. 573). The research involves an analysis of ideas, discourse and interests to account for how long periods of institutional stability (equilibrium) are punctuated by crises that result in fundamental policy and institutional changes through policy and institutional entrepreneurship. In this study, policy and institutional entrepreneurs are defined as individuals who mobilize ideas, resolve conflicts and steer both policy and institutional change (Bakir, 2009, p. 572). Bakir also finds an analysis of policy entrepreneurs as actors operating within institutions in crisis conditions provides historical institutionalism with greater explanatory power (Bakir, 2009, p. 593). Applying the theory to an analysis of central banking reform in Turkey, the research finds 'institutional and policy innovation is more likely to occur when policy entrepreneurs with joint membership in domestic and transnational policy communities mediate various ideas and discourse within and among these communities in a punctuated institutional equilibrium' (Bakir, 2009, p. 593).

CONCLUSION

The policy formulation stage provides extensive scope for policy entrepreneurs to exert influence on defining the agenda, developing viable proposals and ensuring authorization. This chapter has explained how policy entrepreneurs take up a cause, make it part of the political agenda and achieve policy change. In doing so, it has offered insights into the main factors that promote and prevent policy entrepreneurship. Policy entrepreneurs have the potential to make a substantial contribution to the formulation of evidence-based policy, but can also affect the process in more negative ways, including through manipulating evidence. This chapter has also demonstrated a high level of compatibility between policy entrepreneurship and theories of policy change. Policy entrepreneurship is best understood when analysed within the wider context of policy making. The application of policy theory, as outlined here, provides a framework to achieve this, as well as structure substantial analyses of policy entrepreneurship.

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PART V

FORMULATING POLICY PROBLEMS

17. Issue expertise in policymaking[1]
Peter J. May, Chris Koski and Nicholas Stramp

INTRODUCTION

Among other sources of the seemingly endless supply of information in policymaking, the bureaucracy has historically been considered a privileged information source. In recognizing the growth of alternate information sources, public administration scholars have questioned the extent that United States (US) policymakers rely on the bureaucracy for issue expertise. Francis Rourke (1991) first observed how the rise of public interest and other advocacy groups challenges the role of bureaucratic expertise in policymaking. In extending Rourke's observation, Robert Durant (1991, p. 471) argues that bureaucratic influence has been transformed as 'actors are more numerous, expertise is more diffused, and conflict is more rampant'. Similarly, Lee (2013, p. 690) argues that 'the monopoly of bureaucratic expertise has been undermined as interest groups have significantly developed and are professionalized'.

In setting forth an agenda for research on an information processing theory of policymaking, Workman et al. (2009) call for empirical research about the role of the bureaucracy as an information conduit for policymaking. More generally, different sources of information tend to be lumped together in addressing how policymakers process an oversupply of information (Jones and Baumgartner, 2005). Our examination of issue expertise in policymaking helps to unpack these by getting at differences in the supply and types of information in policymaking. Consideration of this also extends thinking about sources of expertise beyond scientific and research experts (Weible, 2008), as advanced with recent scholarship concerning the political economy of expertise in American policymaking (Esterling, 2004; Hall and Deardorff, 2006; Bertelli and Wenger, 2009; Gailmard and Patty, 2013).

Four sets of issues need to be addressed when considering bureaucratic and other sources of issue expertise in policymaking. One is the nature of expertise as it relates to substantive knowledge about a given set of issues. The literature on expert-based information in policymaking highlights the importance of credibility (Howlett, 2009; Montpetit, 2011) and objective knowledge of issues (Keller, 2009). Simply labelling oneself an expert or having academic credentials or an affiliation with a think tank or other seemingly authoritative organization does not guarantee expertise for a particular set of policy issues. Talk shows and other media are full of pseudo-experts. In this regard, an important distinction can be made between issue expertise as it relates to substantive knowledge of problems and solutions and other forms of information provision. The latter include drawing attention to issues and reporting on the status of conditions or actions to address a problem.

A second issue concerns potential sources of expertise. The growth of think tanks, advocacy groups, analytic organizations and other information sources suggests a variety of sources of information that run the gamut of issue advocacy, reporting and

issue expertise. As such, it is inappropriate to think of a distinguishable category of experts without considering the issues at hand and the nature of the information being provided. This is a central point of Esterling's (2004) study of 'public-interested policy expertise' (p. 10) in which he portrays the provision and use of information by interest groups as highly contingent (also see Hall and Deardorff, 2006). Issue expertise may come from those in academic settings, the bureaucracy, industry, professional associations and think tanks, among other sources. At the same time, individuals from such organizations who seek to influence policymaking do so through a combination of issue advocacy, informational reporting and substantive advice about problems and solutions. Not all instances of information provision can be considered provision of issue expertise.

A third issue concerns the availability of issue expertise. Despite the explosion of information sources in policymaking, not all problems have a ready-made supply of issue experts who are willing and able to add helpful information in terms of problem definitions or policy solutions. Theories about interest involvement suggest that the demand and supply of issue expertise is shaped by issue salience and issue niches (Gray et al., 2005; Leech et al., 2005). Issues with low political salience often generate insufficient political attention to motivate a supply of information from advocacy organizations, thereby privileging bureaucratic expertise in policymaking for such issues (May, 1991). Different groups and, by extension, different types of issue expertise are drawn into policy discussions as issues gain prominence and have demonstrated material and other interest-specific consequences. As issues demand attention, those with the largest stakes at hand are drawn into policy debates. Who these are depends on the specifics of the issues.

A fourth issue is the degree to which issue expertise helps advance policymaking. One of the underlying assumptions of expert-based policymaking is that expertise is a harmonizing force – that is, policy expertise moves policy discussions from unfocused debates about what a policy is or should be to more focused debates about components of particular policies. However, this assumption does not necessarily apply in cases where different experts disagree (Weible, 2008; Keller, 2009; Montpetit, 2011) or when experts are called upon to testify in multiple venues about the same problem.

These four sets of issues frame our investigation of issue expertise in policymaking. We address the sources of expertise in policymaking for a particular issue area with attention to how information sources differ in terms of types of information, issue sub-areas and across different venues. We develop these considerations further by providing specific hypotheses about each. Our empirical investigation is based on data about information provision for a policy area – Critical Infrastructure Protection (CIP) – for which bureaucratic expertise can be expected to dominate policymaking. CIP concerns the security of key resources held by public and private entities critical to American security, the economy or way of life (US Department of Homeland Security, 2006, 2009). The distinction between non-cyber-related CIP issues and cyber-related CIP issues is useful for examining the consequences of differences in the availability of issue expertise. The former have a less developed supply of interest organizations and issue engagement, while the latter have drawn greater attention among industry and other organizations.

HYPOTHESES ABOUT ISSUE EXPERTISE IN POLICYMAKING

The preceding introductory comments draw attention to different considerations about issue expertise in policymaking. The following hypotheses sharpen these with attention to the roles of bureaucratic expertise, different issue sub-areas and venues.

Bureaucratic Expertise and Policymaking

(H1): Bureaucratic expertise dominates other sources of expertise.

Issue experts are called upon by committees in Congress both to help diagnose problems and to offer potential solutions. Two contending views exist with respect to the pervasiveness of bureaucratic expertise in this setting. One is that the bureaucracy has both a defined role and advantages as a source of issue expertise. More than mere implementers of policy, the federal bureaucracy serves as the 'antennae of government' – to use Workman's (2014) depiction of the bureaucracy in monitoring issue areas and calling attention to emergent problems (also see Palus and Yackee, 2013). From this perspective, bureaucrats are credible sources of expertise with well-established relationships with different congressional committees who serve as conduits of information.

Miller's (2004) research about the criminal justice subsystem provides support for the dominance of bureaucratic actors, finding a strong presence for 'federal, state and local criminal justice bureaucrats' at crime-related congressional hearings (30–40 percent of all witnesses) with much less involvement from citizen or community groups. In illustrating a more substantive role for bureaucrats in policymaking, Christensen (2012) discusses how neo-liberal tax reform in the 1980s and 1990s in New Zealand was facilitated by 'autonomous bureaucratic action' that involved bureaucratic articulation of key ideas and advocacy for their adoption.

A counter to the bureaucratic dominance hypothesis is that the proliferation of advocacy organizations, think tanks, professional associations and other information provides a set of voices that can drown out the bureaucracy in policymaking (Durant, 1991; Rourke, 1991). Research by Baumgartner et al. (2009) suggests a status quo bias for interest-group involvement in different policy areas with long-standing patterns of involvement in congressional policymaking. Given the endogenous relationship between the demand for expertise in policymaking and the development of it within the bureaucracy, Gailmard and Patty (2013) point to a differentiated use of the expertise provided by federal agencies. As such, there is plenty of reason to question the dominance of bureaucratic expertise.

In addressing this hypothesis, it is important to remember that not all information provision consists of expert advice about policy problems and solutions. The evidence for the dominance of bureaucratic expertise needs to show both greater frequency of information provision and expertise about problems or solutions. It also requires provision by agencies with purviews that are central to CIP.

Issue Differences and Expertise

(H2): The demand for and supply of issue expertise differs among issues.

Two perspectives about how different types of expertise get drawn into policy debates are relevant. One is a supply-side perspective that suggests policymakers call upon regular networks of actors who have had sustained issue involvement over time. Those actors can be expected to differ among issue areas given the different issue niches of various groups (Kollman, 1997; Baumgartner and Leech, 2001). As such, the use of expertise can be expected to vary given historic differences in issue involvement among academics, bureaucracies, professional associations and think tanks. As the supply of expertise accumulates, by definition there is a greater store of knowledge about problems and solutions.

A second, demand-side perspective considers how groups are drawn into policy debates. From this perspective, groups and, by extension, different types of issue expertise are drawn into policy discussions as issues gain prominence and have demonstrated material and other interest-specific consequences (see Gray et al., 2005; Leech et al., 2005). This is also central to Bertelli and Wenger's (2009) explanation of the formation of think tanks as sources of expertise for policymaking. As issues demand attention, those with the largest stakes at hand are drawn into policy debates.

How these supply and demand considerations play out depends on the issues at hand. Long-standing, more salient issues will have engaged a diversity of interests and thus are more likely to have a ready supply of issue experts. Less salient issues will not have engendered sufficient demand to generate a diverse supply and thus are likely to have a more limited bullpen of issue expertise. As elaborated in our case discussion, we expect to see more extensive and broader issue expertise surrounding cyber-related CIP issues than CIP issues that are not cyber-related. The former issues have been more salient, fostering a greater demand for expertise that has resulted in deeper engagement of a range of industry and other groups. Because of the lower salience of the issues, issues that are not cyber-related are expected to have generated less extensive bases for issue expertise than cyber-related issues.

Policymaking Venues and Hyper-expertise

(H3): Policy consistency is enhanced by repeat players across different venues.

Expertise is not necessarily a harmonizing force that advances consistency in policymaking. Experts differ in their diagnosis of problems and prescriptions for solutions. Also, different categories of witnesses with different takes on problems and solutions are called upon to testify in different venues. Congressional committees have unique purviews and long-standing ties to actors who may not be policy-specific experts, but rather are committee-specific experts. As these individuals provide different ways of looking at problems and solutions, the involvement of an array of experts does not in itself lead to convergence on problems or solutions.

What then provides the bases for consistent problem formulations and solutions? We view the realm of expert-based policymaking as including repeat players who are called upon in different venues and at different times to address the problem at hand. Such hyper-experts who are called upon to inform policymaking in multiple venues over time are key sources of policy convergence. This is particularly true when other voices provided by interest groups, state and local officials and so on are not present in policy debates. Hyper-experts gain a reputation as the go-to experts for issues related to specific

policies over time because of their repeated appearances, further strengthening their role in defining and informing policymaking.

Our hypothesis suggests that hyper-experts who repeatedly inform policymaking over time are the glue holding policies together. However, this is not simply a function of the presence of hyper-experts. The type of information they offer policymakers is critical. Simply reporting about the current status of a problem or of efforts to address it provides a limited basis for coherent policy development. Hyper-experts who provide consistent views about policy problems and their solutions across different venues provide a stronger basis for coherent policy.

With respect to the CIP case, we expect hyper-experts for cyber-related CIP issues to be more evident than for CIP issues that are not cyber-related. Cyber infrastructure protection is more narrowly defined and has more specific stakeholders than physical infrastructure protection. The community of experts for cybersecurity includes a number of influential individuals and firms that form the basis for hyper-expertise. In contrast, the expertise for non-cyber CIP is more diffuse across a gamut of different types of physical infrastructures involving a wide range of different types of entities that own or manage infrastructure.

OUR CASE: CRITICAL INFRASTRUCTURE PROTECTION

Problems surrounding CIP provide an instructive issue setting for considering issue expertise in policymaking. Our choice of this topic is the result of a research opportunity we had to consider the dynamics of policymaking for CIP as an example of a diffuse risk that presents numerous challenges for designing and implementing coherent policies. The public for CIP policy is largely non-existent. As a consequence, there are very few grassroots political demands from community and other interest-group stakeholders that typically influence public policy. Given this vacuum, issue experts who are normally drowned out or subsumed by organized interests are more relevant for policymaking.

At the same time, the susceptibility of the nation's physical and cyber infrastructure to attack, natural disaster or technological failure is a potential concern to a diverse set of financial firms, utilities, cyber-dependent businesses and infrastructure owners and managers. These concerns provide a basis for demands for information to address threats and a foundation for a supply of issue expertise beyond bureaucratic expertise.

The formal definition of critical infrastructure found in the USA PATRIOT Act (P.L. 107-56) is 'systems and assets, whether physical or virtual, so vital to the US that their incapacity or destruction would have a debilitating impact on national security, national economic security, national public health or safety, or any combination of those matters'. As suggested by this definition, critical infrastructures are very diffuse in that they span the country, entail many different sectors of activity and include a vast array of natural and human-caused risks of disruption. Threats to critical infrastructures broadly fit the notion of low salience policy issues given the dispersed nature of the risks, the inability to pinpoint likely disruptions in advance, the low probability of catastrophic events and the general lack of awareness among broader publics of the threats.

A distinction can be drawn between non-cyber-related CIP issues and cyber-related CIP issues. Non-cyber-related threats concern physical threats to critical facilities and

infrastructure – bridges, railroads, airports, ports and so on – posed by human-caused disruptions, such as bombs or sabotage, along with disruptions from failed, ageing infrastructure or natural catastrophes. The probability is low that any one failure in critical infrastructure will directly affect particular individuals. Yet, the interdependence of the infrastructure systems ensures that small events can lead to broader consequences. While individual, catastrophic events like the 2007 collapse of the Mississippi River Bridge in Minneapolis, Minnesota draw media and public attention, broader issues concerning physical infrastructure are of low salience to mass publics. Public opinion polls after the introduction of the 2009 economic stimulus legislation showed strong support among the public for investing in infrastructure projects as a means of job creation.[2] However, the foci of these polls was the economy rather than infrastructure per se.

Cyber-related CIP issues relate to computer-based network reliability and the network security of various industrial facilities, banking systems, utility systems and computer systems. The diffuseness of these risks and the limited understanding most people have about them contributes to the inattention of mass publics to these concerns. Yet, from time to time, the realities of threats to cybersecurity have impacted many individuals and have raised broader implications for the functioning of power grids, nuclear power plants, manufacturing and other critical systems. In these respects, the threats to cybersecurity have elements of individualized risk (e.g. individual computer outages) and diffuse risks (e.g. systems failures).

As more individuals have become aware of the potential harms to them, cybersecurity risks have been transformed over time from an issue with limited publics advocating for interventions to, at the time of our study, one with stronger interest engagement drawn mainly from the information industry. This evolution of interest involvement began with concerns about the Year 2000 (Y2K) computer transition and has occurred more recently with concerns about malware and widespread cyber attacks from foreign countries. The mass public salience of these issues is evident from the results of various public opinion polls.[3] Some 40 percent of the respondents to a Gallup/CNN/USA Today poll in December 1999 thought there would be major problems as the result of the Y2K computer issue. Concerns about identify theft and banking were registered in polls as early as 1995. More than two-thirds of respondents to a November 1995 Gallup/US News and World Report/CNN poll reported they would be very worried about the security of their money if they banked by computer. By 2005, 90 percent of respondents to a similar poll reported they are somewhat or very concerned about identity theft.

In drawing the distinction between non-cyber and cyber-related issues, the CIP case is representative of the two realities that undergird our hypotheses. One, which fits non-cyber CIP, is of limited attention and development of sources of issue expertise. The second, which fits cyber-related CIP, is greater attention and a fuller range of issue expertise.

RESEARCH APPROACH, DATA AND MEASURES

We traced the involvement of different types of expertise in congressional hearings about CIP issues. We emphasized Congress as a policymaking venue for both theoretical and practical reasons. The theoretical reason is the role of Congress as a focal point for policymaking. The practical aspects relate to the ability to trace the role of different groups

and types of experts in congressional hearings. Although congressional scholars disagree about the purposes of hearings, we argue that gaining consensus about problems and solutions is especially important for problems marked by high policy uncertainty. Kingdon (1981, pp. 284–8) long ago noted that decision-making in Congress is motivated by a search for consensus in order to reduce each member's political and policy uncertainty (also see Krehbiel, 1991, pp. 66–70; Diermeier and Feddersen, 2000; Sheingate, 2006).

Data for Studying Issue Expertise

We constructed data sets about issue expertise for critical infrastructure issues over the period 1995 through 2009. We chose 1995 as a starting point in order to reflect the increased attention to the threats to critical infrastructure that began in the mid 1990s following the 1993 World Trade Center bombing, the 1995 bombing of the Oklahoma City Murrah Federal Office building and the 1995 Tokyo subway nerve gas attack. President Clinton formed a commission to study critical infrastructure in 1996, and the President's Commission on Critical Infrastructure Protection issued its report in 1997. The end date for our data was dictated by the availability of transcripts of congressional hearings at the time of our data collection, which lag actual hearings in their production.

Our primary data are a coding of issue content and witness appearances at congressional hearings. Keyword searches were undertaken using the LexisNexis congressional hearing database. Our vocabulary was based on terminology employed as part of relevant government National Critical Infrastructure Protection plans (US Department of Homeland Security, 2006, 2009), Congressional Research Service reports (Moteff, 2010) and academic literature. This led to the identification of 19 keyword search terms.[4]

This search initially yielded 750 hearings that included duplicates identified with multiple search terms. We first removed the duplicates and hearings by the 9/11 Commission that were unrelated to CIP. Recognizing the imperfections of keyword searches, we next had research assistants evaluate each hearing for relevance to CIP, focusing on those hearings related to physical and virtual infrastructures that are essential for the functioning of society and the economy.[5] This process also excluded hearings with general mentions of infrastructure, such as routine road improvements; hearings addressing general information security issues, such as identity theft; and hearings concerned with broader emergency management issues not explicitly dealing with the security of emergency management networks or some other aspect of critical infrastructure. We also excluded 38 appropriations-related hearings, since these did not deal with substantive issues around CIP and would bias expertise in favour of agency officials. The end result is a data set comprised of 204 hearings, including 162 held in the House, 39 held in the Senate, and three joint hearings; 56 percent of the hearings addressed cybersecurity issues.

Using witness lists of those individuals who appeared at the hearings, we categorized the witnesses into different groups of interests. This approach to identifying witnesses has been employed by policy process scholars in studying agenda change (see Baumgartner and Jones, 1993), interest-group alignments in different policy areas (see Worsham, 2006) and the involvement of different interests in shaping policy in particular policy areas (see Miller, 2004; Zafonte and Sabatier, 2004). Although we recognize that congressional hearings are orchestrated and generally biased towards involvement of interests with established relationships (see Leyden, 1995), these biases are central to our research in

getting at the types of expertise that are involved in addressing issues for which broader publics do not exist.

We identified 1151 witnesses appearing at the congressional hearings in our sample. Based on the witness titles and organizational affiliations, we categorized each individual according to a coding scheme that originally delineated 18 types of interests.[6] For the analyses of issue experts that follow, we excluded congressional and special commission witnesses (16 individuals) and White House staff witnesses (23 witnesses), given that these types of witnesses had very different roles than our focus on issue expertise. This left 1112 witness appearances for our analyses, recognizing that some of the same witnesses appeared more than once.

Of these, we were able to obtain transcripts for 916 witness testimonies from the LexisNexis congressional database. We coded the content of testimonies with respect to the purpose of the testimony as having an informational, problem or solution focus; the specificity of the problem and solution focus, if present (general or specific treatment); and the extent to which a given testimony appeared to be self-serving, as in the case of a firm advocating for their products. We used this information to get at the nature of expertise and how it relates to problems and solutions for critical infrastructure issues.

Measures

Using these data sources, we derived the following sets of measures.

Hearing focus. Each hearing was coded as either focusing on cyber-related CIP issues or non-cyber-related CIP issues. We used this distinction to characterize differences in involvement of different sources of issues for the two issue areas.

Sources of issue expertise. This is a nominal classification of those who testified into five broad groups: federal agencies, state and local government, business and industry, non-business interests and research experts. This is a reclassification of our original coding of 18 categories of interest. We also categorized expertise from federal agencies as falling within the 11 categories of agencies listed below in our findings. We used these categorizations to show the distribution of witness appearances across different sources of expertise.

Issue-focused expertise. We considered expertise to be issue-focused if a given testimony addressed a substantive problem, solution or both, rather than simply providing information about what an agency or entity is doing with respect to a given problem. We classified testimonies as being issue-focused or not based on a coding of the content of witness testimonies.

Research assistants read each testimony and coded whether the majority of the testimony primarily concerned an informational, problem or solution focus.[7]

Ranking federal officials. This is a nominal coding of federal bureaucrats who testified, distinguishing those who are of high rank from others. We designated ranking officials generally as those who were heads or deputy heads of agencies and, because of differences in agency structures, we designated specific titles for different types of agencies that constitute ranking titles.[8]

Hyper-expertise. We coded how many times a particular witness testified across all of the hearings in the data set. Those who testified multiple times were considered hyper-experts.

FINDINGS: ISSUE EXPERTISE AND POLICYMAKING

We present findings regarding our hypotheses based on analyses of the data we collected for hearings about CIP issues that were held from 1995 through 2009. The analyses and discussion of findings are organized around each of the hypotheses. The unit of analysis for the first two sets of findings is a witness appearance, with attention to the types of witnesses. The unit of analysis for the third set of findings is each individual witness, with attention to the number of times each appears as a witness.

Dominance of Bureaucratic Expertise

Our findings about the involvement of different categories of issue experts in testifying about CIP issues are shown in Table 17.1. We draw an important distinction in the two columns of the table between who testifies (the distribution of witnesses) and what they testify about (issue-focused testimony). The latter consists of the percentage of those who specifically testified about aspects of the problem or solution, as opposed to more general testimony reporting what their agency or organization has done to address aspects of CIP.

Consistent with our first hypothesis about the dominance of bureaucratic expertise, as shown in the first column of Table 17.1, the major contributors to the discussion of CIP issues are federal agency personnel. This is in keeping with the previous findings about reliance upon bureaucratic information in congressional hearings. As CIP programmes

Table 17.1   Issue expertise

Category	Percentage distribution*	Percent issue-focused[†]
Federal agencies	37	19
Business and industry	26	54
Research experts[‡]	19	67
Non-business interests[§]	13	76
State and local government	5	35
Total/overall[¶]	100	45
Number of witness appearances[‖]	1112	916

Notes:
*Percentage distribution of witness appearances among the designated categories.
[†]Percentage of those testifying with testimony that had a problem or solution focus rather than informational focus.
[‡]Includes research and academic experts, consulting firms, think tanks and non-governmental research organizations.
[§]Includes governmental, professional and other associations and public advocacy groups.
[¶]Total percentage of testimony with an issue focus.
[‖]Missing testimonies account for the difference in number of witnesses.

Source: Compiled by authors.

are administered by and largely funded through the Department of Homeland Security, it is not surprising that federal personnel comprise the largest category of witnesses. Given the significance of cyber-related CIP issues to business and industry, it is also not surprising that representatives of firms and industry associations are relied upon relatively extensively to offer testimony. Curiously, representatives of state and local governments – identified in CIP planning documents authored by the US Department of Homeland Security (2006, 2009) as a key group for non-cyber-related CIP programmes – have relatively limited presence in CIP hearings.

A different picture emerges, however, when considering what witnesses testify about, as shown in the second column of Table 17.1. Witnesses from non-governmental entities have a much stronger issue focus on problems or solutions than those from the federal bureaucracy. Instead of assessing problems and offering solutions, our data show that governmental actors, be they federal, state or local personnel, largely provide information about existing programmes or descriptions of what their agencies are doing to address CIP problems. In contrast, the issue expertise provided by non-business interests (comprised mainly of representatives of governmental, professional and other associations) and research experts (comprised of research and academic experts, consulting firms, think tanks and non-governmental research organizations) dominates the substantive contributions to understanding problems and solutions. In a sense, the governmental personnel provide the broad context while the others provide the specifics.

Considering that the federal CIP partnership encompasses virtually all federal agencies (see US Department of Homeland Security, 2006, 2009), the examination of testimony by personnel from different federal agencies provides a window into differences among federal agencies in the expertise they offer. As shown in Table 17.2, the preceding broad characterization of witness appearances by personnel from federal agencies masks variation among these agencies. Here, we draw a distinction among the distribution of witnesses from different federal agencies, the percentage of those who testify who are ranking agency officials, and the percentage of those who specifically testified about aspects of the problem or solution. We surmised from our review of testimonies that ranking officials were more likely to provide general testimony reporting on agency activities rather than more issue-focused testimony. This is evidenced by a Pearson correlation between the last two columns of -0.36.

A notable finding is that witnesses from the Department of Homeland Security, who by far have the largest presence in congressional testimony, offer among the least issue-specific testimony. This also is the case for witnesses from the Department of Defense, who tend to report on efforts to physically secure defence facilities and avert cyber attacks rather than suggest new problem diagnoses or new solutions. In contrast, nearly 50 percent of the testimony of personnel from the State Department, Treasury, General Services Administration and Justice Department is issue-focused in addressing aspects of CIP problems or solutions.

While some of these results are artefacts of a small number of witness appearances (as for the General Services Administration), the differences in testimony are evident from our perusal of individual statements. Personnel from the Department of Homeland Security and the Department of Defense, including both top officials and programme personnel, tended to report on the status of CIP programme development and programmatic

Table 17.2   Federal agency expertise

Federal agency	Percentage distribution*	Percent ranking official†	Percent issue-focused‡
Homeland Security	27	15	13
Justice	12	6	46
Defense	9	19	7
Energy	9	29	35
Commerce	6	44	17
State	5	0	70
Transportation	6	0	18
Treasury	3	31	57
General Services Administration	2	0	50
Other cabinet level§	4	29	17
Other non-cabinet level¶	16	22	27
Total percentage/overall percent‖	100	18	19
Number of cases**	408	72	66

Notes:
* Percentage distribution of witness appearances among the designated categories for agencies with ten or more witness appearances.
† Percentage of witnesses from cabinet-level agencies with titles of Secretary, Deputy Secretary, Under Secretary or equivalent titles and from non-cabinet level and independent agencies with titles of Administrator or Director, Deputy Administrator or Deputy Director, Commissioner or Chairman.
‡ Percentage of those testifying with testimony that had a problem or solution focus rather than informational focus.
§ Includes Agriculture, Education, Health and Human Services, Interior and Labor.
¶ Includes Environmental Protection Agency, Federal Trade Commission, NASA, National Science Foundation, Nuclear Regulatory Commission, US Postal Service, CIA and NSA.
‖ For the last two columns, the total percentage of ranking officials among all witnesses and percent of testimony with an issue focus.
** Number of witness appearances and/or testimonies for relevant columns.

Source: Compiled by authors.

needs. In contrast, personnel providing issue-specific testimony from other agencies tended to draw attention to how threats to critical infrastructures present novel problems (e.g. national security issues for State Department officials, banking security for Treasury officials, safety of public facilities for the General Services Administration, and privacy and other legal issues for the Justice Department) and require specific steps to mitigate those problems.

Issues and Expertise

We hypothesize that the types of expertise called upon by policymakers vary based upon the extent to which there is an extant supply of experts or a demand for expertise. As explained above, we expect to see more extensive and broader issue expertise surrounding cyber-related CIP issues than non-cyber-related CIP issues. The former issues have been more salient, fostering a greater demand for expertise, and have a basis for a greater supply of business and industry engagement.

Table 17.3   Cyber versus non-cyber issue expertise

Categories	Witness percentage distribution*	
	Cyber-related hearings	Non-cyber-related hearings
Federal agencies	37	36
Business and industry	31	20
Research experts[†]	21	16
Non-business interests[‡]	9	18
State and local government	2	11
Total	100	100
Number of witness appearances	667	445
Distribution comparison[§]	$\chi^2 = 66.87$, p < 0.00	

Notes:
* Percentage distribution of witness appearances among the designated categories for cyber- and non-cyber-related hearings.
† Includes research and academic experts, consulting firms, think tanks and non-governmental research organizations.
‡ Includes governmental, professional and other associations and public advocacy groups.
§ Comparison of the witness percentage distributions for cyber- and non-cyber-related hearings.

Source: Compiled by authors.

Table 17.3 displays the distribution of witness appearances for cyber- and non-cyber-related hearings. As with the overall findings reported above, federal agency personnel constitute the largest category of those testifying.[9]

Table 17.3 also displays evidence of the supply-side effects of cyber-related policymaking by showing a stock of business, industry and research experts for addressing cyber-related issues. The effects of a more diffuse demand for addressing non-cyber-related issues are evidenced by the wider distribution of witness appearances for this category of hearings. In comparison with the cyber-related hearings, we note the greater involvement of non-business and state and local government interests in non-cyber-related hearings.

Table 17.4 addresses differences in the content of testimony in drawing attention to the extent to which cyber- and non-cyber-related testimonies deal with problems or solutions rather than simply report information about activities. Here, the main differences are the larger percentage of research experts providing issue-specific testimony for cyber-related issues and the larger percentage of non-business interests providing issue-specific expertise for non-cyber-related issues. The more extensive issue focus of experts for cyber-related issues is intuitive given the stronger supply of experts and the long-standing involvement in addressing these issues. The findings for non-business interests are, at first glance, more puzzling.

Digging into the specifics of some of the non-business-related testimony helps to show what is involved. One example of issue-focused testimony from a non-business group comes from Danielle Brian, the executive director of the non-profit Project on Government Oversight. The mission of this group is to investigate government corruption and fraud, but the group also acts as a general watchdog on other governmental operations, such as safety. Ms Brian called attention to specific problems related to the

Table 17.4   Cyber versus non-cyber issue foci

Categories	Percent issue-focused witness testimonies*	
	Cyber-related hearings	Non-cyber-related hearings
Research experts[†]	72	58
Non-business interests[‡]	67	82
Business and industry	51	59
State and local government	33	35
Federal agencies	17	22
Overall[§]	44	47
Number of witness testimonies	533	383

Notes:
* Percentage of those testifying with testimony that had a problem or solution focus rather than informational focus for cyber- and non-cyber-related hearings.
† Includes research and academic experts, consulting firms, think tanks and non-governmental research organizations.
‡ Includes governmental, professional and other associations and public advocacy groups.
§ Overall percentage of those testifying with testimony that had a problem or solution focus rather than informational focus.

Source: Compiled by authors.

management of the federal protective service and vast amounts of overtime used at Department of Energy research facilities in a hearing held in 2005 before the subcommittee on National Security, Emerging Threats and International Relations. Other examples of detailed testimonies about problems and solutions concerning non-cyber-related issues by non-business interests are provided by the testimonies of the President of the Airline Pilots Association International regarding TSA screening procedures and a representative of the US Public Interest Research Group questioning specific components of infrastructure protection related to chemical facilities.

A different way of considering issue differences is a comparison of the testimonies of the traditional category of research experts – academic experts, consulting firms, think tanks and non-governmental research organizations – who constitute a primary source of issue-focused expertise. Table 17.5 shows the distributions of the content of testimony by these experts while taking into account differences in cyber- and non-cyber-related testimonies.

Two sets of findings are of interest in this table. One, as shown in the first column, is the greater frequency of problem-oriented testimony for cyber-related hearings. This likely reflects the generally emergent and changing nature of the concerns about cyber issues for which grappling with the nature of the problem is foremost. In contrast, a second key finding shown in the middle column is that witnesses at non-cyber-related hearings tend to emphasize information provision. Our reading of testimonies shows this consists of reporting on an entity's activities or providing broader commentary about the efforts of the research and academic community to study infrastructure failures. Given the greater frequency of cyber-related hearings, the problem-oriented focus among all hearings, shown in the last column, is the dominant one for testimonies by research experts.

Table 17.5   Research expert witness testimony: cyber versus non-cyber

Categories of testimony	Percentage distribution of witness testimonies*		
	Cyber-related hearings	Non-cyber-related hearings	All hearings
Informational[†]	28	42	33
Problem oriented[‡]	48	31	42
Solution oriented[§]	25	27	26
Totals	100	100	100
Number of witness testimonies	109	59	168
Distribution comparison[¶]	$\chi^2 = 5.38$, p $= 0.07$		

Notes:
*Percentage distribution of witness testimonies among the designated categories of testimony for cyber- and non-cyber-related hearings.
†Reporting about the activities, efforts or nature of work of a given agency, organization, association or firm.
‡Calling attention to the vulnerabilities, concerns or other aspects of critical infrastructure or cyber-related problems.
§Suggesting ways for addressing the vulnerabilities, next steps to be taken, revisions to proposed legislation, needed actions, changes in roles or other aspects of solutions.
¶Comparison of the percentage distributions for cyber- and non-cyber-related hearings.

Source: Compiled by authors.

However, as this table shows, the overall finding masks differences in the maturity and salience of issues – two sets of considerations that shape the content of witness testimonies.

Venues and Hyper-expertise

A small but important segment of expertise concerns those individuals who testify in multiple hearings across subcommittees, over time with the same committee, or both. Such hyper-expertise is important as a way of providing consistent messages about problems and potential solutions for complex problems like CIP. In all, 80 percent of all witnesses who testify about CIP issues only testify once. Typically, a witness is brought in to describe a problem, solution or what is currently being done with respect to the issue discussed at the hearing and is not seen again for that or other hearings. This pattern is particularly evident for the state and local government category, with 86 percent of those witnesses only appearing once. This demonstrates the episodic involvement of this interest community for which there is little basis for a consistent position. Federal agency witnesses are not far behind, with 75 percent appearing only once and 17 percent appearing twice.

Less than 5 percent of witnesses in a given category testify more than three times, with the notable exception of research experts. A total of 9 percent of the witnesses in the research expert category testified on three or more occasions and 7 percent testified on five or more occasions. These witnesses included several academics and think tank experts. One notable expert, Richard Pethia, is a professor at the CERT Center at Carnegie Mellon University.[10] Pethia's ten testimonies before committees between 1996 and 2003 focus primarily on emerging cyber threats, such as the Melissa worm, and recommending steps

government should take in order to keep the nation's critical infrastructure secure. Pethia brings a consistent message of the urgent need to invest in additional cybersecurity to each hearing and seems to have become a trusted source for detailed information about the impact of the many computer viruses and worms since cyber threats were just beginning to emerge.

The only other witness category with a significant proportion of repeat witnesses is business and industry, for which 3 percent of witnesses appeared in five or more hearings. These individuals represent well-known technology companies including eBay, Microsoft and VeriSign, as well as technology and financial services industry groups. One prominent group is BITS, which is part of the Financial Services Roundtable.[11] Catherine Allen, then CEO of BITS, testified eight times between 1999 and 2007. Four other business representatives also testified on behalf of BITS. More than half (62 percent) of testimonies by BITS representatives were issue-focused.

As anticipated, we find more hyper-expertise in cyber-related hearings than non-cyber-related hearings. In all, 75 percent of testimonies from witnesses appearing more than three times are for cyber-related hearings. The non-cyber hearings address a more diffuse set of issues for which the vast majority of repeat witnesses are Department of Homeland Security officials. The non-cyber CIP issues include security at Department of Energy facilities, power plants, transportation security, water security and more. Across this diverse set of topics, the issues vary widely and there is less opportunity for experts to aggregate the concerns in a consistent way.

These findings illustrate the influence of a small cadre of hyper-expertise in drawing attention to problems and solutions. Although there is an overall lack of continuity across witnesses among the hearings we study, several hyper-experts emerge from the expert and business and industry witness categories. These individuals and the organizations they represent supply a consistent message to congressional committees about the relevance and importance of cybersecurity concerns.

CONCLUSIONS

We have addressed the extent to which the bureaucracy has a privileged role as an information conduit, how issue differences affect sources of expertise, and how expertise is distributed across different venues. Our data are drawn from congressional hearings for CIP policymaking in the US between 1995 and 2009. The public for this issue area is largely non-existent, and thus the federal government has very few political demands from community and other stakeholders that typically shape public policy. In this vacuum, issue experts who may be drowned out or subsumed by advocacy organizations can be expected to hold sway. The comparison of non-cyber and cyber-related critical infrastructure issues provides a basis for examining differences in the demand for and supply of expertise.

Three findings stand out from our research. The first concerns the presumed privileged role of the bureaucracy as an information conduit for policymaking. With the rise of advocacy organizations, think tanks, professional organizations and other information sources, scholars have questioned the centrality of bureaucratic expertise (Durant, 1991; Rourke, 1991). Our findings show that federal agency personnel are the major contributors to testimony about critical infrastructure issues, with other sources of expertise drawn

from academic settings, industry, professional associations and think tanks. However, much of what federal government personnel testify about when called upon by Congress is informational. In contrast, expertise provided by non-business interests and research experts dominates the substantive contributions to understanding problems and solutions.

This set of findings cuts two ways. It reinforces the role of the bureaucracy as an information conduit. However, it also suggests that the bureaucracy is not necessarily a primary source of issue expertise. Although we find differences among witnesses from different agencies, federal witnesses and members of Congress tend to treat agency testimony as reporting for the purpose of oversight rather than as an opportunity to inform future policy. This is especially the case for testimony by agency ranking officials. This finding challenges the conventional view of the bureaucracy as the primary source of expertise in policymaking. For this case at least, governmental personnel seem to set the broad context while other sources of expertise provide the necessary problem and solution details.

A second set of findings concerns the demand for and supply of issue expertise. Given the greater salience of cyber-related issues and the more direct industry-related impacts of cyber threats, we find, as expected, greater degrees of business and industry involvement as witnesses for cyber-related hearings than for non-cyber-related hearings. In comparison with cyber-related hearings, we note greater involvement for non-cyber-related hearings of non-business and state and local government interests. As might be expected, a larger percentage of research experts provided issue-specific testimony for cyber-related issues. Given the generally emergent and changing nature of the concerns about cyber issues for which grappling with the nature of the problem is foremost, the testimony of these research experts concerned the nature of the problem as opposed to suggesting specific solutions or broader information. This set of findings shows how differences in issue maturity and salience affect the demand for and supply of expertise.

A third set of findings concerns those individuals who testify in multiple hearings across subcommittees, over time with the same committee, or both. We suggest such hyper-expertise is important as a way of providing a consistent message about the problems and potential solutions for complex problems. This phenomenon is relatively rare for the issues we study, with 95 percent of witnesses testifying fewer than three times. Exceptions include some research and industry experts who testified multiple times across different committee venues concerning cyber-related critical infrastructure issues. These witnesses include several academics and individuals who represented well-known technology companies and technology and financial services industry groups. This set of findings illustrates the influence of a small cadre of hyper-expertise in drawing attention to problems and solutions.

An obvious issue is the degree to which these findings can be generalized beyond the case of CIP. We suggest that this issue area is similar to other 'public risks' for which threats are widespread and that have prospective effects that are less apparent, are not easily comprehended and are not readily addressed by individual actions (see Huber, 1986). Such risks do not engender public demands for action, have limited development of advocacy organizations calling attention to problems, and require policymakers to incur up-front costs for delayed and uncertain benefits. There is not much of a constituency pushing for efforts to reduce these risks beyond experts within relevant policy communities (see Birkland, 1997, pp. 36–41). Examples of these include the loss of biological diversity, declining ocean health, threats to cybersecurity and other critical infrastructures

and the potential catastrophic effects of earthquakes, volcanoes, tsunamis and other low probability natural events.

Our research contributes to the understanding of the role of the bureaucracy in policymaking. Additional empirical study of bureaucratic expertise in diverse policy arenas has the potential for further advancing the understanding of this role. Notable examples of this line of inquiry are recent scholarship by Gailmard and Patty (2013) and by Workman (2014). These provide new avenues for empirically examining the role of the bureaucracy as an information conduit in policymaking. Moving beyond a focus on issues of bureaucratic control to a focus on the supply of and demand for bureaucratic expertise reinvigorates thinking about the capacity of government to grapple with diverse problems.

Ultimately, the important considerations are what different types of issue expertise bring to the table and how that influences policymaking. These are central aspects of the political economy of policy expertise for which Kevin Esterling (2004, p. 73) frames the issue as 'whether Congress can learn from public debate among interest groups about the likely effectiveness of policies or whether the interest groups will only exploit their informational advantage to confuse and mislead Congress'. We found no evidence of policy obfuscation, perhaps because of the less value-laden nature of the issues we studied. Yet, our findings suggest that federal agency personnel are limited to a large degree in addressing basic questions about whether a policy should be created or about policy design. Other sources of expertise need to be relied upon for this advice. This may skew information provision in favour of business and industries that stand to gain the most from new policies. What we observe may be as much about the roles different information sources fulfil in the drama of policymaking as it is about the substance of policymaking.

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NOTES

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2. We searched the Roper Center iPoll database for the period January 1995 through December 2009 using the term 'infrastructure'. The only polls referencing this were ones conducted after Hurricane Katrina in 2005 about the advisability of rebuilding damaged infrastructure and those in 2009 concerning support for investing in infrastructure projects as part of an economic stimulus package.
3. The poll results were obtained from a search of the Roper Center iPoll database for the period January 1995 through December 2009 using terms 'information security', 'cybersecurity' and 'computer security'. Each of the polls was based on a national telephone sample of between 800 and 1000 adults.
4. The terms are as follows: critical infrastructure, information assurance, critical systems, infrastructure

protection, infrastructure security, cyber crime, cybersecurity, physical security, facility security, technology security, computer security, internet security, information infrastructure, information security, chemical security, critical facilities, critical information systems, key assets and key resources.

5. For the subset of 100 hearings that were scored by the same two coders, there was 87 percent agreement on whether the hearing should meet the minimum threshold of relevance before any clarifying discussion. After post-coding discussion, there was 98 percent agreement.

6. These were: local government, state government, experts and think tanks, business and industry firms, business and industry associations, governmental and other professional associations, public interest groups, individual testimony, House members or staff, Senate members or staff, special committee members, Congressional Research Service staff, General Accountability Office staff, White House staff, Office of Management and Budget staff, members of Presidential commissions, inter-agency task forces and federal government agencies and independent entities. We calculated intercoder reliability for a subset of 161 witnesses, with 82 percent agreement among two coders for this classification and with 100 percent agreement after discussion of the coding.

7. For a sample of 50 witness testimonies, there was 84 percent agreement between coders for assignment to one of the three categories of testimony. There was 90 percent agreement between coders for designation of issue focus (problem or solution) versus information provision.

8. For large, cabinet-level agencies (e.g. Treasury, Energy, HHS, State, DHS), Secretary, Deputy Secretary, Under Secretaries – or equivalent titles in agencies that use Assistant Secretary rather than Under Secretary (e.g. DoD, Energy) or that use the title Assistant more generally for this function (e.g. Justice). For smaller cabinet-level and independent agencies (e.g. EPA, FEMA before incorporation into DHS, FTC), Administrator or Director, Deputy Administrator or Deputy Director, Commissioners, Chairman.

9. There were 247 witness appearances from federal agencies for cyber-related hearings and 161 witness appearances for non-cyber-related agencies. The χ^2 test of differences in the distributions of witness appearances across agencies when categorized as in Table 17.2 is 49.36, p < 0.00. Non-cyber-related hearings were dominated by representatives from the Department of Homeland Security (40 percent of witness appearances), while witness appearances for federal agencies for cyber-related hearings were distributed more broadly across agencies.

10. Originally standing for computer emergency response team, CERT, a trademark of Carnegie Mellon University, is no longer an acronym (http://www.cert.org/faq/cert_faq.html#A3).

11. Although originally standing for Banking Industry Technology Secretariat, BITS is no longer an acronym (http://www.bits.org/about/index.php).

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18. Expert networks and epistemic communities: articulating knowledge and collective entrepreneurship
Anthony R. Zito

INTRODUCTION

Since the 1970s, modern states have confronted greater and greater challenges to the formulation of public policy (Rhodes, 1996). The rise of neo-liberal ideologies, global forces (for example, global markets) and 'wicked' problems have directly challenged the role of the state and its ability to govern (O'Connor, 1979 [2002]). Wicked problems are both unique and yet linked and symptomatic of other interrelated problems (Rittel & Webber, 1973). Policy-makers face great uncertainty in attempting to resolve them, particularly as such attempts have significant and sometimes enduring, yet often unforeseen, policy consequences. This challenge is multiplied exponentially when actors seek to govern across territorial borders and must coordinate a range of national and other actors as well as global forces (Rosenau, 1992).

This contribution is a theoretical examination of the role that expert groups, particularly 'epistemic communities' and 'advocacy coalitions', play in national and global governance. The chapter conceptualizes the impact that expert networks can have on the formulation of global governance as well as on national and subnational dynamics. Haas (1992, p. 3) defines an epistemic community as 'a network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge'. The concept of advocacy coalitions (also referred to as Advocacy Coalition Frameworks, or ACF) refers to 'actors from various governmental and private organizations who both (a) share a set of normative and causal beliefs and (b) engage in a non-trivial degree of coordinated activity over time' (Sabatier, 1998, p. 103). There are both similarities and important differences between epistemic communities and advocacy coalitions, as will be explored in this chapter.

The promise of epistemic communities is both knowledge-informed policy as well as targeted collective entrepreneurship. In other words, these networks claim expertise that may significantly inform policy responses. At the same time, because the networks often cross national and institutional boundaries as well as policy sectors, they can provide entrepreneurship across multiple veto points that exist in both national and global governance processes (Zito, 2001a). Public policy increasingly crosses multiple levels simultaneously – local, national and transnational – and no single individual or institution can hope to get policy agreement across all levels. However, just as the governance shift (to making other non-state actors responsible for policy and services) raises the question of who can be held accountable by the public, the existence and influence of such groups forces us to examine the relative role of elites versus the public in contributing to policy formulation and global governance (Zito, 2001b). If states have to increasingly

share policy formulation with expert networks, how are patterns of accountability to the electorate maintained? This is a wider question facing all national and global governance mechanisms.

Although global governance is required to confront global problems such as the international financial crisis and climate change, the complexity of global governance systems poses various governance challenges. In addition to bilateral relations, transnational governance processes are increasingly important. In 2015, global institutions such as the United Nations sought to create a definitive member agreement to prevent global warming from exceeding certain limits. Regional bodies such as the European Union (EU) and North American Free Trade Area (NAFTA) are increasingly engaged in the technical regulation of complex issue areas and policy problems where knowledge and technology evolve constantly as well.

Lastly, we see the rise of transnational institutions and processes that do not involve treaties. These more non-governmental processes include the International Standards Organisation (ISO), an organization of national standards bodies seeking to create a global standard for various economic and management activities (Kollman & Prakash, 2002). There has been an increase in self-regulation in areas such as certification systems for building, fisheries, food, forestry, mining, tourism, clothing and so on (Cashore et al., 2004). In these latter cases, a range of stakeholders, including producers and consumers, are involved in the governing process.

All of these organizations and processes confront the same challenges. They must engage with an increasingly diverse and complex global and national environment. Technology and communications are becoming more critical while at the same time national societies are dealing with an increasing range of perspectives informed and shaped by global dynamics (Castells, 1997). Given these hurdles, the knowledge of policy solutions and technical know-how will be diffused more widely across various networks of public and private actors in both the national and transnational political systems (Kohler-Koch, 1999).

These are conditions in which epistemic communities, advocacy coalitions and other networks with technical expertise may play a significant role within larger actor networks. Given the rise of highly differentiated societies containing complex functional interdependencies and causal networks, some scholars argue that public policy is moving towards a more network governance approach. The consequence of these interactions is a considerable range of exchanges and relationships between an increasing array of actors, with often unpredictable direct and indirect effects (Mayntz, 1993, p. 16). Confronted with this uncertain situation, in which actors are no longer able to steer governance on their own, the assorted actors (social actors, groups, forces, public or semi-public organizations and so forth) recognize their interdependence and negotiate amongst themselves to shape situations. Mayntz (1993, p. 20) suggests that policy actors need to recognize their mutual dependency and the need to develop greater expertise concerning modern complex problems and causal linkages that shape them; expert networks such as epistemic communities can provide these insights.

Nevertheless, the sheer complexity of these interactions and the attempts to govern create a policy process that is difficult for both political elites and the general public to track. More fundamentally, there may be a transformation of governance structures and traditional roles, and the trust of the populace that was assigned to traditional institutions

cannot be assumed as a given in these new arrangements (Hajer & Wagenaar, 2003, pp. 8–12).

   This chapter reviews the concept of epistemic communities and assesses its weaknesses. It explores the insights that other network perspectives and approaches can bring to an understanding of expert networks in the process of policy formulation. The chapter then examines the role that such expert networks can play in different aspects of policy formulation.

EXPERT COMMUNITY CONCEPTS

Epistemic Communities

The epistemic community is a network of actors that possesses not only a shared expertise and a common world view but also a shared authoritative claim to knowledge (Haas, 1992, p. 3). In contrast to the advocacy coalition perspective, Haas's level of analysis is transnational, but there is a similar focus on knowledge and causal beliefs shaping learning and altering decision-making choices. Haas's initial cases focus on epistemic communities of natural scientists, but the concept goes well beyond this. What defines the community is the nature of belief: 'what bonds members of an epistemic community is their shared belief or faith in the verity and the applicability of particular forms of knowledge or specific truths' (Haas, 1992, fn. 4). The community must have a shared set of normative and principled beliefs that provides the rationale for policy formulation and policy action more generally; shared causal beliefs which arise out of the analysis of the policy problems and the drawing of linkages; intersubjectively derived criteria for weighing and evaluating new knowledge (that is, the validity of the criteria is created by having independent experts identify and negotiate the criteria together); and, finally, a common policy objective (Haas, 1992, p. 3, 2001, pp. 11579–80). The epistemic community approach expects the community membership to be differentiated, made up of different characteristics, outlooks, roles, strengths and means of influence within the community (Drake & Nicolaïdis, 1992, pp. 39–40).

   Epistemic communities are only one part of the story of networks. Other groups of experts exist that do not constitute expert groups but may have a significant role in the policy process; equally, epistemic communities may influence the political process when the community is in a nascent or temporary state (Haas, 1992, pp. 31–2; Ikenberry, 1992; Kapstein, 1992). Epistemic communities can be national or transnational in scope (Adler, 1992, p. 106). Transnational communities are postulated to have a more sustained and intense impact than national ones; nevertheless, international learning can happen even in national communities (Haas, 1992, pp. 17–18). The access of influence held by these communities is defined by their expert training and reputation, as well as the persuasiveness of the claims they make about knowledge, backed by authoritative works in the field. These communities are united by a shared set of causal and normative beliefs, a consensual knowledge base and a shared set of interests or purpose. Thus, epistemic communities are similar to advocacy coalitions in having shared core ideas, but advocacy coalitions focus less on the technical/scientific method and more on common political objectives (Peterson & Bomberg, 1999; Sabatier, 1998).

The actual activity of the community can be far-ranging and go well beyond defining a policy analysis, offering policy solutions and influencing key decision-makers. It can include the building of a favourable intellectual climate to receive the epistemic ideas, the development of the key causal analysis, the development of essential technical knowledge for the analysis, the diffusion of arguments, the development of certain vested interests and institutions in favour of the political beliefs, the coordination of technical details for policy planning, raising consciousness and public awareness with respect to the media and the public, lobbying key decision-making organizations, and developing aspects of the policy agenda (Adler, 1992, pp. 141–2; Adler & Haas, 1992). Brine (2000, p. 268) has also postulated that epistemic communities provide political cover by sharing the blame for wrong or problematic policy decisions. The communities can also contribute symbolic value, as institutions and political actors who use their advice can claim a basis in independent and neutral expertise.

Turning more directly to the conditions in which an epistemic community is likely to shape policy formulation, conditions of uncertainty are key triggers for the deployment of knowledge and learning (Haas, 1992, pp. 4–12). Uncertainty involves two interacting elements: technical uncertainty and political complexity. The first category involves decision-makers lacking adequate information about the situation they face, as well as how these complex issues interact with (or are 'nested in') other complex issues. Thus, decision-makers may lack adequate knowledge of key problems, particularly about how choices governing such problems might affect the issue at hand in the future as well as other issues over time (Haas, 1992, pp. 13–14). As with the ACF, the epistemic community approach expects that decision-makers will not always realize the limitations of their knowledge. It will often require crises or some policy shock to make decision-makers confront their need for information and the epistemic community. Epistemic influence may be stronger when the members of the community have confidence in their abilities and are able or predisposed to use their ample prestige (Adler, 1992, p. 112). Greater learning is likely to occur when a substantial body of knowledge emerges and forms the basis of policy prescriptions (Kapstein, 1992).

There is a second core element to this dynamic of uncertainty, which is that political behaviour complicates such interactions. The type of uncertainty that generates favourable conditions for international cooperation is the recognition of the complexity of the interaction of a wide range of actors at the international level. For example, the policy choices of each state will help define the success of other states, leading to multiple consequences that are difficult to calculate completely (Haas, 1992, pp. 3–4). Policy-makers in conditions of uncertainty will find it harder to identify potential support actors and to develop appropriate strategies.

It is in this context that epistemic communities not only provide information but also interpret human behaviour (Haas, 1992, p. 4). This emphasis on interpretation of social phenomena shows the greater instincts of the epistemic community approach towards constructivism and interpretation, compared to the orientation of ACF towards quantifiable data gathering. Epistemic communities influence decision-makers by directly assisting them in identifying the core issues at stake as well as the policy implications. The epistemic community's influence can be extended indirectly when decision-makers use the epistemic community arguments to persuade other governments and create social institutions. In this process the epistemic communities illuminate a number of policy

aspects: the cause-and-effect relationships and the consequences of actions, the interlinkages between issues and the implications of specific policy choices, the assessment of the interests at stake, and the design of policies as well as their legitimation through evidence (Haas, 1992, pp. 15–16).

Epistemic community scholars note that beyond the question of uncertainty, context also matters. Technology, the distribution of power in the international system, domestic political and administrative structures, and political, economic and military events can all alter the conditions in which the epistemic community wields influence and promotes learning (Adler, 1992). Adler and Haas (1992; see also Haas, 1992) have emphasized that institutions and organizations constrain, give authority to actors, and make them slow to change. Much of the core epistemic literature suggests that crises prompt decision-makers to act and present the most favourable opportunities for expert group influence. However, Kapstein (1992, p. 268) has suggested that a reflective period after a crisis is more likely to see the exploration of ideas and the heightened influence of an epistemic community. Adler and Haas (1992, p. 383) postulate that epistemic communities may push their knowledge and prescriptions better when they are seeking compromise than when they are trying to convert other groups to their perspective. At the same time, they may do better when ideas are more inchoate and thus do not so clearly map onto interest considerations on the part of decision-makers and their constituencies.

When the costs of securing the relevant information to formulate policy are low, or where there is lack of intensity concerning the policy issue, epistemic communities are less likely to be prominent in formulating policy (Radaelli, 1999a, 1999b). Political discussions are likely to control the discussions of policy responses in difficult political areas where information can be secured internally or from a wide range of interest groups. In less politically divisive issue areas, bureaucratic policy-makers are also likely to rely on status quo solutions and operational goals contained within their own organizations. These may have been originally installed by an epistemic community, but played a role in framing the current policy formulation rather than directly shaping it.

In terms of the receptivity of decision-makers, although uncertainty may be critical the literature suggests that, in circumstances where policy-makers are more familiar with an issue, they are more likely to listen to an epistemic community that fits with their own previously held agenda (Adler & Haas, 1992, p. 381). The influence of epistemic knowledge is more likely to be greater when the ideas promulgated by the epistemic community are closer to the mainstream. Kapstein (1992) suggested that the impact of the epistemic community will be greater in an arena separated from domestic political pressures. At the same time, the perception of vulnerability with respect to an issue and the perception that vulnerability directly affects core interests may also predispose decision-makers to take on new knowledge.

Access to the decision-making process is not sufficient for sustained influence. The community needs to insert members (or convert members of the extant policy process) into positions of influence within national and/or transnational governments and organizations (Drake & Nicolaïdis, 1992, pp. 40–1). Haas (1992, pp. 190–1) viewed advisory and regulatory bodies as likely arenas for spreading influence given their focus on technical knowledge and expertise. Thus, knowledge is not enough: members of the epistemic community must wield policy-making power or persuade those who have power to accept the community's recommendation (Haas, 1992). However, institutions can be expected to

follow a path-dependent course shaped by institutional norms and approaches. Another important way to obtain influence, given the political requirements, is for the epistemic community to form alliances with other expert groups, interest groups, bureaucracies and so forth. The ideas of the epistemic community are more likely to succeed if they fit with the prevailing policy ideology and regulatory approach of the targeted government or organization, and if the state is able to resist the pressure of contrary domestic interests (King, 2005, pp. 98, 118; Raustiala, 1997; Rucki, 1994).

Another core variation in the conditions of influence concerns the specific role of the community in the policy process. The nature of the influence may vary (for example, the community may play a greater role in framing issues than in legitimizing decisions, or vice versa). The political context and the stage in the policy process will shape such influence patterns: for example, epistemic communities have particularly strong roles in the EU context with respect to agenda setting, policy formulation and policy implementation, by providing expertise and advice (Zito, 2001a). The communities are less prominent in the decision-making and political bargaining stages. During the negotiation phase, epistemic communities may become relegated to a secondary, supporting position or a legitimizing role (Drake & Nicolaïdis, 1992, p. 41).

Before addressing criticisms of the epistemic community approach, it is worth underscoring some of the potentially problematic implications of such a political body for governance and policy-making. Haas's conceptualization focuses on a very limited group of actors with a shared set of causal beliefs and normative principles. The approach has a basic expectation that other policy actors – and, implicitly, the general public – will defer to the expert epistemic knowledge when the conditions mentioned above are met. For example, Haas's own (1990) research argued that non-environmental actors, both private interests and ministries, did not challenge substantially the epistemic perspective of the environmental policy-makers; here issue uncertainty induced the other actors to defer to the environmental agencies.

Critiques of the Epistemic Community Framework

In examining the criticisms of the epistemic community approach, it is both interesting and informative that the epistemic community approach has never generated a range of scholars seeking to test specific sets of hypotheses, especially when compared to the ACF literature. One of the main distinctions between the ACF and epistemic community concepts is this absence of a systematic research agenda and empirical testing of the various epistemic community propositions (Dunlop, 2009, p. 289). This reflects the epistemological and methodological differences between the two approaches and their proponents. The lack of a sustained and systematic testing of the epistemic community theory can be viewed as a criticism if we embrace a more empiricist perspective.

Moving to the concept itself, various scholars have argued that core elements of politics are missing from the framework. Some have raised concerns regarding the difficulty of isolating the influence of the causal beliefs from the influence of the organizations and institutions in and/or linked to the communities (Dunlop, 2000, pp. 141–3). A separate but related scenario is the argument that prior political ideologies can constrain the values and policy preferences of scientific communities (Mitchell et al., 2007). Such ideological influence can occur even when the communities are developing knowledge, which should

(according to the assumptions of the epistemic community approach) be able to displace ideology and national identification. Raustiala (1997) argues that the epistemic approach pays insufficient attention to the domestic politics shaping opportunities for communities in the national context, and that it needs a stronger conceptualization of the state. Another issue is that the perspective tends to be blind to the reality that some ideas are more likely to prove attractive than others to decision-makers as they confront uncertainty – this requires a further refinement of both the ideas and the understanding of the context in which decision-makers operate. More broadly, some policy structures and some countries' policy contexts are more likely than others to be receptive to the beliefs and ideas of epistemic communities and expert groups (Jordan & Greenaway, 1998; Sabatier, 1998).

Although epistemic communities can persuade decision-makers to alter their assessment of interest in light of the epistemic arguments, the receptivity of the policy-makers to such information will still be derived substantially from their perception of their perceived interests (Litfin, 1994). Litfin (1994, p. 47) argues that the epistemic community approach lacks a fundamental understanding of how political power works in relation to knowledge; the concept does not sufficiently explain the source of the epistemic community's power and does not contain a coherent conception of knowledge. Litfin finds a contradiction in Haas's assertion that community members must both convince policy-makers of the value of their contributing consensual knowledge while also gaining political influence and making use of other political values and considerations – this latter reality does not differentiate an epistemic community from most political groups. The epistemic community approach keeps separate the role of interest and power from the role that knowledge has in shaping and constituting that power. As a result, the approach overemphasizes the ability of consensual knowledge to militate against political conflict (Litfin, 1994, pp. 49–50).

Dunlop (2009, p. 293) finds the epistemic community approach does not adequately differentiate the separate ways learning can occur, and therefore the possible conditions for interaction between epistemic communities and decision-makers. Verdun (1999, p. 316) makes a separate point about the lack of detail in the interactions within the epistemic community, particularly the absence of a discussion of how leadership works within the community. Of course, some scholars have attempted to deal with some of these issues, but the tradition as a whole tends towards ambiguity on these issues (e.g. Gough & Shackley, 2001). The policy uncertainty that exists in the general issue area may also lead to a wide range of interpretations of the epistemic knowledge in that particular context. This may lead to differences of opinion within the overall epistemic community. It is difficult to differentiate cleanly between knowledge and interests in any political analysis (Dudley & Richardson, 1999). This leads to the possibility that expert groups themselves may have interests driving their ideas, in order to secure funding, public recognition and so forth.

A third set of criticisms focuses on the political implications of the concept for public involvement and representation. For example, Susskind (1994) critiques the framework as an elitist vision of global problem-solving. Agreeing with Raustiala, Susskind maintains that national governments are unlikely to allow an expert community to diverge strongly from domestic political considerations about the interests of a country when formulating national or, for that matter, global policy responses. This does not make it inevitable that the policy formulation process involving epistemic knowledge is undemocratic. According to Weale's (1999) definition of democracy, public opinion has a role in policy choices,

either directly or indirectly, by means of elections or some other equivalent mechanism. Nonetheless, epistemic community input in the policy formulation process suggests a political exchange where scientific dialogue and knowledge exchange dominate the key argumentation. It is not clear how other kinds of actors, particularly without this expertise (or access to such expertise), can contribute to this process (Dunlop, 2000; Toke, 1999). It is unfair to expect the approach to offer an approach to democratic legitimacy in policy-making, but the implicit suggestion is that influence comes from linking to and building alliances with the expert groups. The approach does not address how other elements of civil society, including both non-governmental organizations (NGOs) and economic actors, as well as more politically oriented and less knowledge-driven coalitions, are involved in influencing the policy process and engaging with the epistemic community but the presumption is that the epistemic community will persuade and co-opt them. How the general public is involved in policy formulation in a substantial manner remains unclear, except implicitly as competing (or complementary) concerns for policy-makers.

TOWARDS AN EXPERT COMMUNITY SYNTHESIS?

In this section we consider the possibilities of addressing some of the critiques of the epistemic community approach by integrating ACF concepts. At the very least ACF provides a more detailed description of the external domestic variables and the relation of core beliefs to policy-makers.

On the issue of external domestic variables, the ACF's intensive focus on the policy sector gives us a more in-depth sense of both the other actors operating around the expert community and the process in the policy sector. ACF takes as its unit of analysis 'those actors from a variety of public and private organizations who are actively concerned with a policy problem' – what Sabatier described as a 'policy subsystem' (Sabatier, 1993, pp. 16–17). Sabatier's original conceptualization of the policy subsystem is as a network concept, not a specific institution or organization. ACF conceives policy subsystems to potentially involve all levels of government, from the local to the national, and is thus more limited than the epistemic community approach which has a strong focus on international problem-solving as well. In later works, Sabatier extends the analysis to transnational dynamics (particularly Sabatier, 1998) but does not fully conceptualize the interactions across national boundaries and differences in institutions.

Sabatier (1988) deliberately embraces a broader sense of actors than a network because he wished to incorporate 'latent' actors who might become active if they receive the right stimulus, such as information – not just the already active network actors. As such, the cast of potential actors who are concerned with a policy problem can include journalists and researchers as well as government officials and experts. In any given policy subsystem, there are likely to be two to four policy coalitions competing to achieve their policy goals and following separate belief systems. The possibility of a number of competing coalitions surrounding a policy problem is not explicitly examined in the epistemic community approach. However, not everyone in the policy subsystem must adhere to a particular belief system or coalition. Indeed, ACF gives particular scope to one category of such non-aligned actors or 'policy brokers' whose 'dominant concerns are with keeping the level of political conflict within acceptable limits and reaching some "reasonable" solution

to the problem' (Sabatier, 1993, p. 27). Another elaboration of the role of expert communities comes with Sabatier and Weible (2007), who argue that for expert groups to affect policy change, the political system must have an adequate degree of political openness as well as some form of consensus on embracing change.

Moving to the concept itself, advocacy coalitions can involve actors from all government levels, civil society organizations and media (Sabatier, 1988). A common theory about the means to achieve policy goals unites the members; it articulates their value priorities, their perceptions of causal relationships and the potential common political strategies. In comparison to epistemic communities, advocacy coalitions normally have a strong participation by politicians, interest group lobbyists and other actors who have 'political objectives' (Radaelli, 1997). Factors outside the expert group, such as changes in government positions and in socio-economic performance, as well as internal learning, may induce modification of secondary aspects of the coalition's belief system, but the core aspects of that belief are more resistant to change (Sabatier, 1998). Despite much of the empirical testing of ACF, which finds that learning is more likely to happen in terms of the secondary beliefs of a coalition, Sabatier and his colleagues acknowledge that a number of questions about the conditions that facilitate learning and that transform policy learning into policy change are still unanswered by the ACF approach (Weible et al., 2009, pp. 130–1). The success of the expert community depends on the range of resources available to it (Sabatier, 1988, pp. 142–7). This effort will be shaped by belief systems, but the degree to which coalitions can do so depends on a broad array of resources, from political (access and control of the key relevant political organizations and decision-making roles within the policy subsystem) to legal, knowledge-based (level of expertise) and material (for example, time, number of supporters, money).

Given the ACF's more elaborate conceptualization of the policy subsystem, analysts can identify more explicit links between advocacy coalitions and the public. These links include both interest groups and the media, which both shape and reflect public opinion. Advocacy coalitions will have a strong portion of interest group representatives and agency officials. In contrast, professionals, informed to a greater degree by technocratic thinking, will tend to dominate epistemic communities (Peterson, 1995; Peterson & Bomberg, 1999). Haas's criteria for the epistemic threshold have a narrower knowledge focus: epistemic communities are centred on the knowledge that they promulgate. This knowledge contains often very micro, technical foundations (Zito, 2001b). Raustiala (1997) contends that members of the epistemic community place more weight on the fact that solutions are based on authoritative scientific content than on the specifics of that content.

There are two wider implications of bringing the two perspectives together. The first is that we need to understand expert groups as both a national and transnational concept. The ACF approach, and the original case studies conducted by Sabatier and his colleagues, focus on the policy subsystem within national boundaries. It may often be the case that epistemic communities are developed within national confines as well. A particular idea or episteme may be generated in professional or academic conferences and networks within a national or even subnational context; alternatively, an idea with international parameters may take hold of a specific community within a country. King (2005) suggests that an epistemic community focused on the merits of making the Bank of England independent and was able to promulgate these ideas to both of the key parties in

government and opposition. At the same time, however, the epistemic community orientation alerts us to the fact that the framing of the problem and the knowledge of the policy problem may have an international audience and generate international diffusion. The idea of separating central banks from the national government is an idea that has spread across the globe and did not originate in the UK.

Second, a more comprehensive analysis of the role of experts necessarily involves expanding the concept of epistemic communities to include other missing or under-specified dimensions. The argument above focuses on informing the epistemic community concept with ACF elements. However, there are other ways of modifying the epistemic community approach. Haas's definition of an epistemic community is particularly strict. It is no coincidence that so many of the detailed applications of the epistemic community perspective are found in policy areas such as environmental policy where there are under-stood conventionally to be high levels of scientific and policy uncertainty. This means that examples of true epistemic communities tend to be rare. This reality suggests two alternatives for best exploiting the epistemic communities concept. The first involves using looser criteria for analysing expert communities. Kapstein (1992) takes this approach when he examines a community of central bankers, indicating that there are a greater number of general technically orientated communities that play significant roles. 'Esoteric' knowledge suggests the role of ideas and scientific expertise. Even without Haas's emphasis on consensual knowledge of cause-and-effect relationships, a community may wield scientific and technical knowledge in a way that establishes distinct expert communities that influence policy formulation.

A second alternative approach is to retain Haas's definition of epistemic communities but place it in a larger network toolbox. Radaelli (1999b, pp. 47–9) takes this approach when he distinguishes between epistemic communities and other network activity. He maps the nature of the policy process in terms of the salience of the issue and the uncertainty of the issue. Radaelli gives the epistemic community approach a slightly different emphasis than in the traditional literature, arguing that this network type is more likely to make a difference when there are conditions of strong uncertainty but also high conflict among actors that need to ascertain their interest on any given issue. Advocacy coalitions can also exist and make a strong difference in such circumstances, but a wide-ranging advocacy coalition (with its more diverse set of actors in the bureaucracy and political process) has a greater likelihood of being important in the decision-making apparatus under conditions of both low and high issue salience, as well as varying degrees of uncertainty. The epistemic community is likely to feature less prominently than the advocacy coalition in issues with lower salience and lower degrees of uncertainty.

Accordingly, placing the ACF and the epistemic community concepts in a wider frame – that of an expert knowledge – may allow us to combine both the nuance of scientific expertise and the wider sense of how politics interacts with knowledge, both within national policy processes as well as transnational ones. This framework presents a picture of multiple communities, including ones with a strong scientific outlook and methodology, to focus on formulating governance responses to all types of policy problems. In this way we can acknowledge the potential influence of scientific experts operating outside particular policy coalitions such as the international climate change negotiations, but still involved in an advisory and/or consultative capacity. Global governance as well as national governance will include many layers of institutions and working groups,

operating in a wide network of interconnected activities. Such a complex network of advice and knowledge may contain two (or even more) distinct communities, perhaps including one epistemic and a broader advocacy coalition, and form around a given issue area. These communities may compete or cooperate with each other, and against other groups and networks of interests.

THE ROLE OF EXPERT COMMUNITIES IN POLICY FORMULATION

Having articulated the concept, it is now time to outline explicitly how expert communities can manifest themselves in the policy formulation process. This section articulates two dimensions of policy formulation where expert communities may have differentiated roles: the venue of policy formulation and the process of policy formulation.

Venue and Expert Communities

Turnpenny et al. (2015, pp. 11–12) describe venues in which policies are formulated as 'institutional locations, both within and outside government, in which certain policy formulation tasks are performed, with the aim of informing the design, content and effects of policymaking activities'. To pinpoint the location of the venues within the policy-making process, Turnpenny et al. (2015, p. 11) ask two questions; the answers to these questions are not binary and instead are best understood as operating along a scale. First, does the executive (where the decisions are taken) undertake the tasks internally, or are the policy formulation choices worked out external to the executive? Second, are the sources of knowledge that inform policy formulation produced and/or sanctioned by the executive, or do they come from unofficial sources?

Epistemic communities can thus generate knowledge and ideas operating *across* four possible scenarios. When knowledge is official and the venue is internal, it may be the case that a government or transnational executive has taken the main role in generating the knowledge that informs policy formulation. In this scenario, we would have to ascertain if the expert community has managed to embed itself into the executive and if its community members are active in producing elements of the core knowledge. Both ACF and epistemic community perspectives allow for this possibility, although the orientation of research on the epistemic community has tended to focus on networks grappling with problems and knowledge that challenges the status quo.

Apart from this official, internal scenario, however, both the epistemic community and the ACF approach recognize that the network dynamic allows elements of the expert community to be both inside and outside the executive, and to simultaneously produce unofficial and official knowledge of importance to policy formulation. Haas's original 1990 monograph centres on this interactive dynamic. Elements of the community might serve in think tanks that are outside the executive but have been delegated or employed (perhaps as consultants) to generate the necessary knowledge, thus creating an external venue producing official knowledge. Parts of the epistemic community might generate more academic and theoretical works, but the practical implications of this research may be fed into the halls of power (unofficial knowledge, external to the executive). Thus, for

example, the United States Environmental Protection Agency, to justify its policy proposals, has to be able to cite academic studies of public health that justify the agency's policy approach and support it on both scientific and cost benefit grounds. Verdun (1999) notes how an epistemic community of monetary experts both informed a critical external body to the EU process (the Delors Committee) but were also authoritative actors in the member state context. The executive process can take place at a subnational, national or transnational level, and the expert community that generates the knowledge may operate at all these levels as well.

Process and Expert Communities

If we turn to the core elements that inform policy formulation, a number of scholars have illuminated core elements. Some scholars (notably Wolman, 1981 but also Turnpenny et al., 2015) have focused on various essential steps that are required for formulation: the actors conceptualize and characterize the nature of the policy problem; the actors evaluate the causal dynamics inherent in the policy problem to formulate potential policy responses; the actors determine the policy objectives and the time frame by which the policy should be achieved; the actors assess the policy objectives; and finally the actors design the policy, giving consideration to a range of issues. Yet this heuristic presentation often does not capture reality: the policy formulation process can be non-linear (Kingdon, 1984; Linder & Peters, 1990) and it might be non-sequential (Schneider & Ingram, 1997). This means that actors may have a range of instrument designs ready before the problem has been identified, but also that the processes of developing the solution and the definition of the problem may be interrelated and iterative (feeding on each other) rather than separate (Sidney, 2007).

Keeping in mind these realities, we are now going to chart examples from the literature on epistemic communities across these essential (often iterative but not necessarily sequential) elements in the process: problem framing and definition; setting problem definition on the agenda; designing of the solutions; setting the range of alternative solutions on the agenda; evaluating solutions; and, finally, selecting and designing the eventual policy solution. The epistemic community that helped create the Mediterranean Plan in Haas's original (1990) study is an instrument both in framing the Mediterranean environmental challenge in terms of a wider set of pollutants, and in framing and defining the specific problems to be resolved within this larger view of the world. The epistemic community not only identifies the wider set of pollutants but also builds a case for why a multilateral solution is required to deal with all of the pollutants. The community pressed for these multilateral solutions on the agenda of the United Nations Environment Programme (UNEP) and the UN Food and Agriculture Organization; the community then influenced ratification by the member states by negotiating within UNEP, as its membership and allies worked to convince the national governments of the need for national responses and for the importance of the Mediterranean Plan (Haas, 1990). Adler's 1992 analysis of the nuclear arms control community finds evidence that an epistemic community existed and that it had a comprehensive role in formulating arms control, including in inducing a favourable intellectual climate, clarifying the incentives for the super powers, producing technical knowledge to inform a treaty, galvanizing public opinion, and transmitting the ideas to the US Congress and the Soviet Union.

Other examples show that the influence of the epistemic community is not equally strong across every facet of the process of policy formulation. The epistemic community's support of a critical loads approach to understanding how atmospheric pollution can create thresholds of environmental damage was influential in the problem definition and framing, and the critical loads thinking did inform EU regulatory design (Zito, 2001a). However, it is hard to argue that the epistemic community played anything more than a reinforcing role in setting the policy problem of acid rain, given the rise of popular concern about acid rain and fears about forest death and other environmental damage. Equally, EU environmental policy in the 1980s and 1990s was predisposed towards a regulatory approach because that was the standard EU policy option at the time and the preferred policy solution of the main member state champions (notably Germany). Drake and Nicolaïdis (1992) contend that an epistemic community, involved in the development of the General Agreement on Trade in Services, had a substantial role in framing the understanding of the state representatives of the policy question and crucial considerations in the design of the negotiation. The community also had a role in steering the international venue in which the global policy was negotiated. Nevertheless, the bargain and its agreed details remained in the hands of the state negotiators. This brief overview suggests that although expert communities can have influence across all aspects of policy formulation, context often limits the degree of impact that any given community can have.

CONCLUSIONS

The nature of policy problems the world faces across all political arenas as well as the reality of multi-level governance creates the conditions under which expert groups have a significant role. The epistemic community concept and ACF provide important insights into how such networks can influence the policy process and policy formulation in particular. It is not simply a question of the difficulty of the policy problem. Experts are essential in helping policy-makers to assess how policy challenges interact with human behaviour and what potential there is for problem-solving.

This chapter has detailed the circumstances in which technical experts create the epistemic knowledge and group coherence central to the Haas hypothesis on epistemic communities. Nevertheless, to gain a more nuanced understanding of the behaviour of expert actors in modern national and transnational governance, we need a wider and more flexible conceptual framework that can isolate and assess more diverse coalitions and individual expert actors. This chapter offered several strategies for broadening the framework. Analysts also must gauge how this knowledge community interacts with other actors in the policy formulation sphere. Epistemic and other technical knowledge can be a decisive element in the policy formulation process of both national and transnational bodies, and its role in policy and solution framing will often be hard to isolate and reverse at later policy stages. As modern governance gives significant weight to actors and arenas outside the normal state process, and as hard-pressed states and international institutions require external and unofficial expertise to meet their responsibilities to national and global publics, such expert groups are likely to only gain in prominence.

Even before we address the likely importance of expert actors to national and global governance, the reality is that there is a democratic question of how the influence of

non-elected transnational and national actors is weighted versus that of elected representatives on the backbenches (that is, legislators without executive roles). Can such expert communities provide significant knowledge to problem definition and policy design without pushing out or excluding wider societal preferences? Not all scholars see the role of such expertise as potentially detrimental to democratic legitimacy: for example, Majone (1999) and others argue epistemic communities and other such expert networks can provide knowledge that rises above the narrower self-interests operating with and beyond individual states. Of course, critics of the epistemic community, as we have seen, doubt whether such interests are truly absent from the expert networks. A significant premise in this argument about privileging expertise and the actors who wield it is that the general public is willing to trust executives and experts when they seem to wield authoritative knowledge and do so in technical areas (Scharpf, 2001). The growing lack of trust in political elites as well as elites more generally raises the question of how sustainable this governance approach is. Nevertheless, attempts to remedy the democratic deficit must acknowledge the fact that policy actors and societal representatives may defer to scientific knowledge, especially when the technical questions create such uncertainty that it is difficult to assess the specific interests of each group. Lack of resources and technical knowledge may limit the involvement of political representatives and the oversight of parliamentary figures.

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19. Framing the target in policy formulation: the importance of social constructions
Anne Schneider and Helen Ingram

Beginning in the late 1980s, we put forth a theory of the policy process that placed social constructions of target populations in its center and that linked policy explicitly to democracy (Ingram & Schneider, 1993; Schneider & Ingram, 1993, 1997, 2007; Ingram et al., 2016). The theory posits that the social construction of a social group interacts with the political power of the group to produce distinctive patterns of policy design that impact the lives, identity and perceptions of the group. These distinctive patterns tend to oversubscribe benefits and positive policy for powerful well-liked groups and oversubscribe punishment for weak, marginalized groups. And, there is a 'feed-forward' effect such that groups that are not treated well by policy tend to be alienated from the political process; instead of reacting with renewed political vigor, they withdraw. In contrast, those who are treated the best are emboldened and work even harder to maintain what they are gaining from government.

This framework was developed to help address several questions that current theories seemed unable to answer. For example, why is it that, even in a democracy, some people are almost always favored in public policy and others almost always lose? Why is it that some policies are continued for decades in spite of their apparent (and sometimes obvious) failures to serve policy ends? Why do those who have the most to gain from public policy by increasing their political activity remain among those least likely to vote and least likely to engage in any political action?

To put a much more specific meaning to this in the US context: Why is it that income inequality has exploded to a level not seen since the 'gilded age' of industrial and corporate corruption more than a century ago? Why is it that the United States locks up more of its citizens than any other country in the world, even China, whose population is much greater and its politics much more repressive? Why, in spite of massive gains in racial equality, are young black males far more likely to be shot and killed by police than any other group, and more likely to be imprisoned than to graduate from college? Social constructions are a central part of the answer to questions such as these.

Our theory helps address some more positive questions as well. For example, how do some marginalized groups make their way into the mainstream and overcome much if not all of the previous discrimination? Veterans were not always an advantaged population, nor were the elderly (Jensen, 1996, 2003, 2005; Campbell, 2007). Gay, lesbian, bisexual, transgender and queer people have made dramatic changes in their social constructions and political power over the past several decades. How have forms of institutionalized discrimination been overcome?

Our theory is intended to help and encourage researchers to address these seeming contradictions of democracy and build a theory of the policy process that is empirical, testable and useful in understanding how to create and sustain a socially just, democratic society.

The theory of social constructions of target populations is embedded in a larger theory of policy design, policy process and politics. It brought social constructions – of people, ideas, events, places, groups – into the discussion of how the policy process actually works. Social constructions are the emotional, value-based images and stereotypes associated with people, objects, events or ideas. The theory of social constructions of target groups also brought to the forefront the idea that social constructions are as important as political power resources in understanding policy. Public officials spend a great deal of time attempting to manipulate and control social constructions of their political base just as they do raising money or attempting to craft policies that will solve public problems.

We assume that political leaders are motivated to be re-elected, to maintain a positive image among their constituents, and to be faithful to their political party, but they are also motivated to solve public problems through policy making. A common strategy to reconcile these sometimes incompatible objectives is to manipulate social constructions so that political capital can be gained by 'doing good things for good people' and 'punishing bad people,' and to select other policy tools showing that the design works to solve problems. To make this narrative seem persuasive to the general public, the target populations have to be socially constructed so that there is a putative logic to their selection for benefits or burdens. The policy tools, rules, implementation plan and rationales all need to line up in a way that 'makes sense' at least to enough of the populace to ensure re-election of the political leader. Policy makers create a narrative – a story – complete with heroes, villains, a plot, goals, actions and the like that weaves the various aspects of the policy initiative into a relatively coherent narrative linking the policy to a purported problem with a laudable goal in sight (Stone, 1997; Lejano et al., 2013). What happens, then, is that this story, along with its social constructions and the other elements of policy, become embedded not only in political rhetoric but also in the actual policy itself, reinforcing the underlying assumptions about the target groups. The result is that public policy sends powerful messages to the target groups and the larger public about the positive and negative characteristics of various groups that legitimize the way they are treated by government.

When people actually experience or encounter the policy itself or realize how it is impacting their lives, the messages become part of their orientation toward government and part of their political identity. If people are treated by policy as being a 'problem,' or as 'not deserving' of benefits from their society, while others seem more worthy of public attention and benefits, then participation appears not to be energized (as pluralist theory expects), but in fact is depressed (as people take on the notion that they do not deserve much if anything from government and that they are helpless to change the situation). Their lack of involvement makes them easy targets for still more manipulation by political leaders to gain political capital at their expense.

In contrast, those treated the best by public policy receive messages that they are highly valued, that their interests coincide with the public interest, and they are emboldened to protect their advantages through political action.

These dynamics create a form of 'degenerative democracy' in which some gain far more than is warranted from society (as in the explosion of income inequality) and others far less. Too many are punished too harshly, as the punishment provides lucrative political capital, even though it eventually will become economically difficult to sustain. And, since policy at one point in time has significant 'feed-forward' effects on the next round of policy design, self-correcting mechanisms are weak and short-lived.

Not all policy-making situations follow this kind of degenerative dynamic, however, as 'profiles in courage' occasionally emerge. Scientific and professional knowledge is used to counteract some of the excesses. Evaluation research and ethnographic, qualitative work may expose the mean-spirited values underlying some policy positions and put a human face on the way that policy actually impacts the quality of life of real people. Research has shown that cooperation, empathy and altruism are as much a part of the human story of evolution as competition, greed and self-interest (Haidt, 2012). Thus, one of the more important purposes of our theory is to find counter examples, rather than simply trying to 'prove' the theory is correct. Sometimes policy-making institutions do not engage in 'degenerative democracy' but instead find ways to craft policies that produce more (not less) social justice. It is important for the development of a democratic theory of public policy to find such counter examples.

The purposes of this chapter are to set forth the basic tenets of the social construction theory of public policy formulation and its implications for democracy. In the first section we explain the connections between social construction of target populations and distribution of benefits and burdens. We then turn to a discussion of the various types of policy designs (tools, rules, rationales, implementation structures) that are commonly used and show how differences in the social constructions of target populations are systematically associated with differences in policy designs. The final section demonstrates how public policy designs impact political participation and the implications for democracy.

SOCIAL CONSTRUCTION AND THE DISTRIBUTION OF BENEFITS AND BURDENS TO TARGET POPULATIONS

Social constructions refer to the value-laden images and stereotypes of social groups that are strongly held by a significant portion of the population (Best, 1989). These often take the form of describing people as 'deserving' or 'undeserving.' Sometimes the constructions have become so extreme that the 'undeserving' people become the object of hate and ridicule. Social construction theory posits that there are multiple interpretations of 'reality,' and that these interpretations produce reactions and consequences. In our framework, social constructions are the ways that reality is defined and understood. These are emotional and not easily dislodged by empirical facts or countered by attempts to reframe the issue. Social constructions are positive and negative values that have been assigned to objects, people, ideas and events. They may become so ingrained that people believe the constructions are as solid as empirical facts. For example, people in many societies accept the notion that women are inherently inferior to men when it comes to mathematics when in fact any apparent differences may well be the product of the social construction itself. Many societies have gone through periods of history when one or another racial or ethnic group was considered inherently inferior in terms of intellect or morality – think of Jews in Hitler's Germany or blacks in the eighteenth- and nineteenth-century American South. Eventually, people may come to see these beliefs as social constructions, not facts.

Target groups are created by public policy itself as it draws some within its domain for benefits or burdens, and excludes others. Target groups include interest groups as well as socially defined groups but are not contiguous with these, as policy designs draw the boundaries that identify who the targets actually are.

Social constructions

	Positive (deserving)	Negative (undeserving)
Higher political power	*Advantaged* Middle Class Homeowners Business Elderly Soldiers/Military Health Care Providers	*Contenders* Wall Street Brokers Big Banks & Lenders Big Corporations Big Unions

Lower political power	Women
	
	'Dreamers'
	
	Students
	
	Mentally Handicapped
	            Homeless
	
	     Families in Poverty
	Children
	
	Dependents
		Drug Users
		
		Sex Offenders Welfare Cheats
		
		Young Minority Males
		
		Undocumented Immigrants
		
		Terrorists/ISIS/Taliban
		
		Deviants

Figure 19.1   Social construction of political groups

The theory of how policy makers choose targets for benefits or burdens is laid out in Figure 19.1, where the political power resources of the group interact with their social construction to create a policy landscape with significant implications for political leaders.

In Figure 19.1 the vertical axis reflects the political resources of the target groups, such as their size, voting strength, money, positions of authority, organizational capacity, passion, energy and the like. At the top are those with considerable political resources that could be brought to bear on a policy design and at the bottom are those who have little or no political power resources. The horizontal axis reflects the positive or negative social constructions of the group. On the left are those with positive constructions, which include such images as deserving, and good. There are 'warm' emotional feelings toward these people. They are viewed as hard working, competent, contributing to the public good and morally upright. On the right are those viewed as undeserving who may be thought of as evil, cheaters, selfish, disgusting, lazy, undisciplined, dangerous, violent and immoral.

We have labeled each of the quadrants: advantaged, contenders, dependents and deviants. The actual placement of groups (or events, ideas or places) is a matter of empirical research, but for the purposes of this chapter we have placed them in accord with how groups might be viewed by a hypothetical political leader during the current decade. Some constructions are generally consensual and others are quite contested, which results in

some groups being placed more toward the center on the horizontal axis. The extent of political power also is a matter of empirical study, but for the purposes of presenting the theory, these are hypothetical (but realistic) portrayals.

'Advantaged groups' (upper left hand quadrant) are those that have considerable political power resources and also are positively viewed by a significant portion of the population. Groups in this quadrant – at least in the United States – include, among others, the middle class (no one seems willing any longer to talk about the 'working class'); small businesses that are viewed as job creators and the representatives of 'main street' America; veterans and the military more generally; and health care providers. Other groups that might be placed here include scientists; the idealized family of one man, one woman and a few children; Judeo-Christian religious groups; and family farmers.

Advantaged groups tend to receive benefits from public policy because of their political power but also because they are generally viewed as 'deserving'; allocating benefits to them usually does not raise opposition. Those who receive the benefits certainly do not object and others generally believe these groups deserve what they are getting. Advantaged groups provide political leaders with lucrative ways to generate political capital without incurring the wrath of other groups. In fact, political leaders who espouse the virtues of these groups and propose legislation that will benefit them tend to be regarded as good leaders.

Examples abound in US policy (see Van Oorschot, 2006 for some differences in European policy). The homeowners' mortgage interest tax deduction costs federal and state governments an estimated $70 billion per year, three-fourths of which goes to families with incomes over $100,000 (Fischer & Huang, 2013), yet is almost never among the list of 'middle class' taxes that Republicans and Democrats have been promising to cut for the past two decades. The social security program for the elderly has been called the 'third rail' of American politics and even modest reforms that would extend the sustainability of the fund cannot be agreed to, due to the positive image of the elderly and their political strength (Campbell, 2012). Many of the hundreds of riders in the 2014 omnibus budget bill – the first budget bill to pass Congress in four years – provide benefits to advantaged groups (DeBonis & Snell, 2015).

Advantaged groups are not entirely free of burdens, however. Middle class people are still taxed, even though some propose doing away entirely with income taxes in favor of more regressive sales and property taxes. Environmental policy by necessity has to impose regulations on business and other advantaged groups. Businesses, facing threats of hacking and liability for leaks of personal information, must strike the difficult balance between security and privacy. Sometimes advantaged groups are pitted against one another. For instance, consumers would like food to be labeled with its country of origin and genetic modifications, but US farm groups oppose such action (Ingram & Ingram, 2006). Everyone wants to have clean water, but business, farms and industry have long used rivers as a primary place for disposing of waste. As pointed out below, policy makers become quite clever in their choice of rules, policy tools and rationales when forced to provide burdens to advantaged groups.

'Deviant target populations' present a second highly lucrative way to craft public policy for the purpose of political gain. Deviant target groups are widely disliked or even 'hated'; political leaders have much to gain by punishing them, and almost nothing to lose, since these groups have very low participation rates and in some cases are even barred from

voting (Uggen & Manza, 2002; Guetzkow & Western, 2007). Punishment of such 'unde-serving' people is widely regarded as fair and appropriate. Felony disenfranchise laws exist in several states that prevent thousands of people every year from voting even after the person has completed their sentence (Uggen & Manza, 2002). Expansion of the crimes that are punishable by imprisonment has produced a startling upsurge in the US prison population from the early 1970s to the beginning of the twenty-first century (Schneider, 2012). Deviants include criminals, sex offenders, welfare cheats, undocumented immi-grants, terrorists, ISIS and the Taliban. In previous eras, deviants included flag burners, communists, Klu Klux Klan members and homosexuals. Some radical advocacy groups such as Black Lives Matter and groups labeled as 'hate groups' by the Southern Poverty and Law Center are considered by some as deviants. Drug users, once labeled as dan-gerous or at least totally undisciplined (rather than 'sick'), became a means of earning political capital through punishment. It has not escaped notice that in the 1960s, political leaders under serious challenge from the left could solve three problems at once simply by enforcing marijuana laws: this led to the prosecution and imprisonment of many 'radical,' long-haired college students, black activists and anti-war protesters. As Democrats joined in, a massive expansion of imprisonment began and continued virtually without excep-tion until the turn of the century, when rates finally began to slow or even be reversed in some states due almost entirely to the cost of imprisonment.

People construed as deviants sometimes get a break from public policy. If policy over-reaches to the point that it is too costly (as in imprisonment), unfair (in the denial of rights to LGBTQ couples) or tragic (as in the disproportionate killing of innocent unarmed young black males by police officers), then more beneficial policy may be forthcoming. Periods of beneficial policy, however, may be short-lived as the political capital gained from being 'tough' rather than 'soft' on an issue is enormous (Schneider, 2006). In every era, the United States has singled out some group to 'get tough' with – from the ethnic Japanese citizens in WWII to communists, socialists, flag burners, drug users, criminals, undocumented immigrants or Syrian refugees. The impulse to demonize some group for the purpose of gaining political capital continues unabated.

'Dependents' are those with little power but positive social constructions: they are deserving, but also needy and helpless (Bruch et al., 2010; Fiske, 2011). Women, widows, children, disabled, the mentally ill, families in poverty, the homeless and most students fall in this category. Policy for dependents must be crafted with great care. Political leaders have to appear to be compassionate toward these groups but they do not want to spend money here, as the opportunity for political capital is quite low or even non-existent: their lack of political power curtails their receipt of benefits as they have not much to give in return. Using resources on dependents takes away from the ability to provide further benefits – tax cuts, subsidies – for advantaged groups. Yet if policy ignores these groups completely, the broader public may take pity on them and view political leaders as mean-spirited or stingy. At the same time, some groups in the dependent category, such as women and students, could mobilize and exercise much greater political clout if political leaders appear mean-spirited or misogynistic.

Thus, benefits provided to dependents tend to be small but widely proclaimed, whereas burdens tend to be more of omission than commission.

When burdens are imposed on dependents, the rationalization may be that the restriction is 'for their own good.' This type of language is commonly used in state legislatures to

justify restrictions on access to abortion and family planning. Some restrictions have been justified as attempts to get the woman to change her mind on the grounds that abortions have long-lasting negative psychological effects.

'Contenders' also present complications in terms of policy. Contenders are those who have considerable political power but are viewed negatively by the general public. The fact that governments themselves are in this category helps fuel the tax-cutting frenzy in that it puts money into the hands of advantaged or other groups that are not 'government.' Contenders include Wall Street brokers, big banks, big lending companies, big corporations, big labor unions, big oil-polluting industries, gun manufacturers, Washington lobbyists and wealthy individuals.

The political power of these groups is so substantial that policy makers have to pay attention to them or risk being denied the funding they need for re-election. Yet tax breaks or regulatory relief for these groups engender the ire of the general public. Legislators do not want to be caught acting in the interest of people or groups that some perceive as shady. Thus, much of the positive policy for these groups is hidden or *sub-rosa*, and only the more astute investigative journalists and political junkies are able to find the hidden subsidies. For example, the omnibus budget bill passed by Congress in December 2015 included a rider that protected 501(c)(4) organizations from Internal Revenue Service (IRS) scrutiny over their campaign contributions. These non-profits are statutorily defined as 'exclusively' public welfare service providers, but the IRS has modified that definition to say that such organizations need to 'primarily' be public welfare service providers, defined generally as making up at least 51 percent of their work. Many of these groups have been formed for the explicit purpose of providing massive 'independent' funding to political campaigns and have objected to IRS audits. This little-noticed provision in the omnibus bill protects them so that they may continue to spend unlimited funds so long as they are not 'coordinated' with the candidate. And they do not even need to reveal who their donors are.

POLICY TOOLS, RULES, IMPLEMENTATION STRUCTURES AND RATIONALES

Policy designs consist not just of target populations, their social constructions and the distribution of benefits or burdens but a host of other elements as well. Important among these are tools, rules, implementation structures and rationales (Ingram & Schneider, 1990, 1991; Schneider & Ingram, 1990). Policy tools are defined here as the motivational aspects of the policy design. These are intended to get someone (agency officials or target groups) to behave in a way that they might not have done otherwise. Rules are simply directives that say who has to do what, when and where. Among the most important rules are those that impact timing and establish eligibility for a policy's benefits or burdens. The implementation structure is the plan written into the policy that directs lower-level agencies or groups in how to put the policy into place and carry it out. Rationales are the justifications provided for the policy, making the policy appear to be fair, responsible, logical and necessary.

Tools are vitally important in understanding the impact of social constructions because the tools themselves contain underlying assumptions about the capacity, intentions,

motivations, intelligence and other aspects of target group behavior. Some of the main types of tools are authority, inducements or sanctions, capacity-building, hortatory or persuasive proclamations and learning.

Authority tools rely simply on hierarchical authority. They assume that the target group (or a lower-level agency) is motivated to follow orders even without the threat of sanctions, as it recognizes the superior position and expertise of those higher in the policy hierarchy. Authority tools assume that those at the top of the hierarchy have more expertise, experience or information and know what they are doing. Inducements are positive ways of obtaining the desired behavior of the target group, including tax credits or deductions or protection from liability. Sanctions seek to shape behavior through punishments, including prison, fines, the death penalty and the like. Capacity-building tools enhance the capacity of the target group to take a desired action, and can include informational campaigns, education, subsidies, free information and outreach programs. Hortatory tools are simply proclamations and rhetoric that urge and encourage target groups to comply with policy. Finally, learning tools enable the target group to learn about its own successes and failures and take corrective action. An example of this is the use of evaluation research to ascertain the effectiveness of policy or the inclusion of research and development funds.

Implementation structures are primarily collections of rules, and range from 'strong statute' models where everything is worked out in the highest-level policy (usually a statute) to 'agency discretion,' where the statute simply sets out the goals and leaves everything up to the agency.

Rationales vary also by target group but may focus on fairness, justice and efficiency. They may include language that the policy is 'necessary for the public interest' or for a target group's 'own good,' – good-feeling expressions of why the policy needs to be in place and why or how the design can be expected to achieve the putative policy goals.

POLICY DESIGNS FOR TARGET GROUPS

For any given issue, there are multiple ways that political leaders might choose among target groups, tools, rules, implementation structures and rationales in order to achieve a putative policy goal. Creating a policy design is a creative process of selecting target populations and the other elements in an attempt to make the policy seem reasonable while at the same time trying to ensure that political gains will come from it and avoiding political loss to oneself or to inflict political embarrassment on one's opponents.

To reverse the remarkable growth of income inequality in the United States, for example, political leaders at the local, state and national levels might increase the tax rate on the highest income categories. Instead, the tax rate across the board has systematically been reduced in such a way that exacerbates the inequality between the richest 1 percent and the other 99 percent (Piketty, 2011). Another effort to address income inequality includes the minimum wage. Even though some increases have been given, the federal minimum wage is not a 'livable' wage and keeps millions of families beneath the poverty line (Gould et al., 2015). Companies could be subject to regulations that cap the gap in pay between CEOs and ordinary workers. Governments could provide subsidies to employers who hire more people and pay them better, or could require government contractors to pay a 'living wage' in order to be eligible for contracts. Public works jobs are a possibility.

Governments could engage in 'put America first' persuasive ads to encourage consumers to buy from US companies. States and local governments could establish public banks to hold public funds, using the interest for local projects. Stronger regulations of banks and Wall Street investment firms could help lower-income families.

Too often, the issue is not which of these policies would have the greatest impact on income inequality, but rather what would be the political gains or losses associated with the different target groups. Given the social construction of various income groups, it is no surprise that reducing income inequality is scarcely mentioned by politicians or candidates. The tax burden on the highest levels of income has steadily declined over the past decades from a high of over 90 percent to its current level below 40 percent. Public works jobs would provide advantages to the unemployed and people who are poor – a dependent target population that generates very little political gain for those who attempt to provide services to it. Not only can advantaged groups continue to gain tax breaks but contenders who have power but are viewed negatively are continually able to carve out lucrative tax loopholes for themselves generally without much public notice. Since low-income people also have the lowest levels of political participation, are generally not organized for activism, and often do not associate improvement in their own situation as a result of public policy, it is no surprise that income inequality continues to grow. As Kahneman and Tversky have shown in their prospect theory of decision making, people work much harder and risk more to protect what they already have than to gain something new (Kahneman, 2011).

Similarly, drug use could be addressed by ever-more punitive responses to drug use or possession – the preferred policy design from the early 1970s to the present in most states – by funding rehabilitation programs for users, or simply by leaving people alone unless they commit another crime (Lejano et al., 2013). Only in the past few years have a few states voted to legalize the recreational use of marijuana. The choice depends largely on prospects for political capital, which in turn depends on how drug users are socially constructed. Are they criminals who deserve punishment, or are they 'sick' people who need help, or are they no different than people who drink alcohol or eat chocolate with no notice by governing authorities unless they commit some other crime?

Some of the 2016 US presidential candidates have argued that, as part of the 'War on Terror,' the United States needs to prohibit Syrian refugees from entering the country. These statements were made in response to the December 2015 terrorist attacks in San Bernardino, California by a married couple of Syrian origin. Congress, in response to the Paris attacks in November, passed a bill 'pausing' the inflow of refugees and adding FBI screening to the already-intensive screening conducted by Homeland Security. Proponents of gun control use these incidents as a way to make the case for tighter restrictions on gun ownership and ammunition purchases.

The increase in (and publicity surrounding) police shootings of unarmed black males has produced increased scrutiny of the use of police force through Department of Justice investigations of the police culture of specific departments. Some police departments across the country are putting in place measures such as body cameras, as these have falsified a number of the police 'stories' and resulted in officers being charged with manslaughter or, in some cases, murder. In others, the police seem just to be following the rules, in which case there are calls for a review of those rules. So far, no department has literally taken guns away from officers on the street permitting only the use of Tasers.

The choice of policy designs lies largely in the political capital to be gained or lost. Choices,

however, are constrained by boundaries on how target groups can be socially constructed and still be believable, and how the other elements of design can be combined in a persuasive narrative that appears to address the problem in a way that seems logical and justified.

Several decades of research have verified some of the patterns expected by the social construction theory (see Pierce et al., 2014; Schneider et al., 2014 for extensive reviews across a variety of different policy arenas). Advantaged groups not only receive more benefits, they receive them in more respectful ways (Mettler & Welch, 2004). They get tax breaks to ease the tax burden and put more money into the hands of the middle class. Their subsidies tend to be broad-based and universal, implemented without means testing or tests of personal virtue such as drug testing. Rationales focus on the fact that these people have earned the benefits provided by the policy or that giving them these benefits is essential for the public interest. Welfare recipients in many states must undergo periodic drug urine tests to stay eligible for benefits, but no such requirements are made of social security or Medicare recipients, farmers who receive significant farm subsidies, or business owners who receive federal research and development grants.

While dependent groups may also receive benefits, usually these are means tested and the clients have to establish their own eligibility. This often requires extensive documentation and periodic renewals, and investigation into their personal behavior (Mettler & Soss, 2004).

No better examples can be found than between the policy designs for social security (including social security disability insurance) and the general welfare program currently called Temporary Assistance for Needy Families (Soss, 2005). When a person becomes eligible for social security at age 65, they are notified of this fact by the federal government. They are invited to make a phone call and set up a telephone or email appointment with a representative to discuss how to proceed. Individuals can mail in their birth certificate and other documents to a local office and they will be returned in less than a week. Social security informs recipients each year of how much they will receive and the phone number to call if they have an issue with the amount. Beneficiaries do not have to reapply or show that they need the money. Once eligible, they do not need to interact with any local, state or national bureaucracy.

Welfare applicants, on the other hand, have to appear in person at an office with extensive, complicated paperwork and documentation. As Soss and others have reported, applicants for welfare or food stamps are treated with disrespect, as suspicious and possibly fraudulent, whereas advantaged groups are not (Soss, 2005). Advantaged groups tend to be notified when they are eligible for benefits (like social security and Medicare), whereas dependents have to figure it out themselves and go through an extensive application process to prove they are eligible. Generally, policy designs for advantaged groups involve direct subsidies and are broad-based or universal, with less complicated documentation and less intrusion into one's personal life. As Soss points out,

> A closer look at the rules and procedures reveals that SSDI [Social Security Disability Insurance], program designated for the more deserving target group does far more than AFDC [Aid to Families with Dependent Children] to accommodate and encourage applicants. Indeed people who seek AFDC benefits encounter a sequence of unpleasant procedures . . . [For SSDI] Aside from documenting their work histories and medical conditions, claimants are asked to provide little additional information. Their domestic arrangements are left private and they do not have to establish any sort of virtuous personal behalf as a precondition for benefits. (Soss, 2005, p. 297)

Soss goes on to explain how welfare recipients have to prove there is 'no man in the house' and that they are looking for work even if they have young children whose child care would cost more than their minimum wage jobs. In some states, they have to take drug tests to prove they are drug-free.

Policy design for advantaged groups tends to follow the 'strong statute' model in which the federal government maintains control and lays out the rules in excruciating detail so that political leaders can be ensured that they will receive the credit for the allocation of these benefits. Welfare policy, on the other hand, tends to be devolved to the states so that these expenditures are the 'fault' of the state, not the federal government, at the same time protecting federal political leaders from the appearance of being stingy and mean-spirited.

The differences in policy designs for Medicare and Medicaid follow a similar pattern. Piatak (2015) summarizes some of the key differences. Medicare is for the elderly who have worked and contributed to the system, whereas Medicaid is for the low-income, including the elderly and disabled; Medicare is federally funded, Medicaid is funded at both the federal and state levels, and most of the implementation rules are at the state level. Eligibility for Medicare is universal for all above age 65 whereas Medicaid eligibility varies by state and in many states is severely restricted. When the US Supreme Court ruled that the Affordable Care Act could not require states to expand their Medicaid programs, many Republican-controlled states refused to expand their rolls even though almost all of the funds from any expansion of the program would come from the federal government. The political gain from attempting to stop the successful implementation of a key program of the Obama administration was believed to be greater than the gain that would be obtained from those beneficiaries of the program. This was a clear illustration of the political gains for state political leaders of opposing a benefit program that would help millions of people nationwide but whose participation level is so low that there is more to gain from a show of opposition to the incumbent, Democratic president.

Policy designs for contenders follow a complicated and tortuous path, one that typically is so *sub-rosa* that the general public is unaware of the benefits these individuals and groups receive. The spate of mass murders has only recently made clear the huge gaps in gun control policy that permit guns to be sold by individuals or at gun shows without any of the regulations that are in place for retail. Much of the opposition to the 'fast track' authority for the Trans Pacific Partnership has been fear that powerful groups will manage to get extensive tax breaks and avoid regulation without the benefit of Congressional or public scrutiny. Policy designs sometimes inflict burdens on contenders, as in bank regulations, but these tend to be easily challenged in the courts or postponed for very long time periods. For example, most of the burdens the large oil and coal companies will incur in efforts to actualize the Paris climate change accord of 2015 are postponed far into the future.

Crafting policy for dependents is similarly complicated. Examples from the Arizona legislature (http://www.azleg.gov/) illustrate the risky nature of imposing burdens on people who are positively socially constructed but lack political power, even when the policy could benefit an advantaged group. In the 2015 session, a legislator claimed that people were taking their pets into stores and restaurants on the premise that they were service dogs. To address the issue, the legislator introduced a bill that would require individuals to obtain a license from the Department of Economic Security verifying that

they are disabled and need a service dog. Advocates for the disabled rallied in opposition until the bill was withdrawn, even though business groups have more political power than disabled groups. The Arizona legislature also slipped into its omnibus budget bill a provision that reduced the lifetime eligibility for Temporary Assistance for Needy Families to one year – the lowest eligibility in the United States. Most advocates for the poor did not know the provision was in the bill, which was passed in the middle of the night scarcely 36 hours after it was first introduced. The 2015 legislature also passed a bill that made it a misdemeanor for a person to push a walk button at an intersection if they did not intend to cross the street. This bill was explicitly aimed at panhandlers (poor people seeking funds from motorists stopped at red lights). The legislator who introduced the bill claimed that they purposely pushed the walk button to make the cars stop so they could 'harass' the drivers for money.

Policy designs for deviants follow the 'get tough on (insert the enemy of the era)' and political leaders frequently compete with one another to see who can be the 'toughest' on whatever groups are the most stigmatized and most feared. To gain political capital, politicians of both parties too often attempt to manipulate the social construction of these groups (from dependent to deviant) in order to justify punishment. When inflicting punishment, policy makers tend to favor strong statutes, with the rules carefully written to avoid discretion at the lower levels that might grant relief to the presumed deviant population. The turn toward mandatory minimum sentences is an example, as are the 'three strikes – you're out' law and the sentencing guidelines that sharply restrict judicial discretion.

THE MESSAGES OF POLICY DESIGN

People actually experience public policy. This phrasing may seem puzzling, but there is no question that the general public 'blames' government for almost all of the things that are 'wrong' with the country. And people do experience policy every day in a myriad number of ways as policy impacts almost every aspect of their lives even if they cannot trace their situation explicitly to any one public policy. Nevertheless, one's income level, past and future opportunities, educational level, status and extent (or lack) of rights are all impacted by historical and contemporary public policies. But the experiences people have differ extensively: some are treated as advantaged in almost all aspects of their lives whereas others are systematically treated as dependents (needy, helpless), deviants (dangerous) or contenders (greedy, selfish). Young black men, for example, tend to be treated as dangerous and suspicious not only by the police, as illustrated through the hugely disproportionate imprisonment rates and deaths at the hands of police, but also by other people who may lock their car if a black person is nearby or even cross the street to avoid walking past them on the sidewalk.

Although some people are systematically treated in just one way, others experience life across various social constructions. A divorced professional mother of three, who holds a high-ranking position in her company, is likely to have much more varied experiences. Within her company she may be asked to bring the coffee or organize the pot luck even as she heads a department. If she is black or a minority, she may be confused with the maid after hours or on Saturday when she isn't dressed up, or as the secretary when she's

perfectly coifed. When one of her children gets in trouble at school, she may be subjected to lectures about how a single mom should raise her children; if one of her children gets in trouble with the police she can expect to be treated as a bad mother who probably uses drugs and is in trouble herself.

Considerable empirical research has documented the messages of policy design and the patterns of orientations, attitudes and participation that follow (Soss, 1999; Mettler & Soss, 2004; Campbell, 2012). Advantaged groups – who receive benefits with respectful tools, rules and implementation structures – receive messages that they are valued, good, responsible people who deserve what they are getting. Rationales focus on the importance of these benefits to the broader public interest and the fact that the recipients have earned them. They tend to benefit from strong statutes enforced at the federal level and from generous state and local policy.

Dependents, on the other hand, get the message that they are needy and helpless. At best they are treated with pity; at worse, they come to understand that their problems are not 'public' problems at all, but should be addressed by non-profits and religious groups or charitable contributions. Contenders come to know that providing benefits to them is problematic, and that they have to compete with others who are more worthy. They are viewed with suspicion, but political leaders fear encountering their wrath, as their control of money especially in the post-'Citizens United' era means that their interests have to be addressed. They learn to conduct their politics in private.

Individuals constructed as deviants learn that they are dangerous, subject to racial profiling by law enforcement and vigilantes, and outside the mainstream of society. Their problems are of their own making and therefore no one has any responsibility for helping them.

These messages become embedded not only in policy but in people's everyday experiences with their society – much of which is shaped by historical and contemporary public policy. Advantaged people tend to believe their interests coincide with the public interest and that they deserve even more than they are getting. Thus, they tend to be supportive of government efforts that benefit them, but disdainful of government in general and in most of what it does that benefits someone else. They are active in all forms of political participation, including voting, interest group activity, contacting legislators and following politics.

Dependents get the message that they are needy and helpless and that benefits directed to them are a handout. They may even come to believe that others are far more worthy than they are. Political participation tends to be very low; these groups exhibit low rates of voting and low interest in politics or public policy, and are very unlikely to contact public officials.

Contenders know they are viewed with suspicion so their activity tends to be more private than public. They know that they are disliked, so they make efforts to proclaim their concordance with broad-based public values through ads and public information programs. High rates of voting are common. These groups, however, rely mainly on money and access to power. They create 501(c)(4) organizations ostensibly as social welfare programs but can then channel massive campaign contributions 'independent' of the candidates without identifying themselves. They are able to challenge policy that imposes burdens on them through the courts and through agencies during implementation.

Deviants are either angry and oppressed or resigned to their circumstances. They

see politics mainly as belonging to powerful groups who get what they want from government. Deviants have the lowest levels of political participation. If convicted of a felony, most are temporarily disenfranchised and in many states are disenfranchised for life. They tend to dismiss ordinary politics, but may participate through demonstrations, strikes or violence. Sometimes groups socially constructed as deviants are able to find an issue or incident that sparks organization and protests – for example, the Tea Party movement, Occupy movement or minority groups such as Black Lives Matter. When alienation becomes extreme, these groups may eschew forming alliances or coalitions with those who are not as adamant, demanding or angry – even if they are in the same party and share the same value structure. The Tea Party faction in Congress has frequently resisted attempts by more moderate Republicans, including some who are far to the right, to engage in compromises even when continued resistance has been harmful to the Republican party overall. Some leaders of Black Lives Matter movement have made clear they are not interested in alliances with other anti-racist groups or with Democrats who champion their cause.

CONCLUSION

Before our initial work, most of the research on social constructions and other emotional aspects of politics had been conducted by sociologists, cultural scholars and communication researchers. Power and the pursuit of self-interest were the driving dynamics in political science studies of public policy. Ideas began to expand, however. Scholars and practitioners alike came to recognize that whoever succeeds in framing the issue will win the debate. Qualitative work brought into the discussion not only matters of democracy, social justice and how policy impacts people but also the role of emotionally charged politics that at times has overwhelmed intellectual, empirical and scientific analysis (Baumgartner & Jones, 1993; Fischer & Forester, 1993; Stone, 1997). The theory of the social constructions of target groups was not intended to compete with these other theories, but to complement them by 'unpacking' the details of how issues are framed and making explicit the elements of policy design. By focusing intently on the complex relationships between social constructions and the details of policy designs, the social construction theory of public policy clarifies the feed-forward impacts of both the social constructions and other design elements on political life and democratic governance.

Once introduced, the idea of social constructions took hold quickly as people recognized the extraordinary presence of value-laden images in political rhetoric. Our initial work in fact went one step further and claimed that social constructions become embedded within the policy itself, thereby reproducing the same kinds of images, framing and stereotypes that influenced the policy decisions in the first place – with damaging impacts on democracy.

In politics, these value-based, emotional images constitute a way of easily framing people, events, words, ideas and countries, helping to form opinions and direct action even in the absence of rational ends/means decision making. Political rhetoric becomes emotional and even hate-driven, as has become so strikingly evident in the 2016 US presidential contest; eventually policy may become equally emotional and hate-driven.

The theory of social constructions of target populations, however, does not just point out problems with democratic governance but also provides counter examples of how social groups have changed their social constructions and gained better policy for themselves, and of how political leaders have relied on scientific and evaluation research to improve policy designs and create a more socially just democratic society.

As times change, and political contexts change, theories of public policy also must adapt to new realities. One of the marked changes that impacts the theory of social constructions is the increasingly negative, hateful, divisive social constructions of target groups. There was a time when many, perhaps most, target groups were perceived similarly by both Democrats and Republicans – either extolling their virtues or harping on their dangerousness and immorality. A few of these groups still exist. Middle class taxpayers and small businesses, for example, are valued by both parties, and terrorists and murderers are feared or hated. Yet many target groups in these first two decades of the twenty-first century are viewed very differently, depending on the perspective. Democrats tend to think that poor people are poor because of systematic, institutionalized inequality that denies them opportunity, whereas Republicans tend to think they are poor because of laziness or stupidity. People who break the law may need to be held accountable, but Democrats are no longer particularly interested in filling up prisons forever with them – especially the non-violent – whereas Republicans tend to see those who break the law as deserving all the punishment that their peers want to inflict on them. As policy makers increasingly turn policy debates into 'good versus evil,' compromise becomes difficult or impossible. New directions in the evolution of the social construction theory of public policy need to take into account the increasingly divided constructions that align with party and ideology. Future directions also need to continue exploring situations where the politics of 'degenerative democracy' have been overcome and policy is designed to solve public problems in a sustainable, fair, participatory democratic society.

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20. Consultants and policy formulation
Helen M. Gunter

INTRODUCTION

Policy formulation is concerned with the relationship between the state and knowledge production, and vital to understanding this are the processes through which knowledge is identified, selected, accessed, used and legitimated. Knowledges (for example, ideas, data), ways of knowing (for example, beliefs, methodologies) and the display of knowledgeabilities (claims made regarding knowledges and ways of knowing) are resources for knowers, or those who self-present and/or are recognized as experts who are 'in the know'. Such knowledge actors do work within public institutions of the state as ministers and civil servants/officials, and they are directly or indirectly accountable to the public. Evidence is revealing increased impact by corporate knowledge vendors, who are known in the vernacular as consultants, who do consulting and hold consultations, within power inflected exchange relationships known as consultancy. These consultants range from individuals to major international companies. Some work directly with professional and service delivery personnel in close-to-the-public situations (such as improving classroom teaching), while some undertake projects within the government machine (such as advising on policy strategy).

Investigative accounts are identifying the major role of such knowledge actors in policy formulation (for example, Jupe & Funnell, 2015), but this largely remains an under-researched area. In this chapter I draw on such resources along with project analysis, particularly based on research into public education in England (Gunter, 2012; Gunter & Mills, 2016, 2017; Gunter et al., 2015). I begin by examining policy formulation as a form of knowledge production, and then go on to examine the dynamics of the role of consultants in policy formulation through various standpoints of the state, politics, networks and power processes. Finally, I present and confront the debates about impact, where I conclude that there is mounting evidence that policy formulation is being changed dramatically. Following Saint-Martin (2000) I conclude that political strategizing in contracting and deploying consultants is a major issue that needs the field's attention.

CONSULTANTS AS KNOWLEDGE ACTORS

Public policy is not only an outcome secured through formal and legitimatized oral (speeches, meetings) and written (consultation documents, legislation) texts but is a knowledge production process. Such processes are both technical – in the form of producing policy that is workable, and hence involves scoping and presenting solutions with delivery plans – and political – in the form of producing policy that can command support. The interplay of the technical and political within this knowledge production process is through four dimensions, which I call the 4Ks:

- *Knowledges*: these can be data, ideas, arguments and theories that shape and underpin what is claimed to be a situation or problem, and what solutions are designed and delivered.
- *Knowings*: these can be the methods and means that generate the ways in which knowledges are made available, and can be in the form of belief statements, discourses using particular languages and practices, to formal findings and analysis from research and/or commissioned evaluations.
- *Knowledgeabilities*: these are postures, talking, arguments and inter-relating with others, together with text production regarding language and claims that exhibit preferred and recommended knowledges and knowings.
- *Knowers*: these are the knowledge workers or actors who use knowledge, knowings and knowledgeabilities to construct the world as knowable. They variously generate, identify, carry and deploy saleable beliefs, ideas, debates and solutions that can be packaged and repackaged. They travel in person, and communicate using new (for example, social media) and traditional (for example, formal reports and presentations) technologies. They are active in knowledge flows, boundary drawing and mobilizations, at different but interconnected scales that are local, national and transnational (Moss, 2013).

These 4Ks of knowledge production are abundant with standpoints, with increased recognition that knowledge for policy is constructed within practice rather than curated in a library that is then transferred (see Gibbons et al., 1994). Consequently, it is important to recognize that the issue is not so much what is known, how and why, but why certain knowledges, knowings and knowledgeabilities come to dominate, while others are silenced, and why certain knowers are preferred and trusted (Gunter, 2012, 2016).

A useful focus for examining this is to consider the predominance of discourses and practices regarding the reform of public policy formulation. Influential texts have travelled the globe (for example, Bobbitt, 2002; Osborne & Gaebler, 1993), some with a focus on particular public services (for example, Chubb & Moe, 1990) that have not only provided policy prescriptions regarding problem identification and solution provision but have also called for the limitation of or even withdrawal of the state. Business cultures, structures and methods have been introduced based on imaginings and ideologies of right wing governments (particularly Reagan in the United States and Thatcher in the UK) (see Hood, 1991). Claims have been made that knowledge production within public institutions is suspect and possibly anti-business, and so there has been an increase in contracting the 4Ks from outside. As Bakvis (1997) notes, 'a quick glance at the crucial advisory space enveloping core executives in a number of countries suggests that this space is increasingly being populated less by key bureaucrats, pressure group representatives and close partisan advisers and more by gurus from think tanks, polling firms and management consulting organisations' (p. 85). This can be illustrated by the reform of public education through endogenous and exogenous privatization processes, where forms of 'expertocracy' (Grek, 2013) are emerging within and between public policy processes:

- Supra-national organizations, for example, the World Bank (see Klees et al., 2012).
- Supra-governmental organizations, for example, the European Union (see Souto-Otero, 2015).

- Think tanks, for example, Thomas B Ford Foundation (see Spring, 2014).
- Philanthropists, for example, Broad Education Foundation (see Saltman, 2010).
- Businesses, for example, Pearson (see Ball & Youdell, 2007).
- Professors in formal networks, for example, Educational Effectiveness and Improvement Research (see Gunter, 2016).
- Consultancy firms and individuals, for example, McKinsey & Company (see Coffield, 2012).

As Kingdon (2003) argues, this range of 'policy entrepreneurs' invests their time and other resources into policy formulation (p. 122), and are actively involved in and benefit from permanent restructuring (Pollitt, 2007). While these knowledge actors engage in knowledge exchanges within and for problem posing and solving within public policy, and may be recognized as being 'consulted' by governments, being de facto 'consultants' and engaging in 'consultancy', here I focus specifically on those who take on the formal label, identity and role as consultants, who are consulted, who do consultations and participate in consultancy as a power process.

Consultants can work 'solo' and/or may associate in networks with others who have professional credibility in regard to a public service, whereby the rolling back of the state has released former salaried knowledge workers into the market place (see Gunter & Mills, 2017), where 'virtually any former civil servant with a cellular phone, fax machine and computer can set themselves up as a consultant, ready to sell their specialized expertise to former employers and others' (Bakvis, 1997, p. 106). Consultants can also be employees of global companies (for example, Deloitte, KPMG, McKinsey & Company, PricewaterhouseCoopers), where it is usual that management consultants do not have a specialism or credentials in the area that they are working in (Guttman & Willner, 1976), and indeed it is argued from within the industry that having a career interest in consultancy is seen as suspect (Pinault, 2001). Nevertheless, consultants position themselves in the market as offering particular types of knowledge (for example, management processes, information and communications technology), ways of knowing (data, narratives about what works), and bring business 'know how' and 'can do' track records legitimized through new languages, ways of working and rules of the game: 'although governments may initially have invited them in, management consulting firms have made themselves ever more attractive if not indispensable' (Bakvis, 1997, p. 109).

Exchange relationships are based on a needs-supply contractualism whereby governments (and public service organizations) bring in consultants based on a remit, and consultants offer a brand and track record. Policy formulation is a site for such activities in order 'to improve public services through the injection of competition and private-sector managerial skills, and through the use of modern IT systems' (Craig with Brooks, 2006, p. 1). Consequently, consultants are knowledge actors who retail the self (name and image is trusted) as known about, with the right type of knowledges, knowings and knowledge-abilities for the modernization of public policy processes and outcomes. The activity of consulting tends to be functional: removing dysfunctions through problem identification, scoping and resolution (see Gunter et al., 2015). Consultants may engage with the realities of practice, where how people do and think about their work is seen as problematic, and hence is a site for intervention through knowledge templates such as performance data collection and feedback systems (for example, 360 degree appraisals by employees of their

line managers, and feedback to line managers about the data with recommended corrections to behaviours). Consultants as individuals and/or in teams are deployed to maximize efficiency and effectiveness, with an emphasis on contractual delivery through billability – hours worked are linked to invoicing, and fees are based on value for money calculations. Hence, consultancy is a formalized rational contractual exchange, but it is also a power process that is historically located. In the next section I view consultancy from a range of vistas in order to illuminate and give perspective on what consultants do, how and why.

CONSULTANTS AND KNOWLEDGE PRODUCTION

Consultants are actively involved in policy formulation in three main ways: first, they are brought into government to undertake the work of government, either at the centre (sometimes replacing officials) and/or through winning contracts to deliver services; second, they are brought into government to diagnose and advise, and to undertake commissioned projects such as scoping studies and evaluations; and third, they contribute to agenda setting and the discursive regime through their recognized status and business dispositions as 'modern' and 'innovative'. This can be considered through four main interconnected standpoints of the 'state', 'politics', 'networks' and 'power' processes. This enables the spotlight to be focused on formal institutions of the knowledgeable state with due attention to role and hierarchy; knowledgeable politics regarding agenda setting and decision-making within and external to the state; knowledgeable networks through contacts and influential relationships that both de-centre the state and also interconnect the state and politics with business, interest groups and wider civil society; and knowledgeable power, where Bourdieu's (2000) thinking tools are used to examine how the dominant and domination work within practice. I therefore examine consultants, consulting and consultancy from these standpoints, and in doing so I shall draw on and illuminate using examples from the reform of public education.

Knowledgeable State

The state is knowledgeable in a range of ways. Pearton (1982) argues that the state is 'researcher', 'producer' and 'user', where members of governments and public administrations seek expert advice and also commission projects from experts. Increasingly the 4Ks associated with this approach to policy formulation are about monitoring and evaluating public services and improvement interventions through the production of data, and so the state takes control variously as a 'manager' (Clarke & Newman, 1997) or 'regulator' (Moran, 2007) or 'evaluator' (Neave, 1988).

   As a site for knowledge production exchange, the state is legitimated through sovereign authority and the mandate to govern, and hence can bring or buy in expertise to advise, recommend and deliver. In doing so those who contact and contract external expertise not only engage in exchanges within legal and procedural systems but also shape and control the knowledge ontologies and epistemologies that have generated problem identification. The entry of consultants into state institutional and constitutional processes raises some important issues for how their contribution to policy formulation can be engaged with and understood.

There are four main ways in which contracting and entry can be examined. First, individuals can be accessed by the state based on claims that they are distinctive and trusted knowers about problems, as a form of 'brains contracting' (Guttman & Willner, 1976, p. 35). For example, Ruth Miskin, who owns Read Write Inc, has been very influential in promoting synthetic phonics through the production of resources and training, and has been an advisor for the UK government on curriculum reform in England (Clark, 2014). Second, companies can be commissioned to undertake evaluations and shape approaches to how a problem is understood and engaged with. For example, PricewaterhouseCoopers has undertaken major evaluations of education reforms in England for the UK government, such as a five-year evaluation of the Academies Programme (PwC, 2008), and has scoped the evidence regarding the design and reform of school leadership in England (DfES/PwC, 2007). Third, personnel exchanges can take place between consultancy firms and government departments (see Ball, 2007), where consultants have entered or been employed by government to undertake work that was previously undertaken by civil servants/officials. For example, the UK government National Literacy Strategy in England employed local advisors and trainers locally as state consultants (Cameron, 2010). Fourth, governments have restructured with the use of arm's-length bodies where responsibilities are discharged by 'experts' with template solutions that are at 'one remove' (Burnham, 2001) from central government and legislative assembly scrutiny. For example, the National College for School Leadership (2000–15) in England was set up by the UK government as a non-departmental public body (NDPB, sometimes called a quango) to control knowledge production and leadership training for educational professionals, and it did this through contracting consultants (Gunter, 2012).

Knowledgeable Politics

Politics is knowledgeable in a range of ways, whereby within civil society there are choices to be made involving issues for discussion, enabling participation within events and through the media, and resolution through elections (Stoker, 2006). The 4Ks associated with this approach to policy formulation are about the borders between private matters for individuals and families, and public matters for communities through to nation states and wider global reach. Consequently, this issue is concerned with the public realm, and what is understood as 'publicness' and who the 'publics' are (Newman & Clarke, 2009), with debates about how people and their concerns and interests are sorted and resorted to produce advantage and disadvantage, particularly how class, race, gender, sexuality and age include and exclude (Wilkinson & Pickett, 2009).

As a site for knowledge production exchange, politics as a process speaks to participation in publicly shared problems. Hence, in Western-style democracies the state has intervened to variously provide and regulate, such as security, law and order, welfare and health, and so there has been a process of politicization. Here politics and the state interact within democratic cultures and structures (elections, pressure groups) that produce 'improvements' from the type and quality of schools through to strategies to limit climate change. Researchers within political studies have identified significant changes through processes of depoliticization which itself 'remains highly political' (Burnham, 2001, p. 136). Political decisions have focused on removing education from politics and the site of political decision-making. For example, Wood and Flinders (2014) identify three main

trends: (a) state restructuring through outsourcing or the sale/transfer of publicly owned and administered services into private ownership; (b) the relocation of public problems from political debate to arm's-length bodies, where agencies have a direct delivery remit rather than political discretion; and (c) the privatization of issues that previously were public ones, where the exercise of individual choice means that things do or do not happen. As Burnham (2001) notes, this means that issues and tasks are shifted to seemingly non-political sites, where 'depoliticisation strategies enable the government to . . . off-load responsibility for unpopular policies' (p. 137).

There are two main ways in which depoliticization can be examined. First, discourses about problem posing, and how the issue is framed and presented is one where consultants can shape what is normalized or common sense, and in ways that will make a difference that speaks to people's concerns. For example, while independent research evidence about school autonomy has questioned the causal relationship between independence and improved student outcomes (see Lubienski & Lubienski, 2014) and the limited evidence about the role of school principals and improved student outcomes (see Gunter, 2012), it is the case that consultants (often in networks with knowledge actors from other organizations) have presented business ideas and packages where increasingly it is impossible to think or discuss alternatives (for example, Coopers & Lybrand, 1988; DfES/PwC, 2007; Mourshed et al., 2010). Second, the restructuring of the state means that those who previously were state employees are moving from the role as state consultants and advisors at national and local levels into major international companies or setting up in business themselves. For example, Michael Barber moved from a key role in national policy formulation (see Barber, 2007) into McKinsey & Company, and so worked globally on knowledge production and transfer (see Barber & Mourshed, 2009; Barber et al., 2011). A second example is how the restructuring of the UK state in the provision of public education in England has led to local education advisors and inspectors being made redundant or taking early retirement. Having found themselves unemployed they have set up as solo consultants (sometimes linked as associates in branded groups), who are brought in by schools to support and enable local policy formulation and its interplay with national policy enactments (Gunter & Mills, 2017).

Knowledgeable Networks

Networks are knowledgeable in a range of ways, where knowers interconnect and exchange their knowledges, knowings and knowledgeabilities, and in doing this build trust and generate business opportunities. Such networks may be made up of people from a range of professional or occupational locations, including think tanks, private businesses, universities, professional services (for example, law, education, health, welfare) and philanthropists.

As a site for knowledge production exchange, networks enable people who are concerned or focused on the same issue to interact, where personal friendships along with professional respect means that they can vouch for each other as 'like-minded people'. Hence, the interface between the state, politics and networks is an important site for considering how particular people and groups gain access to policy formulation. Expertise is a matter of recognition through who receives the call, who is included/excluded and who is rewarded/punished, where research in political studies is increasingly interested

in what people do, how they interconnect and issues of influence and impact (see Ball, 2008, 2009; Goodwin, 2009). Interesting cases regarding networking knowledge actors are being examined (for example, Ball & Junemann, 2012), and specifically the way consultants interplay with government and with professionals (for example, Ball, 2011; Cameron, 2010). While much is often claimed regarding the existence and impact of the 'hollowing out' of the state, and the relocation of decisions to established or temporary interest groups (see Rhodes, 1994), on-going research demonstrates that hierarchy endures (Davies, 2011). Policy formulation within public institutions still matters, and it is important to examine how external networks inter-relate with politicians and officials.

The contribution of consultants can therefore be understood through 'institutionalized governance', whereby the state contracts consultants to operate within contractual exchange and delivery relationships (Gunter, 2012, p. 3). This is a formal process of tendering and commissioning, where forms of expertise are procured in support of policy formulation, with remits, project management and reporting. The interconnections between politicians, officials and those they engage with as recognized outsider experts are structured and interconnect as 'regimes of practice' (Gunter, 2012, p. 3). Such regimes are associations that are focused on problem identification, promotion and resolution, where those 'in government' are enabled to frame policy through the advice, ideas, languages and approaches of consultants. For example, the New Labour governments in the UK from 1997 to 2010 created and recreated a regime of practice that designed and delivered a major public investment into the professional identities and practices of school principals as business leaders and entrepreneurs. This fitted in with on-going privatization strategies as a means of enabling public services to be modernized as responsive and customer orientated (Blair, 2006). New Labour policy strategies and interventions provided a consistent message about the necessity of a school leadership imperative if school outcomes were to be improved (for example, DfEE, 1998). In doing so, New Labour not only engaged in exchange relationships with private consultants but also with other knowledge actors from schools, universities and local authorities, where head teachers, professors and local authority advisors took on ubiquitous consultant identities.

Knowledgeable Power

The location and exercise of power is knowledgeable through how and why exchange relationships are central to governing through the state, politics and networks (Newman, 2001). The 4Ks associated within policy formulation as a power process can be examined through Bourdieu's (2000) thinking tools about how a field of public policy such as education is breached by the fields of power and economy, where the economization of a public service is evidenced in New Public Management (NPM) and privatization reforms as solutions to the problem of public service (see Thomson, 2005). Taking the example of education, what Bourdieu (2000) calls a *doxa*, or a self-evident truth, it emerged that private is more effective, efficient and equitable, and hence the state and politics should roll back or even be removed (see Tooley, 2000). For example, public policy has focused on school principals as entrepreneurial leaders of their schools, and how such new identities and practices are integral to transformation through competition, improvement in standards and meeting the needs of parents as customers.

Knowledgeable power processes can be examined in a range of interconnected ways.

First, codification is integral to *doxa* production, whereby consultants identify and package 'new' knowledge for public service professionals to adopt and use (for example, DfES/PwC, 2007). Second, shared dispositions or habitus are revealed through and within exchange relationships, where the consultants are one type of knowledge actor who work outside but also alongside those from other organizations (for example, professors, professionals). Flows of ideas articulated with new languages circulate and are used to stake capital for recognition in a *field* of practice, and so corporatized school principals adopt business identities and practices (for example, Courtney & Gunter, 2015). Third, knowers take up positions within a field and play games (for example, privatization of public education) and within this arena of struggle they demonstrate what capital has value. Consultants have symbolic (modern, upbeat, new), economic (branding, shareholders, globalized reach), cultural (business, markets) and social (the right type of background) capitals that can be staked in the game in play. Business leadership and management are integral to school principal agency and how they seek status in the game (for example, Barber et al., 2011). Fourth, consultants stake their interests and careers in the game, and can dominate through contractual recognition of the vitality and efficacy of what they have to offer, where others can come to mimic this practice (professors, professionals, ministers, civil servants) through how they misrecognize this dominance and its impact on their agency. Not playing, not taking on board their management processes and templates – becomes unthinkable.

Here Bourdieu's (2000) thinking tool of *Illusio* is important, where there is 'a fundamental belief in the interest of the game and the value of the stakes which is inherent in that membership' (Bourdieu, 2000, p. 11). Indeed, researchers have exposed the role of consultants within public policy formulation and the impact this is having on replacing educational matters (for example, teaching and learning, curriculum) with business goals (for example, ownership, budgets, investment, bottom line) (see Ball, 2007, 2012; Gunter, 2012), but the accepted dominance of consultants within the 4Ks means that other sources of information, evidence and ways of thinking are excluded and can be labelled as dangerous. For example, in the UK there has been a drive for evidence-informed policy and practice, whereby ministers and civil servants have sought to access and contract evaluation evidence, mainly by investing in expert commissions, measurement studies and randomized controlled trials. However, policy does move ahead without the use of evidence (see Gunter, 2012), but importantly researchers who raise issues or concerns about curriculum changes have been marginalized or even labelled negatively as 'enemies of promise' (see Gove, 2013).

DEBATES ON THE ROLE OF CONSULTANTS IN POLICY FORMULATION

Examining the dynamics of consultants within policy formulation as a form of knowledge production through the standpoint of the state, politics, networks and power processes opens up debates within the field. However, accessing such research is a challenging task:

> there are few satisfying and no comprehensive studies of expert contracting. People in government, in the press, among the public, and in the political science profession who are familiar with

the subject tend to assume that expert contracting is of limited import. Public interest lawyers who study conflict of interest in government pay limited attention to the contractor workforce. (Guttman & Willner, 1976, p. 40)

This research focus has continued to be marginal within the field; there have been some important studies, such as Saint-Martin (2000) who has mapped and assessed the impact of consultants and consultancy in public policy in the UK, Canada and France. More recently Craig with Brooks (2006) have made a coruscating assessment of consultants 'plundering' £70 billion of UK public finances under New Labour (1997–2010). While consultants may reject assertions that they have too much influence, mostly because they claim to be politically neutral while politicians are not (Bakvis, 1997), there are significant debates about the role and contribution of consultants that demand serious attention.

The entry of private consultants into the state, politics and networks in powerful ways has been identified by Guttman and Willner (1976) as a form of an unaccountable and often invisible 'shadow government' in the United States. Nadar (1976) identifies 'government by contract and grant', which in essence means that public funding and services become 'private government-by-delegation', described as 'policy formation, organizational models, and even the recruitment of Federal executives' (pp. x–xi). In the uncodified constitution of the UK the impact has been identified as a form of 'consultocracy' (Hood & Jackson, 1991) whereby the role of elected representatives within Parliament and as ministers has been usurped by what Hood (1991, p. 9) identifies as a new 'class' within the 'privatisation complex' (Hood, 1991, p. 9). The arguments address a number of key points related to the core purposes of consultancy as a business and the impact of their knowledge products on democratic processes.

The starting point for taking this investigation forward is to recognize that consultants doing consulting within a 'for profit' business of knowledge production known as consultancy are by their very remit designed to commodify and trade in ways that further their interests, and are predisposed to 'governments doing something, anything, rather than nothing' (Hodge, 2006, p. 184). At a very basic level what this means is that consultants have problem identification and solution processes that are proactively worked out, branded, sold and applied as *the way* in which change can be delivered, or what Rasiel and Friga (2002) call 'the McKinsey Mind'. The expertise may be process rather than substantive, with an emphasis on billability linked to the promotion of what is 'new'– 'fashions, fads and quick fixes' (Craig with Brooks, 2006, p. 235). Pinault (2001) goes further with an identification of 'consulting demons' where companies have 'client-consuming dependencies' and are 'a colonial consulting creature designed to thrive on the identification and manipulation of client weaknesses' (p. 1).

While the existence of consultants as a particular type of knowledge actor is important, it is argued that their influence is not so much located in what they are designed to do but in how and why they are identified, accessed and contracted, and how this is politically and historically located (see Hodge & Bowman, 2006). Research has identified how particular policies, as well as changes to the policy formulation that produced those policies, can be causally linked to consultants. Such research is focused on how policy has been designed and delivered in particular ways, not least how privatization and austerity have been framed and secured through consultancy advice and practices: 'management consultants bring an implicit, and at times explicit, policy perspective to the task of

advising governments' (Bakvis, 1997, p. 111), and there is considerable evidence of a direct privatizing agenda where it seems that 'management consultants have made themselves particularly useful in managing cuts' (Bakvis, 1997, p. 111).

Research has also identified a shift from public bureaucracy towards management, where Saint-Martin (2000) argues that reforms such as NPM impact on the relationship between the state and civil society, 'its essence lies in the belief that there is something called "management" which is a generic, purely instrumental activity, embodying a set of principles that can be applied to both the public and private sectors. The main guiding principles of the new managerialism are the pursuit of efficiency, effectiveness, and value for money' (p. 1). Interestingly the Efficiency Unit set up in Whitehall by the Thatcher UK government in 1979 was led by Sir Derek Rayner from Marks and Spencer, and was designed to reform the civil service from within through new efficiencies. Their report (Efficiency Unit, 1994) concluded that they had 'helped Departments and Agencies to adopt good commercial practice, assisted change and enhanced quality of decision making', and importantly it is noted that 'in particular, they have made a significant contribution to the achievement of several important government objectives – notably privatization' (p. 3). It seems that NPM was brought into government by consultants and NPM needed consultants to make it work. Politicians sought such expertise because the modernization of government from the 1960s onwards was directly linked to knowledge production processes from business: 'the possibilities for consultants to provide advice that can appeal to public officials and enhance the state capacity to pursue managerialist policies depend on how much their services are used by businesses, which in turn are closely linked to historical patterns of industrial and corporate development' (Saint-Martin, 2000, p. 3).

How and why politicians turned to consultants to help in policy formulation, and to help redesign the systems and structures within which policy formulation is located, is key to the debates about the influence of consultants. There are technical changes to what is done and who does it, but it is also about democratic processes and how those within public office are accountable. Saint-Martin (2000) considers that NPM means that public issues have been depoliticized, where: 'once politics is out of public administration . . . it should no longer be difficult to import into the bureaucracy management ideas and techniques from the private sector because the presence of politics is the only thing that made public sector organizations different from businesses' (p. 21). Data about public service outcomes (student test scores, hospital deaths, unemployment and welfare costs) are used to shape and control the purposes of those services and the professionals who work within them. Furthermore, the international nature of many consultancy businesses means that these imports are based on globalized knowledge flows that illuminate a relocation of power, and so 'not only may globalization limit what governments can do by way of manipulating economic and political levers but it is possible the use of the levers that remain to them are increasingly being conditioned by ideas emanating from this international community' (Bakvis, 1997, p. 85).

Researchers argue that such changes are making a fundamental difference to government. While elected politicians can handle their complex and high stakes workloads more efficiently and effectively by allowing or even encouraging the 'hollowing out' of democratic structures, systems and cultures, a range of less positive consequences have been identified. Inexperienced consultants are making radical changes to public policy

that is damaging those services, while the dominance of their status and normalization of their presence within government can go unquestioned. For example, it is claimed that 'under New Labour, the whole process of democratic accountability has broken down and been replaced by cronyism, profiteering, spin and outright lies' (Craig with Brooks, 2006, p. 244).

Field analysis suggests that some very serious changes to the fabric and integrity of democratic government appear to be taking place: 'the switch in emphasis from policy formulation to management and institutional design; from process controls to output controls; from integration to differentiation; from "statism" to subsidiarity' (Hood, 1990, p. 205). Consequently, the idea and reality of policy formulation could be under threat (or even disappear). Bakvis (1997) has argued there is a need to take into account that government executives and those who hold office may proactively use management consultants to deliver and bypass the bureaucracy and professional cultures.

Assessing such claims is challenging, not only because there is a lack of empirical research but also because the complexities of change within the state, politics, networks and power processes are difficult to access and track. Furthermore, knowledge flows and mobilizations travel through the business practice of individuals and large companies to 'embedded' contexts that impact on how ideas are recognized, read and enacted or ignored (Ozga & Jones, 2006). Certainly, there is evidence of the continued importance of the nation state, not only as a mediator of different political traditions and cultures but also as an originator of ideas and practices that can buck the trend (Gunter et al., 2016), and where, as Bakvis (1997) argues, consultants have had less of a role in certain countries such as Germany and the Netherlands.

Saint-Martin (2000) confronts the issue of the increased involvement and potential dominance of consultants in policy formulation in a multi-layered analysis that focuses on the relationship between ideas and organizational change. He questions why politicians read reports and listen to consultants, and how the business generated by access to government and public services also impacts on consultants and consultancy. Such complex permeability is linked to constitutional arrangements within the state, and to political cultures and the configuration of civil society, but is also historically located. It seems that while consultants began 'a quiet takeover' (Hodge, 2006, p. 183) from the 1960s onwards, they existed prior to this, and so a prime issue is how and why politicians accessed and deployed this source of advice in regard to modernization. Importantly, this is a time when 'the expansion of externalized management is accounted for not only by the actual but also by the symbolic emergence of market forces, the symbolic strength of institutional investors, and the symbolic decline in state authority and national corporate communities' (Armbrüster, 2006, p. 66). Hence, any investigation into consultants and policy formulation needs to focus on the reforming dispositions and strategizing of politicians who actively use consultants because they are associated with innovation and creativity, and where 'outside advice may be necessary to help political leaders to persuade, cajole or shock bureaucracies to adapt and innovate' (Bakvis, 1997, p. 124). There is a need to consider not only how the right wing governments of Reagan and Thatcher in the United States and the UK took on board and incentivized particular characterizations of what the problem is and how it can be solved, but how over subsequent decades from the 1980s governments of the left and centre may have moderated but certainly not halted such reform strategies. Importantly, the neutrality of consultants is seen as a strength and is in

contradistinction to public administration cultures and civil servants who are recognized as having their own professional interests that may not be in the public interest. What Saint-Martin (2000) and others have identified is the challenge to consultant neutrality, certainly through 'repeat business' (p. 208) where a relationship is built up over time, and where accountability and visibility are at best opaque and possibly hidden. This is a significant matter that affects democratic development and renewal but it is unlikely to bring the public out onto the streets to demand change.

SUMMARY

Policy formulation is a knowledge production process, whereby a range of knowledge actors are involved in the generation and use of knowledges, knowings and knowledge-abilities. The special role of consultants within knowledge production can be identified, understood and explained by examining their involvement in the state, politics, networks and power processes. In doing so, the analysis has identified a significant and enduring impact of individuals and companies on the identification and resolution of problems, particularly the type and delivery of government policies, the privatization agenda regarding public assets and services, and the reform and structure of the government machine itself. The debates regarding this are generating concerns about democratic integrity and transparency in regard to the removal of services and issues from political agendas and public scrutiny. And yet the role of politicians in this process and their use of consultants in order to bring about radical changes demonstrates the need to ensure that political strategizing is central to any analysis and that ultimately it is a political decision to contract consultants, and to ensure that such contracts are subject to public scrutiny. Nevertheless, while there are examples of forensic analysis by researchers (for example, Guttman & Willner, 1976; Hodge & Bowman, 2006; Saint-Martin, 2000; Sturdy et al., 2009), and there are growing bodies of work in particular areas of public services such as public education (for example, Clark, 2014; Gunter & Mills, 2017; Gunter et al., 2015), it is the case that a lot of work is undertaken by investigative journalists (for example, Beckett, 2007; McSmith, 2006; Private Eye, 2012; Toynbee, 2011).

Policy formulation has no doubt been affected by consultants but it is difficult to assess whether it has been reformed or diminished, or is in the process of being replaced or relocated by business management and corporate practices. A recent assessment by Hodge (2006) is that consultants are the beneficiaries of privatization, and have become 'a powerful new and professional interest group in its own right', but are more 'foot-soldiers' than generals (p. 184). Hence, there is a need for caution regarding potential democratic damage to policy formulation, but exchanges of people, ideas, contracts between government and private organizations needs further examination, and a focus on conflicts of interest would help to develop the evidence base. There is a need to research the distinctive and shared contribution of consultants along with other knowledge actors, their institutional location and remit, and how they cannot be homogenized as 'external' actors (Gunter, 2012). In addition, consultants are part of a knowledge production complex where exchange relationships are integral to public policy formulation that takes place simultaneously within and outside government (for example, Spring, 2012). Impact by consultants is cultural and social as well as political and economic, both at different

scales (local, national, global), and within individual nation states with different political traditions and histories. The design, study and capture of the dynamics of policy formulation require forensic mapping and observation of the working of government regimes (contracts, personal links, following the money). At the core of the contribution made throughout this chapter is how researcher attention needs to shift away from questions of government or governance, and towards governing within and through state institutions, political issues, networked relationships and the exercise of power.

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PART VI

FORMULATING POLICY SOLUTIONS

21. Policy instrument constituencies
Arno Simons and Jan-Peter Voß

INTRODUCTION

How do policy instruments come into being and how do they spread? Traditionally, policy scholars have defined policy instruments as the 'tools of governance' or the 'means' to achieve certain goals (Hood, 1983; Howlett, 2010; Salamon, 2002). This view tends to assume that the choice of instruments during policy formulation and decision making follows the definition of problems and goals. Recently, however, scholars have begun to explore a more active side of policy instruments, given to them by dedicated constituencies. While the phenomenon that solutions are developed independently of, and sometimes even chase, problems has been acknowledged before (e.g. Kingdon, 2003), it is only more recently that scholars have studied the 'supply side' of policy innovation and how instruments, through their constituencies, develop 'a life of their own' (Mann & Simons, 2015; Simons & Voß, 2015; Voß, 2007a, pp. 177–8, 2007b, 2014; Voß & Simons, 2014). Meanwhile, a number of scholars have picked up the notion of instrument constituencies, developed it further and tested its applicability in practice (Amelung, 2012; Béland & Howlett, 2016; Jie, 2014; Jordan & Huitema, 2014c; Jordan & Turnpenny, 2015; Mann & Simons, 2015; Mukherjee & Howlett, 2015; Perl & Burke, 2015; Schroth, 2015; Wolff, 2015). This chapter summarizes what we know about the role of policy instrument constituencies in formulating and disseminating policies.

WHAT IS AN INSTRUMENT CONSTITUENCY?

In its most basic form, an instrument constituency is a social arrangement that forms around and works in support of a particular policy instrument or a mix of policy instruments. The defining criterion of an instrument constituency is that it is a specific entanglement of social practices that emerges in connection with the development and deployment of a particular model of governing as a functional tool to achieve policy goals. It is a social arrangement that is both constitutive of and constituted by the instrument. As much as the entanglement and mutual interdependence of instrument-related practices is reflected and communicated, this may give rise to the formation of a collective interest in and agency towards articulating, developing, disseminating and implementing the instrument (mix) that the constituency forms around (Voß, 2007a; Voß & Simons, 2014). It is the solution, not the problem or anything else, around which the constituency gathers. Whereas constituency sub-actors (e.g. individuals or organizations) may of course have an interest in particular policy problems, the constituency as a whole only exists '*for and by* the instrument' (Voß & Simons, 2014, p. 738, emphases in the original), even at times when it invests in problem-defining activities. It is thus important to underline, as Béland and Howlett (2016) do, that 'such constituencies are solely oriented towards defining and

forwarding particular policy solutions, while remaining conceptually separate from, yet collaborating with, those actors dealing with defining policy problems and broad policy goals'.

Defined in this way, the instrument constituency is an analytical concept that fills a gap in our theories of the policy process. Instrument constituencies are 'hitherto unrecognised social entities' (Voß & Simons, 2014, p. 4; Voß, 2007a, p. 177), whose dynamics and impacts we need to take into account in order to explain how policies are made, how they change, how they travel and much more. Instrument constituencies 'signify an important new kind of policy actor', whose role we need to study 'to grasp the mechanics and workings of the policy process' (Béland & Howlett, 2016). The consideration of instrument constituencies is especially important since policy making is often understood essentially as instrument choice (Goulder & Parry, 2008; Howlett, 2010; Salamon, 2002). Where do policy instruments come from? How do they gain authority? How are they 'chosen'? In many cases, such questions can hardly be answered without considering instrument constituencies. As Jordan and Huitema (2014c, p. 911) remark, a focus on instrument constituencies is an important next step after acknowledging that 'policy instruments are not "given" in the same way that a spanner sits in a toolbox; they have to be nurtured, pushed forward, and hence given meaning in particular contexts'. Such nurturing and pushing is what instrument constituencies do. Mann and Simons (2015, p. 327) note that 'Through their constituencies, policy instruments gain political momentum, because they are advocated from within.' Constituencies take on 'independent social dynamics which become part of the overall process of governance change' (Voß, 2007a, p. 177). Ultimately, this helps to explain the often reported but little understood finding that 'solutions chase problems', rather than the other way around (Béland & Howlett, 2016). The concept therefore directly contributes to a new 'sociology of policy instrumentation' (Kassim & Le Galès, 2010; Lascoumes & Le Galès, 2007), which emphasizes the structuring effects of policy instruments and debunks the idea that policy instruments are passive devices 'at the disposal' of policy makers.

As a new theoretical concept, instrument constituencies should be related to and possibly integrated into existing theories of policy analysis (Cairney, 2013; Howlett et al., 2015; Voß, 2007, pp. 81–4; Voß & Simons, 2014). First of all, there are other notions of collective policy actors such as 'policy communities', 'advocacy coalitions', 'epistemic communities', and 'discourse coalitions'. What is the difference between these actors? How do they interact? Second, there is the notion that policy-making activities fall into different 'streams', such as a 'problem stream', a 'policy' or 'solutions stream', and a 'politics stream' (Kingdon, 2003; Zahariadis, 2007). How do instrument constituencies figure in this model? Third, we must understand what role instrument constituencies play in models of the 'policy process' and its various stages, such as agenda making, policy formulation, decision making, implementation and evaluation. Finally, there is a growing acknowledgement that policy making is increasingly transnational, which raises the question if instrument constituencies show transnational actor qualities.

INSTRUMENT CONSTITUENCIES, EPISTEMIC COMMUNITIES AND ADVOCACY COALITIONS

The concept of the instrument constituency is decisively different from existing concepts of collective policy actors (Voß & Simons, 2014, p. 6–7; Voß, 2007a, p. 73–4, 177). It is both less and more than a 'policy community', for example, the latter of which is commonly defined as the set of actors who share a 'common concern with one particular area of policy problems' (Kingdon, 2003, p. 117) and thus make up a 'policy subsystem'. The instrument constituency is 'less' than a policy community because a policy community is a rather undifferentiated concept that does not account for particular roles that actors may play within such communities (Béland & Howlett, 2016). At the same time, the instrument constituency is 'more' than a policy community because it can exceed the scope of a policy subsystem and become active in a trans-sectoral and transnational sphere of policy making, as discussed below.

Instrument constituencies are also different from 'advocacy coalitions'. The concept of advocacy coalitions was introduced to explain policy change over time through 'the interaction of political elites within a policy community/subsystem attempting to respond to changing socio-economic and political conditions' (Sabatier, 1988, p. 130). Advocacy coalitions are 'composed of people from various organizations who share a set of normative and causal beliefs and who often act in concert' (p. 133). While this concept helps to differentiate actor groups within policy subsystems, it essentially holds that such groups form around common policy beliefs and goals. Instrument constituencies, in contrast, form around policy solutions and its members do not necessarily share fundamental policy beliefs.

There is some resemblance between instrument constituencies and 'epistemic communities' (Haas, 1992) in that they both centre on special kinds of policy-relevant knowledge. Epistemic communities are defined as networks of professionals 'with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area' (p. 3). In contrast to instrument constituencies, epistemic communities are problem oriented rather than solutions oriented. They have a 'common policy enterprise – that is, a set of common practices associated with a set of problems to which their professional competence is directed' (p. 3).

Mukherjee and Howlett (2015) as well as Béland and Howlett (2016) support the claim that instrument constituencies must be differentiated from other key collective policy actors, because in developing and advocating policy solutions they play a unique role in the policy process. Since 'these actors are united by their adherence to the design and promotion of specific policy instruments as the solutions to general sets of policy problems', instrument constituencies should not be 'conflated with Sabatier's or Haas' notions of advocacy coalitions or epistemic communities' (Mukherjee & Howlett, 2015, p. 70).

Advancing Voß and Simons's attempts to distinguish instrument constituencies from other collective policy actors, Howlett and his colleagues suggest a tri-fold conceptualization of independent policy actors and activities, which puts instrument constituencies next to advocacy coalitions and epistemic communities as shown in Table 21.1. Whereas instrument constituencies engage in the development of policy tools and techniques, epistemic communities engage in the development of problems and advocacy coalitions engage in the development of ideologies and in matching goals and tools. This

Table 21.1   Key collective policy actors

Name	Source	Composition	Activities
Epistemic communities	Haas (1992)	Scientists and experts	Developing conceptions of problems/goals
Instrument constituencies	Voß and Simons (2014)	Scientists, consultants, administrators and technicians	Developing suites of tools and techniques
Advocacy coalitions	Sabatier (1988)	Politicians, parties and legislators	Developing ideologies, matching goals and tools

Source: Based on Béland and Howlett (2016).

juxtaposition of instrument constituencies, epistemic communities and advocacy coalitions requires a bit of reinterpretation, as the authors note, especially as concerns the role of advocacy coalitions. The latter are normally meant to comprise all actors within a policy subsystem, including those that work on problems and solutions. But for the sake of theory advancement it makes sense to distinguish advocacy coalitions from the other two policy actors in the way suggested by Howlett and colleagues. As we shall see in the next section, this tri-fold conceptualization helps to shed light on the role of these actors in different streams and stages of the policy process.

INSTRUMENT CONSTITUENCIES, STREAMS AND STAGES

Instrument constituencies and their dynamics can be reflected in a multiple streams model of the policy process (Mukherjee & Howlett, 2015; Voß, 2007a, pp. 81–4; Voß & Simons, 2014, p.6). It 'provides a good starting point for analysing the dynamics of policy instrument development in a broader policy context. The conception of a separate stream of policy development invites one to "zoom into" the policy stream and carry out more sophisticated analysis of the development of policy options and proposals as a process in its own right' (Voß, 2007a, p. 82). Kingdon (2003) famously differentiated between three independently flowing 'streams' operating during the agenda-setting stage of the policy process: (1) a problem stream; (2) a policy or solutions stream; and (3) a politics stream. The policy stream, he explained, is like a 'primeval soup', where ideas on how to make policy float around in a 'community of specialists' (p. 116) and where 'advocates of solutions look for current problems to which to attach their pet solution' (p. 123). Kingdon also highlighted the role of 'policy entrepreneurs' who 'attempt to soften up the policy communities . . . and larger publics' (p. 128). Arguably, we can catch a glimpse of instrument constituencies here, but Kingdon did not develop this point any further.

Mukherjee and Howlett (2015, p. 68) point out that Kingdon's notion of agency remains underdeveloped and argue that 'there is a need to match agents and streams, requiring the disaggregation of a subsystem and the assignment of distinct types of agents to each stream of activities'. Asking 'who is a stream?', the authors identify epistemic communities, instrument constituencies and advocacy coalitions as the principal agents of the problem, policy and politics streams, respectively. The tri-fold conception of policy actors outlined in the previous section thereby becomes married to the multiple stream

Policy Stages   **Policy Streams**
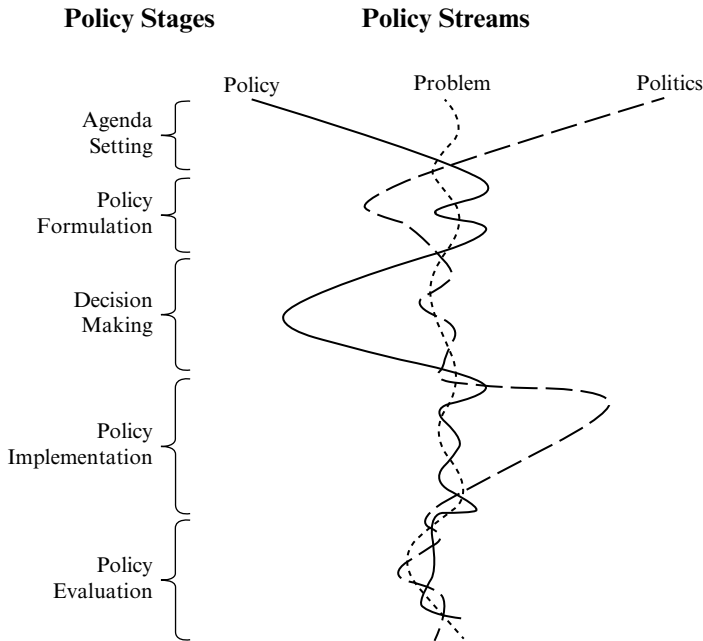
Source: Based on Mukherjee and Howlett (2015).

Figure 21.1   Streams and stages

framework. Instrument constituencies had already been associated with the policy stream by Voß (2007a, p.81–4) as well as Voß and Simons (2014, p.6).

When applied to the policy process, the tri-fold model reveals the essential role of constituencies (Voß, 2007a, p. 84). Figure 21.1 shows how Mukherjee and Howlett (2015) view the interaction of the policy, problem and politics streams in five prototypical stages of the policy process: agenda setting; policy formulation; decision making; policy implementation; and policy evaluation.[1] Figure 21.1 also shows how each of the three streams can exist independently, and hence indicates how solutions can be 'looking for problems' (Simons & Voß, 2015; Voß, 2007a, p. 178).

During the *agenda-setting* stage, solutions are combined with problems and politics (moods, constellations of power). Instrument constituencies can act as 'policy entrepreneurs' in this stage and as such help to join the three otherwise independent streams. In an effort to broaden the scope of their pet solutions, instrument constituencies engage in the discursive construction of policy problems to fit them to the solution at hand. They also mobilize political support for their solution by making promises linked to its implementation in the given context (Mann & Simons, 2015; Simons & Voß, 2015; Voß, 2007a, pp. 177–9; Voß & Simons, 2014; Voß, 2014).

During *policy formulation*, the interaction between the three streams and the associate actor groups changes. Whereas solutions and problems continue to interact – which may coincide with significant, temporal overlaps of instrument constituencies and epistemic communities – the politics stream flows somewhat independently until it joins the other two

streams again during the decision-making stage. This is not to say that policy formulation is a non-political process, only that typically during this phase, experts – such as members of instrument constituencies or epistemic communities, rather than official decision makers – are negotiating the technical details of policies. This has to do with the status of instrument choice as a quasi-technical process as well as the 'apparent emptiness in terms of substantial political goals' (Voß & Simons, 2014, p. 742) associated with policy instruments. As Lascoumes and Le Galès (2007, p. 17) note, 'For government élites, the debate on instruments may be a useful smokescreen to hide less respectable objectives, to depoliticize fundamentally political issues, to create a minimum consensus on reform by relying on the apparent neutrality of instruments presented as modern, whose actual effects are felt permanently.'

During *decision making*, where decision makers join in again, instrument constituencies pull out from the process. However, sometimes decision makers can also be members of instrument constituencies. This was the case, for example, with the members of the European Union (EU) Commission who managed the decision making of the European Emissions Trading System (EU ETS) and, at the same time, were experts and advocates of emissions trading with strong personal linkages to key constituency members (Simons, 2016a). Apart from such exceptions, instrument constituencies rejoin during the *implementation stage*, since it is here where they can play out their expertise as 'toolmakers'. In fact, a key structural promise within instrument constituencies is that constituency actors find employment by catering to the implementation and daily operation of a policy instrument. Think of emissions trading again. In order for a programme like the EU ETS to work, one needs actors to measure and monitor emissions, trade and bank certificates, advise companies on how to deal with the programme and so on. The instrument can become a niche and habitat for such actors (Mann & Simons, 2015; Simons & Voß, 2015; Voß, 2007a, pp. 177–9; Voß & Simons, 2014). Finally, during the *evaluation phase*, instrument constituencies are active as well. Paradoxically, the experts who evaluate the performance of policy instruments are often the same ones that advocate and help to implement these instruments, as discussed in the next section.

Note that instrument constituencies are active during most phases of the policy process, not only during agenda setting and policy formulation. This is an important point because it shows that instrument constituencies are not just inventors of policy solutions; they are also implementers and evaluators. In fact, they accompany policy solutions along their full 'innovation journey' from invention to adoption and evaluation, and across several different sites of experimentation, within laboratories of scientific research and 'real world' policy contexts (Jordan & Huitema, 2014b; Voß, 2007a, 2007b, 2014, 2016b; Voß & Simons, 2014). As elaborated further in the next section, this implies that instrument constituencies often cross sectorial and legislative boundaries.

A last thing to note here is that while instrument constituencies are the dominant actor in the policy stream, they are also at times concerned with redefining problems and mobilizing political support, though always as a means to advocate their solutions. One might thus argue that whereas the policy stream is their chosen 'home base', instrument constituencies also manoeuvre in the other two territories – the problem and the politics streams – interacting there with epistemic communities and advocacy coalitions. The same could be true, in reverse, for epistemic communities and advocacy coalitions. Further research is needed to understand the interaction of these three policy actors (Béland & Howlett, 2016; Mukherjee & Howlett, 2015).

TRANSNATIONAL CONSTITUENCIES

There has been a growing interest in the transnational nature of policy making over the last two decades. Authors have stressed that governance activity increasingly takes place 'below . . . as well as above' (Christiansen & Jørgensen, 2000, p. 62) or 'between and across' (Djelic & Sahlin-Andersson, 2006, p. 2) nation-states. Transnational governance also gives rise to new policy actors such as 'transfer agents and global networks' (Stone, 2004) or 'transnational communities' (Djelic & Quack, 2010). Such actors influence policy-making processes across contexts and reveal that regulatory boundaries do not necessarily coincide with national boundaries.

The process models discussed in the previous section – Kingdon's multiple stream framework, the policy cycle framework and the combined streams stages framework – were all originally designed to describe national policy-making processes. This means, however, that these models are relatively blind to the interaction between policy processes in different countries or jurisdictions as well as to the agency that drives such transnational policy dynamics. Yet, instrument constituencies are often transnational actors since they promote their instruments across issue areas and jurisdictions (Mann & Simons, 2015; Simons & Voß, 2015; Voß, 2007a; Voß & Simons, 2014). There is also a 'division of labour' between governmental actors, who choose and implement instruments in a given jurisdiction and domain, and transnational experts, who articulate and analyse policy instruments across jurisdictions and domains (Voß, 2007a; Voß & Simons, 2014).

On a more conceptual level, one can differentiate between two appearances of policy instruments as 'designs on governance' (Voß, 2007a, pp. 54–63; Voß & Simons, 2014). On the one hand, there are instruments as 'configurations in governance' or implemented policies, such as the EU ETS. These can be understood as installed 'technologies' that configure policy practices in a concrete site, or as 'institutions' (Lascoumes & Le Galès, 2007). On the other hand, there are instruments as 'models of governance' or generic policy models. An example would be 'tradable permits', a model that holds that environmental problems can efficiently be governed by setting up special markets for environmental 'goods and bads', such as air pollution, climate change or biodiversity protection (e.g. Tietenberg, 2006). These two appearances of policy instruments are closely coupled:

> Modelling and implementation mutually reinforce each other: technical models, especially those with scientifically certified functions, can do a lot to legitimate public policy and implementation processes. The latter, in turn, can do much to strengthen the model by providing cases for empirical evidence and public funding for research. As a result, modelling and implementation work may create a self-enforcing feedback loop, spurring the innovation process. (Voß & Simons, 2014, p. 738)

In the given example this means that 'tradable permits' as a model legitimated and influenced the design and implementation of the EU ETS and several other emissions trading systems around the world. Each of these systems has, in turn, been analysed as a test case for the functionality of the model (Simons, 2016a).

Instrument making, then, is often a transnational process, mediated by transnational instrumenting constituencies, who are, as Mukherjee and Howlett (2015, p. 70) write, 'united by their adherence to the design and promotion of specific policy instruments as the solutions to general sets of policy problems, usually in the abstract, which are then

applied to real-world conditions'. While there already is an established tradition of study-ing the diffusion or mobilization of policy instruments across policy-making contexts from the perspective of instrument *choice* on the side of 'adopting' governments (Berry & Berry, 2007; Dobbin et al., 2007), only recently have scholars begun to focus more closely on how policy mobilization is influenced by the supply of generic policy models (Peck & Theodore, 2010; Voß, 2007a, 2007b, 2014, 2016b; Voß & Amelung, 2016; Voß & Simons, 2014). When produced and circulated by legitimate experts, such models can gain an authoritative status and are accepted as sound universal knowledge on how to do policy making. These models then enter the 'toolbox' of policy making (e.g. Keohane et al., 1998; Salamon, 2002), which can be thought of as an authoritative knowledge reservoir open to interested policy makers around the world, working as a 'socio-cognitive infrastructure of designing governance' (Voß, 2007a, p. 176; Simons, 2016a; Voß, 2007b; Voß & Simons, 2014). Being part of a transnational toolbox, generic policy models 'crystallize not only a preferred bundle of practices and conventions, they also stitch together particular readings of policy problems with putative solutions' (Peck & Theodore, 2010, p. 171). And to the extent that policy makers accept such models as taken-for-granted options for policy making, the constituencies that produce and disseminate these models exert 'policy control at a distance' (Peck & Theodore, 2010). This points to what Voß (2007a, p. 167) calls a 'design push' pattern of innovation in governance and what Voß and Simons explicate as a 'supply push' dynamic in transnational policy making:

> Demand for policy instruments is driven not only by newly arising problems, shifting ideologies, or power constellations, but also by endogenous dynamics of instrument development, creating a supply push. While it may be risky for policymakers to link up with an instrument that presents itself as nothing more than a vaguely articulated, interesting idea, they may be obliged to work with an instrument that is widely regarded to represent the state-of-the-art in policymaking – and it would be disastrous to become associated with an instrument that is widely believed to be discredited. (Voß and Simons, 2014, p. 738)

Instrument constituencies mediate this process by establishing infrastructures that help to string together and orchestrate the transnational production and circulation of policy models in relation to their implementation in different places – at least along the full 'innovation journey' (Voß, 2007a, 2007b; Voß & Simons, 2014) of a policy instrument. Leveraging Latour's work (1987) on the interaction of science and society, Simons and Voß (2015) suggest thinking of these infrastructures as 'centres of policy calculation' with knowledge flowing in and out, being transformed or 're-calculated' inside. Viewed from the centre, transnational policy instrument making is a process of on-going policy experi-mentation. Implementations of the generic model produced in and disseminated from the centre serve as 'in vivo' experiments (Callon, 2009) and are monitored as potential sites for 'drawing lessons' on how to increase the functionality and epistemic authority of the model.

Key to this process of lesson drawing is the abstraction of 'local' policy-making prac-tice into generic models. Key to this process of lesson drawing is the abstraction of 'local' policy-making practice into generic models (cf. Simons, 2016a; Simons et al., 2014). Policy abstraction is a precarious achievement realized in material practices of continuous re-representation. This means that it is not a straightforward, let alone neutral, operation. Instrument constituencies strategically mobilize comparative evaluation studies of past

and present policy experiments as a means to extract certain generic policy designs and not others, and to demonstrate how a preferred generic policy principle already works 'in practice'. Although often obscured as a seemingly technical operation, policy abstraction is a political process, because it matters from what angle and with what interests a given implementation is looked at or how it gets compared to other implementation cases. Policy abstraction is at the heart of transnational policy making and is a key activity of transnational instrument constituencies (cf. Simons, 2016a; Simons et al., 2014). This means that it is not a straightforward, let alone neutral, operation. Instrument constituencies strategically mobilize comparative evaluation studies of past and present policy experiments as a means to extract certain generic policy designs and not others, and to demonstrate how a preferred generic policy principle already works 'in practice'. Although often obscured as a seemingly technical operation, policy abstraction is a political process, because it matters from what angle and with what interests a given implementation is looked at or how it gets compared to other implementation cases. Policy abstraction is at the heart of transnational policy making and is a key activity of transnational instrument constituencies.

Not all instrument constituencies are transnational actors. Depending on the type of instrument and its stage of development, constituencies may be limited to a given jurisdiction. For example, when emissions trading and compensation banking were in their infancy, their constituencies were small and mostly oriented towards US policy domains (Mann & Simons, 2015; Simons & Voß, 2015; Voß, 2007a). The same seems to be true for other cases, such as social insurance and pension privatization, as discussed by Béland and Howlett (2016). But even when constituencies start growing and expanding transnationally, national constituencies may remain or form as relatively autonomous subgroups, which can be studied in their own right as well as in comparison to each other (Perl & Burke, 2015; Voß, 2007a, 2016b). But it is important to keep in mind that in times of transnational governance instrument constituencies most likely have connections that reach outside any given policy domain or jurisdiction. Such relations can have a strong bearing on the force (legitimacy and authority) of the instrument in question, which can be important even if the analytical focus is on a local policy-making context.

INTERNAL CONSTITUENCY DYNAMICS

So far, our discussion has centred on instrument constituencies in relation to other policy actors, in relation to streams and stages of the policy process, and in relation to transnational policy-making dynamics. But how are such constituencies internally structured? Which actors do they consist of and what exactly binds them together? These questions are important to help us understand what role instrument constituencies play both in theory and practice. What makes different constituencies grow or decline, become stronger or weaker, more or less successful? We can define instrument constituencies by their collective interest in and agency towards articulating, developing, disseminating and implementing the instrument (mix) they form around. But further conceptualization of instrument constituencies is possible and indeed necessary to advance our understanding of the inner working of these collective actors, such as the role of structural promises, self-reflexivity and coordination, and the socio-material infrastructures supporting constituencies.

There are two types of promises working in different ways to recruit support for policy instruments (Voß, 2007a, p. 179; Voß & Simons, 2014). Whereas functional promises (often supported by modelling and simulation techniques) refer to the ability of policy instruments to achieve public goals and are relevant for legitimacy and support, structural promises are implied in particular structural features of a future world that an instrument is expected to bring about, especially with regard to the roles and positions this world offers for different actors. For example, a functional promise could be that a particular instrument provides pollution control at least costs. In the same context, a structural promise could be that this least costs instrument creates demand for new types of expertise and services or that it will shift responsibility between governmental agencies or organizational departments.

Structural promises are crucial for the temporal stability of an instrument constituency, because a constituency that is only held together by functional promises will quickly dissolve as soon as functional promises shift, for example, due to a negative evaluation of the instrument or because another instrument promises better results (e.g. Perl & Burke, 2015). Conversely, a constituency whose members are mobilized by structural promises will actively promote their instruments even at times when functional promises shift. What is more, it will actively engage in solution and problem framing as a means to keep functional promises alive and to secure political support for the retention or expansion of the instrument in question (Mann & Simons, 2015; Simons & Voß, 2015).

Structural promises align heterogeneous actors and their individual interests during constituency development (Voß, 2007a; Voß & Simons, 2014). Academics, consultants, companies, think tanks, public intellectuals, governmental agencies, international organizations and other actors can, for different reasons related to different structural promises, develop an interest in supporting a particular policy experiment. Academics may find a career path; consultants and companies a new business field; think tanks and public intellectuals a new way of advancing their positional profile; governmental agencies and organizations a new area to be regulated. In this sense, the policy instrument that different actors support becomes a 'boundary object' (Star & Griesemer, 1989) that both unites them (as their common object) and divides them (in the particular expectations they attach to it). In contrast to all the other actors that might relate to an instrument as a boundary object, such as epistemic communities or advocacy coalitions, constituency members share an attachment through structural rather than functional promises.

Attachment through structural promises does not necessarily imply that constituency members also develop a self-reflexive interest in coordinating themselves as an instrument constituency. This can happen, however, when actors reflexively pursue the management of interdependencies emerging from their joint engagement with an instrument and begin to mutually enrol each other to realize particular versions of the instrument according to the specific expectations that they attach to it (Mann & Simons, 2015; Voß, 2007a; Voß & Simons, 2014). Developing the instrument and expanding its scope – that is, the social realm within which it is regarded as a valid option of policy making – can then become articulated as an explicit collective interest and strategic goal for reflexive coordination within the constituency.

Such coordination may lead to the establishment of constituency institutions and organizations, such as specialized conferences, fairs, mailing lists, internet platforms,

boards and associations, where constituency members come together on a regular basis to exchange news and experiences, form collective positions and coordinate their public outreach (Voß, 2007a; Voß & Simons, 2014). In effect, instrument constituencies can, through coordination, become more coherent and more powerful collective actors 'who strategically market their solutions, for example, by engaging with problem discourses, recruiting important supporters, or seeking to outcompete other instruments for a dominant position in the "toolbox of policymaking"' (Voß & Simons, 2014, p. 740).

For instrument constituencies, another source of power is the socio-material infrastructures they build in the process of developing and expanding policy instruments (Simons, 2016a; Simons et al., 2014). Mobilizing again the distinction between policy instruments as models and as implemented policies, we can also make a difference between two types of infrastructures: those that help to sustain or expand an instrument as a generic policy model and those that help to sustain or expand an instrument as a policy arrangement in a concrete setting. To sustain and expand a policy instrument as a generic model, constituencies may construct infrastructures that consist of academic associations, university degrees, conferences, laboratories and networked data and texts. Instrument constituencies can produce and use networks of documents and data to exert 'policy control at a distance', by disseminating authoritative policy models throughout the world (Freeman & Maybin, 2011; Simons, 2016b; Simons & Voß, 2015). This can lead to a situation where 'the data' or 'the literature' in favour of a particular policy model becomes widely acknowledged as the 'evidence base' for that model. Supporters can then point to this evidence base, which resides in a transnational sphere, as a source of authority to support their claims, for example, concerning the necessity to implement the model in a particular context.

When policy instruments become implemented in practice they lead to the construction of concrete policy arrangements. In line with Lascoumes and Le Galès (2007), we can think of such arrangements as social institutions because they enable and constrain the agency of actors. But just as sociologists explore the socio-material dimensions of social institutions (e.g. Latour, 1991; Pinch & Swedberg, 2008), we also need to explore the socio-material dimensions of implemented policy arrangements. Examples of how this could look can be found in studies on the materiality of environmental markets (Callon, 2009; Holm & Nielsen, 2007; MacKenzie, 2009a, 2009b; Schroth, 2015) and liberalized utility sectors (Voß & Bauknecht, 2007). As these studies show, the implementation of a policy arrangement entails material tinkering of various sorts. In the case of environmental markets, environmental 'goods and bads' need to be made measurable and commensurable through a complex measurement and calculation apparatus. Trading of environmental permits requires a trading infrastructure linked to databases or stock exchanges. Any of these requirements is a potential field of activity for an instrument constituency and its 'helpers' interests'.[2] Note that the construction of such infrastructures is not only a valuable business case but can also be used as a means to inscribe certain values and interests into a socio-material setup, which enables and constraints the agency of many. Such 'politics of the material', resulting from the actors' capacity to inscribe values and interests into socio-material infrastructures, is in fact the key reason why policy scholars should attend to the socio-material dimension of policy instruments both as models and as implemented policy arrangements. It is here that linkages with the broader field of science and technology studies open up (Voß & Freeman, 2016).

EXAMPLES OF INSTRUMENT CONSTITUENCIES IN VARIOUS POLICY AREAS

The policy instrument constituency is a fairly new concept. Consequently, the number of available case studies is still limited, but fortunately it is growing. This section discusses case studies on network access regulation, emissions trading, compensation banking, citizen panels, and social insurance and pension privatization, all of which show the relevance of the instrument constituency concept put to practice, reveal several important aspects of constituency dynamics and suggest avenues for further research.

The phenomenon of instrument constituencies had originally been articulated in a study by Voß. He followed the transnational development of two market-based policy instruments: network access regulation (for the liberalization of utility sectors like telecoms, electricity, railways) and emissions trading (for regulating environmentally harmful behaviour). In reconstructing the 'innovation journey' of both instruments as a process 'between lab and field' and with a view to reconstruct how they became established as generic technical models at the heart of global regimes of policy design, Voß had come to observe how 'innovation networks' of increasingly specialized actors, institutions and practices had taken shape in both cases. By relating the transnational life of policy instruments with dynamics of policy change in particular governance domains, he contrasted the overall innovation pattern of both cases as 'demand pull' and 'design push'. For the case of network access regulation he found that the development of a solution to the problem of introducing competition in network-bound utilities was dragged behind by surging political demand for an instrument to make liberalization work. The design did so take shape as a 'pampered instrument' and it quickly unravelled as market-liberal politics lost force during the 2000s (Voß, 2007a; Voß & Bauknecht, 2007, 2009). For the case of emissions trading it was the promotion of a (laboratory-based) instrument design by an increasingly well-organized constituency that actively created demand by shifting problem perceptions and political coalitions (Voß, 2007a, 2007b, 2010).

Voß, Simons and Mann study the emergence and spread of emissions trading and compensation banking as constituency dynamics (Mann & Simons, 2015; Simons, 2016a; Simons & Voß, 2015; Voß, 2007a; Voß & Simons, 2014). In both cases, instrument constituencies first emerged locally in the USA and in particular policy sectors – air pollution and wetland protection, respectively – and then spread to other sectors and jurisdictions to become transnational actors chasing ever-new applications (and problems) for 'their instruments'. These constituencies conducted economic research, lobbying, policy formulation, policy evaluation and policy abstraction. Across sectors and jurisdictions, these constituencies orchestrated several policy experiments and strategically abstracted generic policy designs from them. So far, every emissions trading market and compensation banking arrangement has been referred to as a policy experiment, seemingly to indicate that effective performance can be expected but not guaranteed.

However, as the analysis reveals, the experimental metaphor has also been strategically employed in attempts to immunize these instruments from critique. This has mainly been done by pointing to the mantra of 'learning by doing', thereby legitimizing the continuation and emulation of environmental markets even when there was little actual evidence of their effectiveness (Simons, 2016a; Voß & Simons, 2014). Documents such as academic publications, policy reports, grey literature and others played a crucial role in enabling and

supporting these activities. Documents – especially in the form of citation networks – can provide a crucial socio-material infrastructure for policy abstraction and the construction of the authority of a policy blueprint and its constituency (Simons, 2016a, 2016b). More research is needed on strategic policy experimentation and supporting documentary practices.[3]

Voß, Simons and Mann also find moments of self-reflexivity in their cases, when the constituencies started to coordinate and organize themselves as collective actors, for example, through the International Emissions Trading Association or hubs such as the Ecosystem Marketplace. However, a particularity of the emissions trading and compensation banking cases is the creation of artificial markets for environmental 'goods and bads' together with complex measurement infrastructures to define and monitor emissions and compensation measures. This has given rise to whole new service industries of traders, monitors, certifiers, consultants and others who cater to and 'live off' these market infrastructures and became influential constituency members with a strong interest to coordinate. This raises the question, however, if strong and self-reflexive constituency dynamics are limited to policy instruments that imply major infrastructure creation upon implementation.

Cases of instrument constituencies in other areas, for example participatory governance, show that such dynamics can occur in other types of situations. Amelung and Voß (Amelung, 2012; Voß, 2016a, 2016c; Voß & Amelung, 2016) study the role of instrument constituencies in connection to the emergence and spread of citizen deliberation instruments, that is, methods to integrate citizens in established systems of representative democracy. Their starting point is the observation that three such instruments 'share almost an identical procedural design': planning cells, citizen juries and consensus conferences. Interestingly, these instruments were initially developed and nurtured 'in different professionalized communities . . . and policy domains'. But over time, these developments 'shifted towards an overlapping innovation path and turned out to be the foundation for the establishment of a new de facto standard of citizen panels' (Amelung, 2012, p. 13). This step-wise standardization process was driven by distributed activities of 'public participation experts' who were initially 'fragmented into (partly overlapping) communities that specialize on one particular design or follow one particular "school" (such as planning cell, citizen jury or consensus conferences) and related hybrids' (p. 24). Such partly overlapping constituencies 'design, provide expertise, regulate, trade, use, facilitate, standardize . . . finance and invest, consult, inform and educate, participate, lobby, criticize or support' (p. 15) citizen deliberation instruments.

Self-reflexivity was important in these communities as well. Strikingly, the constituency that developed the citizen jury instrument even had the label 'citizen jury' trademarked in 1993, 'allowing this method to have a monopoly on the US market' (p. 20). This trademark was later ignored when an emerging constituency in the UK combined the design of the citizen jury with that of the German planning cell and started to disseminate this new hybrid from a newly founded Institute of Public Policy Research. Describing interactions like these, Amelung claims that '[r]ivalling designs for similar purposes and similar application contexts compete and might trigger cooperation as well as constructive but also destructive competition' (p. 25). A broader account of the innovation dynamics in this case shows that the transnational spread of participation methods went hand in hand with increasing 'technoscientization' of their design, by linkages with theories of deliberative

democracy and laboratory-based research practices (Voß, 2016a, 2016c; Voß & Amelung, 2016). The case thus puts the interaction of instrument constituencies on the research agenda. More empirical research is needed to understand when and how instrument constituencies unite or fragment, and how they cooperate or compete. The case also widens the focus to include constituencies of instruments that we might call 'legitimatory instruments' – that is, citizen panels that are used not to implement policy decisions but to justify them by taking into account diverse values and interests and produce consensus on public goals as well as the matching of goals and tools.

Building on the distinction between policy instruments as models and implemented policies, introduced above, Voß (2014) traces the emergence and spread of transition management as the coproduction of knowledge in policy studies with a new reality of public policy, a process he calls 'realizing governance'. Through a constituency, first based in the Netherlands and then quickly transnationalizing, transition management became 'realized' in two ways. First, it was established as a generic model, a form of collective knowledge, which albeit not free of controversy has developed epistemic force due to it being spread in academic discussion, teaching, training and consulting, as well as documentation in an emergent expert literature. Second, it became realized in practice as 'a specific configuration of doings, . . . a new material reality of governance' (p. 333). Voß's key finding is that in this process neither the knowledge (the model) nor the practice came first. Rather, knowledge and practice 'gradually developed in conjunction with each other. They propelled each other into being. A new science of governance and a new ordering of practice were coproduced' (p. 333). From this he concludes that science and policy should not be seen as two separate worlds interacting with each other. 'Rather than science–policy *inter*action there is *co*action', Voß claims: 'epistemic and political practices imply and build on each other as both are part of a web of entanglements that has dynamically built up in a joint history' (p. 333, emphases in the original). The role of instrument constituencies in organizing such entanglements and spanning the worlds of science and politics remains to be studied further.

Béland and Howlett (2016) analyse the role of instrument constituencies in developing and spreading social insurance and pension privatization. Social insurance originated in Germany in the second half of the nineteenth century as a quasi-policy experiment, which was soon monitored and reflected in a growing international literature on social insurance and led to the 'emergence of a transnational instrument constituency devoted to the promotion of social insurance as a policy instrument' (p. 399). Pension privatization had already been debated within policy and economic circles before it was first implemented in Chile in the 1980s. The 'Chilean model' was then mobilized by a growing transnational constituency as a test case to push for further applications in other parts of the world. Both cases show that 'the deliberations and activities of such constituencies do not require prior problem definition in order to begin their work. Rather, deliberations on policy tools, their composition and requirements, can and do proceed in the absence of any specific problem and often are only linked up to specific problems later' (p. 399). Béland and Howlett call this phenomenon 'problem chasing'.

Asking how and when instrument constituencies gain or lose influence, the authors point to the 'significance of constituency leadership in defining its activities and actions' and note that 'the membership of instrument constituencies can change quite rapidly over time, especially in the case of large international organizations that are "open systems,"

susceptible to the influence of a great variety of individual actors' (p. 402). The authors further observe that '[M]any international organizations now belong to different and sometimes competing instrument constituencies' and suggest that 'the phenomenon of duelling instrument constituencies may be quite common' (p. 402). This is certainly an interesting point, and it requires further research. Finally, Béland and Howlett also focus on the interaction of instrument constituencies with other collective policy actors. The social insurance constituency in the USA, in particular, shows 'how an instrument constituency emerged in a particular country, in connection to broader international trends but due to the intersecting interests and views of instrument coalitions, epistemic communities, and advocacy coalitions'. This interaction of different policy actors also requires further attention.

CONCLUSION

The concept of instrument constituencies closes a gap in the policy studies literature. It sheds light on the 'supply side' of policy making and adds to our understanding of policy formulation and other stages of the policy process. Through their constituencies, policy instruments can develop a life of their own, partly determining preferences and actively enrolling allies (Jordan & Turnpenny, 2015; Mann & Simons, 2015; Simons & Voß, 2015; Voß, 2007a; Voß & Simons, 2014). Empirical research confirms that instrument constituencies 'market their solutions to problems they help to define and through political support they actively build' (Simons & Voß, 2015, p. 55). The concept further helps to explain the often observed but not well-understood phenomenon that solutions can chase problems, a phenomenon which 'is not at all extraordinary and exceptional but in fact commonly may be the norm' (Béland & Howlett, 2016, p. 405). Instrument constituencies are a long-neglected collective actor but an important driving force in national and transnational policy-making processes.

This chapter has elaborated on the conceptual underpinnings of instrument constituencies and explored the relations between instrument constituencies and other key concepts of policy analysis such as epistemic communities, advocacy coalitions, multiple streams, the policy process and transnational governance. Instrument constituencies have a firm place in policy studies, not least because, in combination with other established concepts, they complete our understanding of the policy process as a whole. More theoretical and empirical work is needed, however, to further sharpen this analytical lens. Future research should focus, among other things, on the inner dynamics of instrument constituencies as well as the interaction between instrument constituencies and other policy actors.

A focus on instrument constituencies brings to light the politics involved in the development and spread of policy instruments. Although the 'supply side' of policy making is often obscured as a quasi-technical activity – sometimes intentionally so as to hide certain interests – it deserves our critical attention. Ultimately, it is just another arena where political issues of power and justice become decided. One practical implication of the study of instrument constituencies can be to open up policy design and formulation processes and to debate the 'challenging futures' (e.g. Mann et al., 2014; Voß, 2016a) of policy designs with a broad range of actors, including but not limited to constituency actors.

NOTES

1. Mukherjee and Howlett's model also includes a programme and a process stream and is based on the five-stream framework developed in Howlett et al. (2015). However, since these two additional streams are not important for our purposes here, we omitted them in the figure for simplicity's sake.
2. Prittwitz (1990) introduced the term 'helpers' interests' to describe one of three distinct types of interests that actor groups have in environmental politics (the other two being polluters' interests and the interests of those affected by pollution). Helpers' interests, he suggested, are targeted at a particular way of solving a problem rather than at the problem itself. Note the resemblance to the notion of structural promises discussed earlier.
3. For example, Schroth (2015) analyses the development of the Clean Development Mechanism as an experimental process undertaken and shaped by a transnational 'experimental constituency'.

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22. Think tanks, politics and the policy-making process: catalysts for ideas and action
James G. McGann

INTRODUCTION

The growth of public policy research organizations, or think tanks, has been nothing less than explosive over the last few decades. These organizations have increased and expanded dramatically, with more than 6500 think tanks currently operating all around the world. The scope and impact of their work has expanded in kind. This past decade, however, has shown the first marked decrease in the growth rate of the establishment of new think tanks. Despite this, think tanks continue to increase their role and influence in countries around the world, serving as a bridge between the policy and academic communities, as well as citizens and their respective governments.

The breadth and scope of the sector has expanded considerably since the 1990s, as think tanks have responded to policy-makers' and the general public's need for information that is useful, reliable and accessible. Although this need has been an inherent dynamic of the policy-making process, the forces of globalization have markedly accelerated the growth of independent think tanks due to their unique ability to strengthen the research-policy bridge, and thus increase the quality and effectiveness of the policy-making process. As a result, think tanks can now be found in 182 countries around the world. By developing and strengthening ties with other non-governmental and research organizations via state, regional and international networks, think tanks have solidified their position as integral contributors to the policy-making process.

This chapter examines the role of these institutions in the policy-making process in the United States as well as their role in regional and global networks to illustrate the value and utility of think tanks to policy-makers and the public at the national, regional and global levels. Furthermore, it analyses the increased role, number and position of think tanks, along with the fact that think tanks have received less attention from scholars relative to environment, development, education and social service-oriented non-governmental organizations (NGOs). In addition, it explores the major challenges facing this group of policy-oriented NGOs.

The relationship between US think tanks and government developed due to certain unique social, historical and institutional realities with respect to the following six subthemes: sensitizing policy planning to a future orientation; contributing to the generation of creative policy agendas; collaborating among separate groups of researchers for a common purpose; advancing policy-relevant intellectual syntheses; aiding in the dissemination of relevant policy research within government; and, finally, transforming knowledge gained from research into useful overall policy inputs. Think tanks of various sorts have performed many different functions, including:

- carrying out basic research on policy problems
- providing advice on immediate policy concerns
- evaluating government programs
- interpreting policies for electronic and print media, thus facilitating public understanding of and support for policy initiatives
- facilitating the construction of 'issue networks'
- supplying key personnel to government
- the exchange of ideas and proposals, especially in a Track 2 context.

While the emergence of think tanks in the United States has been at times problematic due to the advocacy and partisan nature that some think tanks have adopted in the last 20 years, US think tanks nevertheless have had more of a positive than negative influence on the policy process. While US historical traditions and experiences vary significantly from those in other parts of the world, there are still lessons here that can be applied to countries with vastly different political and economic systems. This is because the fundamental nature of policy advice and policy-making does not greatly vary across countries and cultures. This is not to underestimate the diversity of the global policy landscape, merely to suggest that global politics, public policy and think tanks share many of the same challenges regardless of location – for example, a lack of money and a lack of access to policy-makers. In addition, the difficult problem of bridging the gap between the world of ideas and the world of politics and power applies across all countries. Plato captured this perfectly when he said there is 'no good government until philosophers are kings and the kings philosophers.'

The origins of think tank culture in the United States is closely tied to America's Progressive-era traditions of corporate philanthropy, its sharp distinction between the legislative and executive branches of government that allows for wide think tank entry into the policy process, an inclination to trust the private sector to collaborate with and aid government, and the perception that think tanks can often do what government bureaucracies cannot.

Specifically, think tanks are:

- More effectively future-oriented than government research functionaries, who work in an environment in which efforts at creative disruption are rarely rewarded.
- More likely to generate reconfigured policy agendas, while bureaucracies thrive on the security-maximizing environment of standard operating procedures.
- Better able to facilitate collaboration among separate groups of researchers for a common purpose because they have no permanent vested interest in any one domain.

Related to this, think tanks aid the intellectual synthesis that comes from breaking down bureaucratic barriers. Hence think tanks also are:

- Better able to disseminate relevant policy research within government than government agencies themselves, for no jealousies are attached to proprietary rights.
- Better able to 'telescope' the policy function (that is, move from data collection to knowledge to conceiving means of implementation) than government bureaucracies, which may be internally segmented along such lines and so unable to move from function to function with as much ease.

The key to the relative effectiveness of the US think tank ethos in the policy domain is cultural as well as functional. The recruitment process into and out of government in the United States is wider than it is in most other democracies. In other countries, government officials and the civil service tend to be drawn from elite schools, the senior ranks of political parties and other privileged groups in society. The bureaucracy has a tendency to be more stratified with little or no recruitment or circulation of elites from the non-governmental or corporate sectors. In the United States, however, think tanks play a crucial role in the process of elite training and recruitment, with many think tanks acting as 'holding tanks' for experts and politicians 'in waiting.' Think tanks serve as 'revolving doors' where a fair number of government officials circulate in, out and between think tanks in Washington. Other think tanks are instrumental in cycling former politicians, journalists and cabinet officials into university life. Senior foundation personnel also find themselves coming and going from government or the think tank sector. Prominent journals and their senior staffs are part of this process. In short, there is a broad and informal 'interlocking directorate' between government, elite journalism, academia, foundations and think tanks in every high-profile public policy domain in the United States. This directorate ensures that ideas, experience and personnel are in beneficial contact with each other, continually renewing and challenging aging policy assumptions.

WHAT IS A THINK TANK?

Think tanks are public policy research analysis and engagement organizations that generate policy-oriented research, analysis and advice on domestic and international issues, thereby enabling policy-makers and the public to make informed decisions about policy. Think tanks may be affiliated or independent institutions that are structured as permanent bodies, rather than ad hoc commissions. These institutions often act as a bridge between the academic and policy-making communities and between the state and civil society. They serve the public interest as independent voices that translate applied and basic research into a language that is understandable, reliable and accessible for policy-makers and the public (McGann, 2007, 2016).

Think tanks perform many roles in their host societies – there is, in fact, wide variation among think tanks in the work they do and the extent to which they do it. Over the last 100 years, several distinct organizational forms of think tanks have emerged that differentiate themselves in terms of their operating styles, patterns of recruitment and aspirations to academic standards of objectivity and completeness in research. As organizational boundaries dissolve and hybrid forms of organization abound, it is essential to provide a typology that takes into consideration comparative differences in political systems and civil societies. It should be noted that alternate typologies of think tanks have been offered by other analysts. Yet even with this variation, in the global context most think tanks tend to fall into broad categories. Table 22.1 illustrates a number of categories for think tanks, and Table 22.2 provides examples for each category using well-known think tanks in the world (Dickson, 1971; McGann, 1992; Weaver, 1989).

If we want to fully understand the role of think tanks in the policy-making process it is

Table 22.1   Categories of think tank affiliations

Category	Definition
Autonomous and independent	Significant independence from any one interest group or donor and autonomous in its operation and funding from government.
Quasi independent	Autonomous from government but controlled by an interest group, donor or contracting agency that provides a majority of the funding and has significant influence over operations of the think tank.
Government affiliated	A part of the formal structure of government.
Quasi governmental	Funded exclusively by government grants and contracts but not a part of the formal structure of government.
University affiliated	A policy research center at a university.
Political party affiliated	Formally affiliated with a political party.
Corporate (for-profit)	A for-profit public policy research organization, affiliated with a corporation or merely operating on a for-profit basis.

Table 22.2   Sample classification of think tanks worldwide

Organization	Date established	Organizational type
Konrad-Adenauer-Stiftung (Germany)	1955	Political party
Jaures Foundation (France)	1992	
Progressive Policy Institute (USA)	1989	
China Development Institute (PRC)	1989	Government
Institute for Political and International Studies (Iran)	1983	
Congressional Research Service (USA)	1914	
Institute for Strategic and International Studies (Malaysia)	1983	Quasi governmental
Korea Development Institute (Korea)	1971	
Woodrow Wilson International Center For Scholars (USA)	1968	
Pakistan Institute of International Affairs (Pakistan)	1948	Autonomous and independent
Institute for Security Studies (South Africa)	1991	
Institute for International Economics (USA)	1981	
European Trade Union Institute (Belgium)	1978	Quasi independent
NLI Research Institute (Japan)	1988	
Center for Defense Information (USA)	1971	
Foreign Policy Institute (Turkey)	1974	University affiliated
Institute For International Relations (Brazil)	1979	
Hoover Institution on War, Revolution and Peace, Stanford University (USA)	1919	

essential to understand the marketplace of ideas and policy advice – the unique political culture, the legal environment, and a philanthropic culture that creates an intellectual climate and policy environment that places a premium on critical thinking and intellectual freedom.

The Marketplace of Ideas and Policy Advice

For think tanks to fulfill their mission of improving public policy, they must operate in two distinct but overlapping markets: a market for funding and a market for policy advice. Where these markets do not exist but are desired, they can be created. In the absence of a strong corporate philanthropic tradition, a government can privatize some of its own internal research functions, spinning off some of its own personnel to augment the private, independent think tanks that already exist. Think tanks can also be created through higher education policy, where funding for fellowships can be tied to 'applied' settings and vocations. While university faculty members are often skeptical of policy research, the right incentives can change their minds.

The think tank marketplace is becoming increasingly globalized. Major funders of policy research are increasingly operating across national boundaries, while think tanks are carrying out work transnationally, and in joint ventures with think tanks abroad. Thus, it is not necessary, for example, that Canadian think tanks be supported only by Canadian donors and the Canadian government. If the expertise exists, or can be coaxed into existence by government 'pump-priming,' funding and intellectual partnerships can come from outside the country.

Political Culture

As to political culture, governments can help create an informal 'interlocking directorate' that binds together government, academia, foundations, elite journalism and think tanks, or what are more commonly described as 'policy elites'. Getting academics into the policy world can be aided by government fellowships for temporarily exchanging workers. Similar exchanges can be fostered between academics and journalists. The point is to arrange incentives and design programs that are conducive to the selective mixing of professional categories. This encourages professionals to appreciate and tap into potential intellectual and skill synergies. Therefore, new think tanks and fellowship programs should be located where such synergies can most easily take place, for example, large cities and provincial centers.

The term 'think tank' originally conveyed a safe, secure, isolated place away from the hustle and bustle of the outside world, a place where thoughtful consideration of policy options could take place. During World War II, a think tank was literally a secure environment for military planning. Think tanks were also traditionally associated with the concept of the 'ivory tower' because of the scholarly research they conducted, the fact that many were located on college campuses, and the fact that think tank scholars tended to have appointments or close affiliations with colleges and universities. Today, this is the opposite of what a think tank should strive for, sociologically speaking, as the safety and security of the 'ivory tower' created a gulf between the world of ideas and policy.

Legal Environment

As to the legal environment, if a government wishes to reduce its role as the major source of funding to a more 'democratized' and privatized approach, as in the United States, then it must make it both legally possible and economically rational for a large non-profit

sector to develop. Since rates of taxation vary from country to country, there are many possibilities of adjusting the code. In many countries this may simply mean the legal status and regulations that make it possible for think tanks to operate.

Intellectual Climate

Finally, as to the intellectual environment – the least malleable of the four areas – a start can be made to deepen the spirit of debate, argument, criticism, and emotional and moral engagement in the public realm. This public engagement is the *sine qua non* of an intellectually serious think tank sector. Governments have several options to achieve this. Some have been noted above, including tax law changes, international funding and audience, and fellowship programs. One way that other countries might understand how large and public policy-oriented US think tanks are is for embassies in Washington to host an array of their own nationals from government, academia and the media for an extended period. Over time, governments and civil society would build up a cadre of individuals in different walks of life with an intimate sense of how an interlocking directorate works. This cadre would have enhanced skills in proposal generation and developed contacts with major international foundations. Yet another option is to hire one or several American think tanks to instruct new enterprises how to function with maximal impact. Over time, this could have at least an indirect impact on the nature of the intellectual environment in the country, for organizational models that are financially and politically successful are soon emulated. In many other countries this means and understanding of an a respect for the scientific principle and social science research methods.

TYPOLOGICAL/DEFINITIONAL BACKGROUND

In the early part of last century, the challenges of managing an advanced industrial economy and increased commitments abroad were behind the effort to tie science and reason to government. This was also the time – 1911 to be specific – in which Frederick Taylor published the enormously influential book, *Principles of Scientific Management*, which affected not only business but also government planning. Soon after, several leading institutions emerged, including the Brookings Institution, Carnegie Endowment for International Peace, Council on Foreign Relations and Chatham House.

The term 'think tank' itself was introduced in the United States during World War II to characterize the secure environment in which military and civilian experts could develop invasion plans and other military strategies. The period following World War II increased demand for defense experts and technocrats to help manage the defense establishment and new security arrangements around the world (RAND Corporation). After the war, the term was applied to contract researchers, such as the RAND Corporation, that did a mixture of deep thinking and program evaluation for the military. The use of the term expanded in the 1960s to describe other groups of experts who formulated various policy recommendations, including some research institutes concerned with the study of international relations and strategic questions. The social turmoil of the 1960s and its political pressures provided the impetus for the creation of the Urban Institute, the Club of Rome, D66 Policy Research Bureau, and a host of other organizations that were the architects

of social and environmental programs during this period. By the 1970s, the term 'think tank' was applied to institutions focusing not only on foreign policy and defense strategy but also on current political, economic and social issues.

More recently, crises of the welfare state, a collapse of the Keynesian consensus on macro-economic management and the rise of a worldwide conservative movement have contributed to the expansion of a host of classical liberal and advocacy-oriented think tanks organized to advance a particular philosophy or issue. The Center for American Progress was the response to the rise of this new brand of think tanks on the right.

As a result of this evolution, think tanks developed different methodologies to address different problems. Some subjects lent themselves to empirical research better than others. If, for example, a public policy institute concerns itself with questions concerning energy, pollution and the environment, it is at least possible to get meaningful quantitative data against which to answer such questions – not that non-quantifiable factors are irrelevant. On the other hand, if a research institute concerns itself with an issue such as motivations for proliferation of weapons of mass destruction, different rules of evidence must obtain. This corresponds to the famous distinction made by Karl Popper between 'clouds and clocks,' and it distinguishes a major fault line in the think tank universe.

What exactly are think tanks, and how are they different from other organizations? Defining think tanks is not as easy as it may seem. At the broadest level, think tanks are institutions that provide public policy research, analysis and advice. But that definition casts the net very broadly. Many interest groups, university research centers and other civil society organizations carry out policy research and advice as one of their activities, even if it is not their central activity. On the other hand, many government agencies also do policy research and proffer advice as a major activity. The US government has many such offices, not to speak of the independent agencies of the executive branch (Interstate Commerce Commission, Food and Drug Administration, Federal Aviation Administration, Environmental Protection Agency (EPA) and so on).

A growing number of scholars, donors and practitioners in the United States and abroad now consider independent public policy research organizations to be think tanks. These institutions have grown considerably in numbers and influence (Abelson, 2002, 2006; McGann, 1992, 2007; McGann & Johnson, 2005; McGann & Weaver, 2000; Rich, 2004; Smith, 1991; Stone et al., 1998; Weaver, 1989). Regional and global intergovernmental organizations (IGOs) such as the United Nations, the World Bank, the Asian Development Bank and the North Atlantic Treaty Organization (NATO) have recently come to recognize the significant role think tanks play in the policy-making process. These IGOs have organized think tank networks to help develop and assess policies and programs and serve as a link to civil society groups at the national, regional and global levels.

Think tanks offer original research and analysis as well as generate new information; provide policy advice; evaluate public policies and programs; identify, train and develop talent; provide a home for public figures who are out of office or planning to assume key positions in future administrations; convene experts in and outside government to float policy proposals and build consensus; and educate and engage policy-makers, the media and the public.[1]

While the organizational structures, modes of operation, audience or market and means of support may vary from think tank to think tank and from country to country, most share a common goal of producing high quality research and analysis that is married with some

form of public engagement. And all think tanks face the same challenge: how to achieve and sustain their independence so they can speak 'truth to power' or simply bring knowledge, evidence and expertise to bear on the policy-making process. Unfortunately, not all think tanks have the financial, intellectual and legal independence that enables them to inform public decision making. A recent series of articles in The New York Times has raised questions about the independence and integrity of think tanks due to perceived conflicts of interest. While these articles have generated a productive discussion, they have also raised questions about the political motivations and unrevealed conflict of interest of one of the authors that raised questions about the accuracy and integrity of their reporting. This problem is most acute in developing and transitional countries where means of support for think tanks, as well as for civil society at large, are underdeveloped, and the legal space in which these organizations operate is poorly defined. It is these characteristics that distinguish think tanks in the northern and western hemispheres from their counterparts in developing and transitional countries.

Despite the challenges, the number and overall impact of think tanks has been growing and spreading, especially in developing and transitional countries in sub-Saharan Africa, Eastern and Central Europe, and East, South and Southeast Asia. In these regions, the majority of the institutions were established in the last 20 to 25 years. Similar centers have also appeared throughout Latin America and the Caribbean, beginning their operations as early as the 1960s and 1970s. A survey of think tanks conducted in 1999 found that two-thirds of all public policy research and analysis organizations in the world were established after 1970, and half since 1980. The findings of the *2015 Global Go To Think Tank Index Report* indicates that the rate of establishment of think tanks has declined over the last 12 years in the United States and Europe (McGann, 2016, p. 8). More research and analysis is needed to understand the reasons for this trend, but we suspect that it may be the result of a combination of complex factors like shifts in funding, underdeveloped institutional capacity, and unfavorable government regulations that attempt to limit the number and influence of think tanks. While think tanks are one of many civil society actors in a country, they often serve as catalysts for political and economic reform. Analogous to a 'canary in a coal mine,' an indigenous think tank sector can also function as a key indicator for the state of civil society in a country. If analysts and critics associated with think tanks are allowed to operate freely, so too can the rest of civil society.

In order to narrow the scope of inquiry, academic writing about think tanks has evolved to apply the term only to policy research organizations that are independent of government and universities, and that operate on a not-for-profit basis. This definition, however, is too narrow on two counts.

First, organizations that are mostly dependent upon government contracts for revenue – such as the RAND Corporation and many others – cannot be considered fully autonomous. Yet they are clearly think tanks. Besides, while such a high level of government support does tend to shape the agenda of a think tank, it does not necessarily distort its research function. Funding's impact on research depends on the culture and working relationships that have developed over time, and also on the nature of the subjects being investigated by the think tank.

Second, in some continental European countries, notably Germany and the Netherlands, think tanks frequently have close financial and personnel ties to political parties. Yet, despite their lack of full independence, they are certainly think tanks and, as with the RAND Corporation, their research function is not limited intellectually even though their research

agendas may be constrained. In other parts of the world, sponsorship by a government ministry is a legal necessity for a think tank to exist. Excluding organizations with such organizational links to government would convey the misleading impression that those countries host no think tanks. Moreover, in countries where resources for policy research are extremely scarce, for-profit linkages to university or contracting relationships with the private sector may be the only way to cover a research institute's core personnel and facilities costs.

A middle course in defining think tanks therefore makes the most sense. Think tanks are policy research organizations that have significant autonomy from government and from the corporate world. But autonomy is a relative rather than an absolute term. And while some think tanks are for-profit, their main interest is not profit but influence, defined according to the agenda of the particular institution.

Think tanks are also defined by their specific activities, of which six are particularly salient:

1. The first role performed by many think tanks, especially those with staffs composed primarily of PhDs in the social sciences, is to carry out basic research on policy problems and policy solutions in a fashion similar to that done by university-based researchers. Research on policy problems may address questions like: What are the challenges that two countries face in reunifying (like East and West Germany) or splitting up (like the Czech Republic and Slovakia)? How is the deregulation of financial markets or the privatization of transport likely to affect the range and price of services that are offered? How significant is the threat of nuclear proliferation among particular developing countries?

2. A second role performed at many think tanks is providing advice on immediate policy concerns. Think tanks are often asked to analyse and provide advice on a range of policy issues or problems that are before the legislature or the public. This can occur at several stages in the policy-making process and through a number of channels. Think tanks may organize briefings and hold seminars for policy-makers and the media. They may publish issue briefs on legislation pending in the legislature, and their staff may testify in legislative hearings. Advice may also take the form of opinion pieces in newspapers. What distinguishes this second role from the first one is that here think tanks draw on an existing stock of expertise rather than performing original research. The resulting policy advice is generally provided in a brief, accessible and less formal design, usually in response to time-sensitive demands.

3. A third role frequently performed by think tanks is the evaluation of government programs. This research answers questions like: Which of two potential weapons systems being considered by the military is the most efficient expenditure of defense procurement dollars? Are local governments delivering services such as education and garbage collection in a relatively efficient manner compared to other municipalities of similar size? While these evaluations can take many forms, the most important is probably formal evaluation studies commissioned by government agencies themselves.

4. A fourth role frequently performed by think tank staff is the interpretation of policies and current events for the electronic and print media. This is not the same as disseminating think tank-produced research, but can be and generally is based on on-going research. Unlike opinion pieces, a think tank's interpretive role is usually performed

on the pages of newspapers and in sound bites for radio or television news broadcasts. Giving a perspective – or a spin – to news events helps frame the way that think tanks are viewed by both elites and the broader public.

5. A fifth role that think tanks perform is that of a facilitator of 'issue networks' and the exchange of ideas. Rather than written products, the key elements here are verbal exchanges and personal relationships. Since most politicians are not specialists, they may have neither the inclination nor the desire to absorb detailed technical studies of an issue, but by interaction with experts they may come to share that group's general perspective on a policy problem. Think tanks often accomplish this by engaging policy-makers and the public through briefings, seminars and conferences – some of them televised by C-SPAN and through other remote media. Think tanks play a critical role as Track 2 actors in diplomacy and back channel domestic policy facilitators.

6. A sixth and final role for think tanks is to supply personnel to government and serve as a place for politicians and policy-makers who are out of power to recharge their batteries – or as a simple sinecure. Because think tanks serve as repositories for policy-oriented expertise, they play a very important human resource function for new governments when they are trying to fill policy-making positions from outside the bureaucracy. Think tanks also help train the next generation of policy-makers through their intern and fellowship programs.

THE STRATEGY AND STRUCTURE OF THINK TANKS AND HOW THEY IMPACT POLICY ADVICE

While think tanks may perform a number of roles in their host societies, not all think tanks do the same things to the same extent. Over the last several decades, several distinctive organizational forms of think tanks have come into being that differ substantially in terms of their operating styles, patterns of recruitment and aspirations to academic standards of objectivity in research. Most think tanks can be understood as variations on one or more of five basic types, as illustrated in Table 22.3: academic, contract research, advocacy tanks, party think tanks and for-profit think tanks.

The first two types, academic and contract research think tanks, have many similarities: both tend to recruit staff with strong academic credentials (e.g. PhDs from prestigious universities), and both tend to emphasize the use of rigorous social science methods and strive to have their research perceived as objective and credible by a broad audience. Where they differ is in their funding sources, agenda-setting and outputs.

Academic think tanks are typically funded by a mixture of foundations, corporations and individuals. Their agenda is usually set internally and at least in part through a bottom-up process in which the researchers themselves play an important role. But funders are increasingly active in agenda-setting at academic think tanks as well. Reflecting the academic training and orientation of their staffs, the research outputs of academic think tanks most often take the form of academic monographs and journal articles. Contract researchers, on the other hand, are usually funded in large part by contracts with government agencies. The funding agencies typically play a large role in setting the agenda, and outputs generally take the form of reports to those agencies rather than publicly circulated books and articles.

Table 22.3 A typology of think tanks

Think tank types	Major characteristics and products				Subtypes	Facilitating conditions	Examples
	Staffing	Financing	Agenda-setting	Products and product style			
Academic/ university without students	Focus on staff with strong academic credentials and muted ideology	Primarily foundations, corporations, individuals	Agenda set primarily by researchers and foundations	Academic monographs and journal articles in objective and non-partisan style	Elite policy club; specialized academic think tank	Culture and philanthropic tradition that supports idea of non-partisan experts	Brookings Institution; Institute for International Economics (USA)
Contract research	Focus on staff with strong academic credentials, muted ideology and objective, non-partisan research	Primarily government agencies	Agenda set primarily by contracting agency	Reports for government agencies and other clients in objective and non-partisan style	Specialized contract researcher	Government support available for policy research	Rand Corporation and Urban Institute (USA)
Advocacy tank	Focus on staff with political, philosophical or ideological credentials	Primarily foundations, corporations, individuals	Agenda set by organization leaders	Brief papers typically focused on current topical issues	Specialized advocacy tank; vanity and legacy think tanks	Foundation, business and group support available	Centre for Policy Studies (UK)
Party think tank	Focus on party members and party loyalty	Primarily party and government subsidies	Agenda closely tied to party platform	Varies	None	Government funding available for political party research	Konrad-Adenauer-Stiftung (Germany)
For-profit think tank	Focus on staff with strong accounting, business and sector-specific skills and experience	Corporations and other business clients	Agenda set by client	Reports of clients	Special interest and profit motive	Corporations	Deloitte (USA)

Advocacy tanks and party think tanks also resemble one another. Advocacy tanks, while maintaining formal independence, are linked to particular ideological groupings or interests. They tend to view their role in the policy-making process as winning the war of ideas rather than as a disinterested search for the best policies. As compared with the first two groups, staff at advocacy tanks are more non-academic and are less interested in basic research. They frequently draw their resources disproportionately from sources linked to the organization's interests (e.g. corporations for conservative think tanks, labor unions for liberal ones). Staff typically draws more heavily from government, political parties and interest groups than from university faculties, and may be less credentialed in terms of social science expertise – but this is not always the case. Research products are likely to be closer to brief advocacy pieces than to academic tomes. The Heritage Foundation is the most extreme example of such an advocacy think tank.

Political party think tanks, similarly, are organized around the issues and platform of a political party and are often staffed by current or former party officials, politicians and party members. The agenda is frequently heavily influenced by the needs of the party. This sort of think tank is most prevalent in Western Europe, particularly in Germany, where institutions like the Konrad-Adenauer-Stiftung and the Friedrich-Ebert-Stiftung dominate the think tank landscape. But the United States, too, sponsors semi-public think tanks. The National Endowment for Democracy has two party affiliates, the National Democratic Institute and the International Republican Institute, as well as a business and a labor component. The Progressive Policy Institute, while independent, was established by the Democratic Party and with the encouragement of Governor Clinton prior to his run for president. A fifth category is for-profit think tanks like McKinsey Global Institute or the Economist Intelligent Unit, which are growing in number and competing for the same dollars, scholars and influence as other think tanks.

Each of these ideal types of think tanks has its relative advantages and disadvantages. Academic think tanks, because they emphasize scholarly objectivity and the social science credentials of their staff, face a particularly strong tension between the goals of scholarly objectivity and research, on the one hand, and policy relevance, on the other. Academics generally favor the former, while policy-makers prefer findings that are brief, clear, and free of the qualifications and restrained neutrality with which scholars frequently cover their conclusions.

'Contract researchers' have a leg up on academic think tanks in terms of policy relevance, since policy-makers often have outlined in fairly specific terms what questions they want answered. Their tension is primarily between the goals of scholarly objectivity and the policy preferences of their clients, especially if they are heavily dependent on a particular client. When the funder-client of a project has clear preferences, there is a risk that the funder may try to influence the results of the research or refuse to release research that does not match those preferences. At a minimum, this tension may pose a threat to the perceived objectivity of that research. Sometimes the threat is quite literal: in 1995, the US Agency for International Development (USAID) sponsored a joint research project between a US and a South African think think to assess the impact of USAID programs on South Africa's post-apartheid civil society. One of the study's conclusions was that USAID programs deferred too much to the ruling African National Congress and were thus stunting the growth of civil society and pluralism in South Africa. USAID refused to release the study until this conclusion was excised.

'Advocacy tanks,' which tend to have strong value positions and often take institutional positions on particular policy issues, face a tension between maintaining consistent value positions and perceptions of objectivity and completeness. To the extent that their messages are perceived to reflect inflexible values rather than 'objective' analysis, they may simply be ignored by a large part of their potential audience. Similarly, the party affiliation of think tanks limits their objectivity, credibility and independence; when their party is not in power, their access to and influence on policy-makers is much more limited.

In addition, some think tanks have a specific policy specialization, each with its own distinctive mode of agenda-setting, financing and staffing. One example is the Non-Proliferation Education Center in Washington, which deals only with public policy issues concerning non-proliferation. That includes a wider policy portfolio than one may think, however, such as space launch capacity, including economic sanctions and the operational policies of the National Institutes of Health and the National Center for Disease Control, the functions of the United Nations Social Commission (UNSCOM) and the International Atomic Energy Agency (IAEA) in Iraq, and much more.

These ideal types of think tanks have served as models for new organizations being established or points of departure for existing institutions that wanted to reinvent themselves. But most think tanks do not fit neatly into any one category, and the distinctions among them are becoming increasingly blurred. Hybrids that have some similarities to think tanks but stand outside at least the narrow definition of those organizations are also increasingly common. University research centers mirror academic think tanks; for-profit consulting agencies mirror government research organizations; temporary government commissions mirror some contract researchers; interest groups and public interest lobbies mirror advocacy tanks; and party research departments mirror party think tanks. As a result, it is better to think of think tanks along a continuum of structures and functions than in any set of rigid categories.

The evolving meaning of the term 'think tank' need not concern us further, but the evolving social and intellectual context must. Though the term was not yet invented, think tanks began to appear around 1915 as part of a larger effort to bring the expertise of scholars and scientists to bear on the burgeoning economic and social problems of that period. The growth of think tanks since that time is also tied to a series of major political, social and economic events that shattered conventional wisdom and forced policy-makers to seek innovative solutions to new and complex problems.

THEORETICAL AND HISTORICAL BACKGROUND

Why, suddenly, are there so many and so many different kinds of think tanks when, for many centuries, the governments of the world seemed to get along quite well without them? The answer has much to do with the intersection of the policy function itself and the changing philosophies of government in the twentieth century.

In order to govern well, governments need information, knowledge and means of implementation that connect informed policy to the relevant theatre of social operations. Information is data collected from the world, and it is not the same as knowledge. Knowledge comes from the integration of information into an inherited cognitive frame-

work that gives meaning and helps human beings make sense of the world in which they live. Means of implementation are often not a priority of policy intellectuals, so this important dimension is often ignored, but not by those actually working in government whose primary role is to make and implement public policy. Without the necessary administrative, budgetary and legal means to translate a policy into action, policy remains just words on a piece of paper. The 'theatre' where all this plays out is critically important since it involves the economy, defense and foreign policy, environmental issues, public health, and any number of other public policy domains.

In theory, how much information, knowledge and means of implementation a government needs to function is rooted in its political philosophy or ideology. This often revolves around the role and size of government and how to pay for it. Governments operating under socialist or statist ideologies generally assume responsibility for more, rather than less, of what concerns society. Put differently, the definition of what is public as compared to what is private is relatively large. Contrarily, governments operating under liberal ideologies (liberal meant in the original nineteenth-century meaning of the term, that is, Classical Liberal) rely more on a range of 'invisible hands' to achieve general social governance. The presumption is that market forces shape most economic decisions, while religious and philanthropic institutions care for the poor, the elderly, the ill and the disabled. Depending on particular historical and geographical circumstances, the liberal tendency is also inclined toward decentralized local government over centralized administration for most of the commonplace functions that might be assigned to the public domain. In this schema, whose explicit articulation is the hallmark of the Scottish Enlightenment thinkers of the seventeenth century, government is conceived as a clearinghouse for the lawful adjudication of social conflict and a vehicle for the common defense. Aside from the importance of the moral example of its leadership, government has no proactive programmatic function.

Historically, the most extreme example of socialism and statist ideologies is totalitarianism, and the examples that spring to mind include the former Soviet Union, Germany under National Socialism and China under the Chinese Communist Party. Even though there has been a tremendous fascination with think tanks by President Xi Jinping and other leaders in China, there is very little interest in independent think tanks or public policy research that is independent of the Orthodoxy of the Communist party. No need for think tanks exists because think tanks, by definition, are at least semi-independent of government, and it is the nature of totalitarian government to not allow for such semi-independent centers. On the opposite end of the spectrum, we tend to refer to liberal governments as Jeffersonian, after Thomas Jefferson's dictum that the government that governs best is the government that governs least. Pre-twentieth-century America and Great Britain are commonly accepted examples of Jeffersonian governments. Again, there was no need for think tanks because the need for government policy on a variety of social issues simply did not arise.

In this century an unexpected convergence has taken place between these antithetical philosophies of government. Totalitarianism has run up against the limits of its inherent inefficiencies, and even before the fall of the Soviet Union its leaders finally realized, as China's also do now, that central planning has its limits. But liberalism has run up against limits as well. Modern capitalism, distinguished as it is by high knowledge and capital inputs, great occupational diversification and unprecedented demands from an affluent

populace for various services, requires more than a series of invisible hands to make it work smoothly. The accretion of welfare state institutions in the United States beginning, not as often thought in the New Deal, but in the Progressive era, is one example of this. Another is the slow evolution of British political culture throughout the nineteenth century and into the early twentieth century – a political culture whose broad international influence has been enormous, affecting Central America and the Caribbean, Australia, New Zealand, South Africa, and many other domains as well.

In short, all modern governments face enormous and still shifting organizational and policy challenges. Indeed, as the late Mancur Olson (1965 [1971]) suggested, the institutional capacities of societies, governmental and non-governmental, define, more than anything else, whether a government is or can be modern. Governments liberal in their origins now presume to do more than their predecessors ever dreamed possible, let alone thought desirable. Statist governments are evolving in ways that require them to do less, but to do it much better than before. History may not have ended, and arguments over political philosophy go on, but in a gross sense, the definition of the proper domain of government – at least in most modern countries around the globe – has grown ever more similar. This is what some observers, like Anthony Giddens, mean when they refer to 'third way' politics.

Moreover, technological developments pushing economic change and social change seem, to many if not most contemporary observers, to be accelerating. This puts a premium on planning, so that government can meet not only today's challenges but anticipate tomorrow's. Here we encounter a big problem: governments don't adapt or plan particularly well. This is where think tanks have a unique and important role to play.

Governments tend to be large, internally differentiated organizations, and size alone is a surprisingly crucial variable in determining a government's functional limits. Following Nicholas Georgescu-Roegen's *The Entropy Law and Economic Process*, the larger an organization, the larger the transactional costs needed to keep it functioning. Moreover, as size increases, transactional costs grow not arithmetically but exponentially. Since transaction costs are a diseconomy, it follows that diminishing returns in efficiency are bound to set in at some point as an organization grows larger. This is why socialist planning apparata did proportionately far greater harm in a huge place like the Soviet Union, in comparison to their effect in the comparatively smaller Israel. It is also why revolutionary innovations in information technology have generically positive economic implications, for they enable relatively smaller, non-hierarchical organizations to compete effectively for production and services niches.

Not only is coordination a problem, but conflicts of interest arise between incommensurate values as institutionalized within separate administrative and policy domains. A pertinent US example is the fact that the State and Defense Departments are charged with protecting US foreign and security interests, while the Commerce Department is charged with promoting US trade. When it comes to the question of export controls, State and especially Defense tend to want more rigorous controls, and Commerce wants fewer and less rigorous ones. This tension is built-in; it will never go away. Planning for a new policy concerning, say, US satellite launch capability, which would have to involve the National Aeronautics and Space Administration (NASA), the Justice Department, the Congress and the intelligence community as well as the three executive departments noted above, is therefore no easy task. Unless a higher authority, and in this case that would have to

be the president, focuses on a problem and imposes a solution, such problems at best get managed, not solved.

Examples of such cross-cutting interests within government are rife. The Department of Transportation wants to promote the building of infrastructure, but the Occupational Safety and Health Administration (OSHA) and the EPA want to attach limiting conditions, so there is inevitable conflict. When a bomb goes off in the United States, the Justice Department and the Federal Bureau of Investigation (FBI) go into prosecutorial mode, but the Central Intelligence Agency (CIA) and Defense Intelligence Agency (DIA) want to investigate the possibility of foreign sponsorship as a national security, not a legal, issue. Does the FBI sometimes withhold information from the CIA out of fear that CIA personnel will jeopardize a pending court case? Absolutely. The Labor Department wants to maximize employment, but Health and Human Services tends to favor a higher minimum wage, which tends to increase unemployment. Examples could be multiplied almost without end.

As a result of such conflicts, much government policy tends to form through a process of accretion characterized by compromise and deliberate ambiguization whenever discrete departmental decision-points collide. Over time, policy and attendant legal structures can develop that, if looked at from an objective outside vantage point, seem illogical and even dysfunctional. Planning from the basis of such structures tends to work well when interdepartmental conflict is modest; it tends to work poorly when the level of such conflict is high.

Second, in high policy councils of every sort, the urgent always pushes out the merely important, and the long term loses salience in direct proportion to the fear that the short term will be lethal. So while most governments have various institutionalized planning directorates, with presumably appropriate research functions to aid them, in fact much of the time these directorates are either fuddled by bureaucratic inertia or, more often, ignored by busy politicians worried about saving the day, not the next decade when they'll be safely out of office.

Those who have worked in government, particularly in high-level positions, came to recognize these problems as the US government grew in size and complexity during and after World War II. Think tanks made their mark because it was believed that they were immune to many of the problems plaguing adaptation and planning in government. They were relatively small independent organizations that had no vested bureaucratic interests and so could take synergetic, transdepartmental perspectives on problems. They thrived on informality. Free from the pressure of immediate deadlines and line responsibilities, they could be forward thinking. In terms of research methods and technologies, they could innovate more quickly than government. In general, because think tanks were funded by the project and not by the hour, they did things faster than government. Also because many early think tanks were associated at least indirectly with prestigious universities, they carried that prestige with them as well.

The promise of think tanks as a means to ameliorate the shortcomings of government to adapt and to plan in policy domains has been borne out for the most part. Think tanks have not been immune from error, from theoretical cul-de-sacs, and from bias and fads that have affected everyone else in their day. But think tanks have done well enough to become part and parcel of the way that government works in the United States.

THINK TANKS IN THE US CONTEXT

The origin of think tanks in America is far more complicated than the introductory sketch given above suggests, and its complexity deserves careful attention.

Think tanks are an American invention, and their development largely an American phenomenon. Of the approximately 6500 think tanks in the world, more than half are in the United States. Think tanks have had, and still have, a greater influence within the US policy process than in any other country. Why is this?

There are three crucial reasons. First, the idea that scientific research could inform public policy is a twentieth-century notion that happened to coincide with a period of great and socially tumultuous American economic and corporate growth. This coincidence of the early Progressive era helped found a tradition of corporate and personal public service philanthropy in the United States that has arisen nowhere else in the world to nearly the same degree. The Fords, Rockefellers, Carnegies, Mellons, and the other hundreds of business barons that endowed public works in the United States created the financial infrastructure for the American non-profit sector that exists today. Some of this benefaction went into universities, some into free-standing research, service and advocacy institutions of various sorts. In the decades since, a huge host of smaller foundations have joined and augmented this tradition. It is not surprising, then, that just as there are more think tanks in the United States than in the rest of the world combined, there are more public service-oriented foundations in the United States than in the rest of the world combined as well.

Second, public policy-making in the United States is very porous to non-governmental influence compared to virtually all other countries. There is an obvious structural reason for this: The US system of government features a much sharper division between executive and legislative branches than in standard parliamentary systems. In a parliamentary system, the prime minister is both the executive and stands at the head of his party in the legislature. A president does not. In most parliamentary systems, initiatives for legislation come from an indistinct collusion between the head of the government, his party and its parliamentary contingent. In the United States, initiative for legislation can and does come from both Congress and the White House.

In particular, the crucial process of deciding appropriations and budget authorization is more adversarial between branches of government and political parties in the United States than it is in parliamentary systems. This means that external influence and input can occur at many more points in the US policy process in comparison to policy-making elsewhere. To use an economic metaphor, there is a larger market for external inputs, and since interests rise and fall on influencing policy, the market never goes without its bidders and buyers.

This explains why the US legislative branch alone has so many large in-house research functions. Consider just a few of them: the Congressional Research Service; the Office of Technology Assessment; the Congressional Budget Office; and the General Accounting Office. The raw research capabilities of any one of these offices probably dwarf the total capacity of most other governments in the world. Remember, too, that all of these research groups have formed associations with outside think tanks.

The third and perhaps most important reason for the continuing influence of think tanks in US political culture is that the recruitment process into and out of government

in the United States is wider than in most other democracies. The United States does not have as closed a government class as most other political cultures. Rather, through what is known as Title C appointments, politicians can become government ministers (e.g. Les Aspin, a congressman, became Secretary of Defense). Governors, like Jimmy Carter and Ronald Reagan, and other local politicians can jump into national politics. Journalists (e.g. Strobe Talbott), businessmen (e.g. Robert Rubin) and academics (e.g. Henry Kissinger) come to occupy high policy positions in far greater number and diversity than elsewhere.

The now well established 'revolving door' and the concentration of top US think tanks located on 'think tank row' now constitute a clear manifestation of the important and visible role think tanks play in US policy. Some think tanks, as discussed, are 'holding tanks' for experts and politicians whose political leanings leave them in the opposition at a given time, which creates the 'revolving door' between think tanks and government. Some think tanks, such as Brookings and the American Enterprise Institute, are widely thought of as repositories of shadow governments when the opposition is in office. Think tanks connected with prestigious universities are instrumental in cycling former politicians, journalists and cabinet officials into university life. For example, professors such as Joseph Nye and Graham Allison at Harvard University, who have previously occupied high government positions, regularly bring in politicians like Geraldine Ferraro, journalists like Barrie Dunsmore, and diplomats like Cyrus Vance into adjunct research positions at their university. Even senior foundation personnel find themselves either coming or going from the government or think tank world. Dean Rusk was head of the Ford Foundation before becoming Secretary of State.

Prominent journals, too, are part of the process. In the foreign and security policy domain, for example, four quarterly journals are highly regarded. *Foreign Affairs* is a journal published by the Council on Foreign Relations, which is, among other things, a think tank with offices in New York and Washington. *Foreign Policy*, until recently, was published by the Carnegie Endowment for International Peace, which is also a think tank located in Washington. *The National Interest* does not belong to a large institution or perform research functions, but both its editor and executive editor have worked at think tanks and served in government positions, and the journal gets many of its articles from former, present and future think tankers as well. *Orbis* is published by the Foreign Policy Research Institute, a Philadelphia-based think tank that increasingly disseminates its research in abridged form over the internet.

In short, there is a very broad 'interlocking directorate' between government, elite journalism, academia, the foundation world and think tanks in every high-profile public policy domain in the United States. Staff move between all these areas with a regularity and speed that exists in no other country. As a result, people 'know each other' in these various domains, and it is very common for career tracks to move back and forth between two, three or even more occupational tracks. Think tanks are, to use a neurological metaphor, the corpus collosum of this process. They serve as filters for talent as that talent moves from one occupational domain to the next.

Finally in this regard, this interlocking directorate is as wide, richly talented and mobile as it is because it is sizable, which is to say that it has a sort of critical mass. To become as sizable as it is, the country itself has to be not only large but cosmopolitan in its thinking and have deep pockets.

To be more specific, in the United States there are not three or four but three or four

dozen world-class universities. There are not two or three but well over a dozen intellectually serious weekly, monthly and quarterly policy-oriented national publications. The research arm of the government is huge; every cabinet position and dozens more besides have permanent research staff at whose pinnacle stands one permutation or another of an interlocking directorate as described above. And, as noted, the number of foundations with permanent staff that monitor and interact with academia, government, think tanks and the publishing world is unprecedented – and so is the amount of cash that these foundations are willing to spend on activities that are not directly for profit.

What this means, among other things, is that because people move around so much, the transference of knowledge into policy is to some degree personalized. Very often an expert at a think tank will write a report, or publish a study, or evaluate a program that government policy-makers will then read and realize they themselves had commissioned the study. But frequently the think tanker himself or herself is either temporarily or more permanently taken into government to implement his or her own ideas. Sometimes this happens at the higher levels, via the Title C route, but more routinely it happens at many other levels as a result of the dynamics of the interlocking directorate described above. Two excellent examples underscore the value and importance of the "revolving door": the 9/11 commission and the economic crisis of 2008. In both of these cases, think tanks played a central role in helping the US government understand and respond to these national crises.

The wider implications of this sort of mobility are major. Bringing intellectually vested and often prestigious individuals into policy-making circles shakes up those circles and revivifies and redirects them on an episodic basis. Obviously, there is a price to be paid for such disruptions, for the institutional memory of a bureaucracy is as much a precious thing as its tendency to be inert and self-interestedly closed is a bad thing. But in the United States there is a kind of 'creative destruction' in policy research functions, thanks to think tanks and their influence, just as there is in market capitalism itself. The 'mixing it up' to which think tanks contribute so much ensures that ideas get generated and are exchanged, that they are flung into the appropriate professional arenas for debate, and that, at times, they are launched out of a professional arena and become politicized through the media. In short, think tanks contribute to the relative democratization of policy debates. Overall, this is a healthy process despite some downsides.

What are those downsides? As already noted in passing, not all think tanks are composed of disinterested intellectuals backed by purely charitable foundations. Some think tanks are oriented toward advocacy rather than dispassionate analysis. They may be so oriented on the basis of ideology (e.g. the American Enterprise Institute, which is conservative) or commercial interests (e.g. USA Engage, which is a recently formed ad hoc business lobby, with a modest research function dedicated to overturning US unilateral economic sanctions). Sometimes debate can be imbalanced through the power of money. Sometimes rather half-baked ideas (supply-side economics, many would argue) can assume disproportionate influence thanks to the interlocking directorate described above. Sometimes it is not wise to short-circuit the professional work of bureaucracies and place in their stead political appointees with popular but dubious notions about how to solve an important national problem. Sometimes in the 'creative destruction' of a think tank-driven policy process one gets more destruction than creation.

Furthermore, sometimes government agencies use think tanks not to learn about policy but to gain leverage over bureaucratic rivals. Many a study has been financed with

taxpayer money for the purpose of hammering home a preconceived point designed to gain a government agency more money, personnel, clout or prestige in intergovernmental competitions. Sometimes think tanks are used because government cannot hire, in a timely fashion, personnel to perform a task. Sometimes government faces hiring ceilings, and so must go outside for help. Sometimes it does not pay for government to staff temporary projects. But in all these cases it does not follow that outsiders unfamiliar with policy routines will necessarily do a better job than a fully staffed bureaucracy – quite the contrary much of the time.

And finally in this regard, as suggested above, think tanks have made serious mistakes. Quantitative analysis is good for understanding certain types of problems but downright misleading when (mis)applied to others. The positivist bias of social science, and the social science bias of think tanks after World War II, led to many epistemological atrocities and wastes of money. To be sure, Senator William Proxmire's famous 'Golden Fleece' awards often bore a serious point. The conservative critique of the think tank mentality of the 1960s and 1970s – that it neglected the importance of values, and that it shared a pro-big government social engineering bias – was essentially, if not entirely, correct. And for all their genius and independence of mind, where are the think tank studies from 30 and 40 years ago that told of the impact of commercial television, the internet, new media and social networks on 'deep' literacy, that forecast the impact of the national highway systems on the viability of urban neighborhoods or that warned of the general social and public health implications of widespread female contraception? Think tanks missed many of the biggest issues, just like nearly everybody else.

Still, compared to bureaucracy alone, think tanks have helped governments think. Knowing their limits, wise American policy managers seek the best mix between innovation and steadfastness, between think tank/external input and bureaucratic/internal input. It is not an easy task to create and maintain such a balance, and as always, it comes down to having talented and experienced people in the right place to do so. But at least in the American experience, the challenge signifies that there is a choice.

Alas, most other countries, including most other democracies, simply do not have such a choice, and they increasingly feel that problems are outrunning the capacity of government to keep up with them – whether it concerns drug abuse, environmental despoliation, poverty, the corruption of world financial markets or international terrorism using weapons of mass destruction. Worse, when the reaction of besieged policy-makers to a sense of mounting problems leads to more government rather than more innovative government, it only makes the disadvantages of operating through large, inertia-prone, hierarchical organizations worse.

And things get really bad when information (which these days is easier than ever to collect in near limitless abundance) is equated with knowledge (which is still as hard as ever to acquire, maybe harder). They get even worse when there is a disconnect between knowledge and the implementation of policy. Since government can more easily collect information than process it, and since ideas are more abundant than are the means to change existing operations, the tendency often is for each stage of the policy function to drown the successive one. The result often is 'muddling through,' to recall Herbert Lindbloom's well-turned phrase, if one is lucky, outright paralysis if one is not. In light of all these problems, think tank culture offers the chance to cut through such debilities. Even in their various and confusing forms, this is the key advantage of think tanks.

NOTE

1. For an excellent discussion of the role of think tanks in DC, see Haass (2002). For an overview of the changing role of think tanks, see McGann (2002).

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23. Exogeneity and convergence in policy formulation: contested theories, approaches and perspectives
Darryl S.L. Jarvis

INTRODUCTION

Historically, scholarship into policy formulation has been strongly influenced by Weberian legal-rationalist conceptions of bureaucracy. At the apex of bureaucratic hierarchies, political leadership and senior bureaucrats formulate policy, while ministries and other organs of the state manage functional issues associated with implementation and day-to-day administration (Bach, 2012). Policy scientists have thus largely focused their theory building and analytical efforts on a generic set of elite bureaucratic actors: rationalist functionaries that manage the policy formulation process, control information inputs, structure and interpret the policy problem, and provide frameworks of analysis for their management and political accommodation (Kay, 2011; Reimann, 1973; Ritzer, 1975). Much scholarly effort has therefore focused on the sources of policy advice and the information directed at senior policy makers, and how this advice is filtered, utilized, disseminated and impacts policy outcomes (Craft & Howlett, 2012; Maley, 2000; Rich, 1997; Verschuere, 2009). A similar literature has focused on elite policy knowledge and its impact on policy formulation, problem definition and policy design, highlighting biases in the use of instrumental, technical and scientific knowledge at the expense of other social, political and economic knowledge (community, participatory, stakeholder knowledge sources) (Daviter, 2015; Fischer, 2003; Freeman & Sturdy, 2014; Mead, 2015; Oh, 1997; Radaelli, 1995; Weiss & Gruber, 1984). Still other approaches have focused on mapping the Weberian legal-procedural contours of the policy-making process, highlighting the political relations between actors (legislators, lobbyists, analysts) and institutions that produce policy (legislative bodies, the executive, bureaucracy, political coalitions), and the juridical frameworks that facilitate the implementation of policy and its operation (laws, regulations, institutions, procedures) (Hill, 1997; James & Jorgensen, 2009, p. 142).

Such Weberian-inspired approaches to understanding policy formulation, however, have become increasingly problematic. In large part, this reflects a structural reconfiguration in the nature of political organization – in particular, the movement from government to governance (Levi-Faur, 2016; Rhodes & Rhodes, 1996; Rosenau & Czempiel, 1992). The emergence of the post-Weberian state has transformed the nature of government and the location of political authority, and with it the domains within which policy formulation occurs and the processes by which policy is made. Centralized, hierarchal bureaucracies that transmit policy decisions downwards through cascading processes of command and control have been increasingly disrupted by policy processes that span across sectors, issue areas, professional networks, institutions and geographical space. These reflect the emergence of transnational policy regimes that govern increasingly complex exchange

relations; for example, trade, product certification, food safety standards (handling, storage, transportation), food tracing regimes, product and manufacturing standards (chemicals, pharmaceuticals, electrical components), toxic waste management, nuclear safety, phytosanitary standards, and various enforcement regimes associated with human trafficking, drugs, child exploitation and criminality, among many others. Policy formulation, in other words, has passed increasingly from the hands of senior bureaucrats and centralized bureaucracies into more complex, diffuse and decentred policy environments. In the post-Weberian state, political management is attained through the use of 'negative' instruments – coordination, political delegation and regulation – rather than 'positive' instruments associated with direct control and intervention (Balla, 2011; Jayasuriya, 2005; Majone, 1997).

These developments have had important consequences, transforming both the location of policy making and the sources of policy-making knowledge. Relatively closed, national systems of policy formulation in which knowledge inputs were managed and filtered through endogenous stratums of policy mandarins and internal bureaucratic expertise have largely dissipated. Increasingly, policy making and the sources of policy knowledge reflect greater levels of exogeneity, where sites of expertise and knowledge inputs are often extraneous and situated in specialist communities of practice or complex networks of technicians, advocacy groups and civil society. Policy formulation associated with competition practices, regulatory reform, tax, trade facilitation, corporate governance, innovation, science and technology, industry policy and numerous others, for example, are as likely to be based on policy knowledge filtered through the technical committees of the Organisation for Economic Co-operation and Development (OECD), the World Trade Organization or the scientific committees of UNESCO (United Nations Educational, Scientific and Cultural Organization) as they are on policy knowledge held by senior bureaucrats of the relevant national ministries (Finnemore & Barnett, 2004). Macroeconomic policy too is just as likely to emanate from ideational perspectives filtered through organizations like the Bank for International Settlements (BIS), the International Monetary Fund or the World Bank as it is the national treasury. Indeed, policy formulation in respect of bank capital adequacy ratios, macroprudential regulatory standards, financial compliance and enforcement regimes, and reporting and transparency standards increasingly reflects the standards and policy positions mediated by the BIS, while the ideational perspectives of central bankers towards monetary policy, interest rates and currency valuations are largely derived through the collective views forged at BIS gatherings and annual meetings at Jackson Hole. Similarly, the policy regimes on which accounting and finance practices now rest (how financial assets, liabilities and contingencies are counted; reporting and disclosure requirements; financial forecasting methods; and the systems of classification by which assets are allocated to specific categories) now emanate largely from organizations such as the International Standards Accounting Board (IASB) rather than from national statistical bureaus or accounting offices (Carroll & Jarvis, 2013; Koppell, 2010).

By their very nature, post-Weberian governance regimes thus reflect an existential movement from *endo*geneity to *exo*geneity in policy making and policy knowledge, a process that has been coterminous with the rescaling of governance across geographic space but also across increasingly complex, diffuse sets of knowledge communities, stakeholders, practitioners and civil society organizations.

Post-Weberian governance systems thus display three dominant and ubiquitous trends: first, processes of transnationalization in terms of the sources of policy knowledge; second, a repositioning of the role of government in relation to policy formulation; and third, the dislocation of government and bureaucracy from the apex of policy making as non-governmental bodies, private associations and professional networks play an increasingly important role in policy development and standards-setting (Büthe & Mattli, 2013; Colebatch, 2006; Kooiman, 2008; Koppell, 2010; Radin, 2000).

These observations have important implications for how we understand policy formulation, who makes it, why and how. It also suggests the need to reframe our theoretical lenses and focus on the processes associated with the transmission of policy knowledge, how and through what conduits policy knowledge is diffused, how policy knowledge is learned and internalized within specific national and institutional contexts, and why.

In this chapter I address the increasing influence of exogeneity on policy formulation. I do so by constructing a series of heuristic typologies as a means of organizing the now voluminous literature that has arisen to theorize and explain these trends, the new contexts of policy formulation, the transfer of policy knowledge across geographic space, the transnational nature of policy learning, and the structural forces propelling this change. These literatures are expansive, indeed discursive, but singular in their attempt to grapple with the implications of post-Weberian governance systems for political organization and policy making. Indeed, a core commonality across the literature is the broad notion of diffusion, precipitating what various authors have termed the transplantation of 'regulatory capitalism', 'neoliberal governmentality' or 'governance without government' – processes which are generating a larger, overreaching tendency towards policy convergence (Cao, 2012; Fawcett & Daugbjerg, 2012; Levi-Faur, 2005; Levi-Faur et al., 2011; Peck & Theodore, 2015; Pollitt, 2001; Rosenau & Czempiel, 1992). That is, processes of policy diffusion and transfer lead ultimately to an increasing sameness of policy approaches, or what Knill terms a 'general expectation of cross-national policy convergence' (Knill, 2005, p. 764). Increasing degrees of exogeneity in policy formulation, in other words, embed similar frameworks, policy practices and policy approaches across spatial and institutional contexts, creating potentially greater levels of similarity and convergence over time.

These debates feature centrally in much of the literature surrounding post-Weberian governance systems. However, while observations about increasing levels of exogeneity have generally been accepted as an increasingly important aspect of policy knowledge and policy formulation, the relationship between exogeneity and convergence remains problematic, generating a sub-set of literatures and debates about the extent to which convergence in terms of institutional forms, policy design and governance outcomes can be observed (see Goldfinch & Wallis, 2010; Pollitt, 2001):

> while it is now widely acknowledged that the boundaries between jurisdictions and policymaking sites are becoming more porous, that policy learning and transfer have become continuous (if not endemic) processes, and that the rate of transnational policy diffusion is accelerating, there are unresolved debates around whether these processes are driving 'convergence' in policy regimes; whether they imply a fundamental challenge to, or reconstruction of, conventional sources of (national) political authority; and whether they are most appropriately understood in terms of 'network' or 'restructuring' ontologies. (Peck & Theodore, 2015, p. 4)

Despite this observation, much of the debate about the relocation of sites of policy formulation and sources of policy knowledge remain synonymous with theory building and empirical investigation of the extent to which this is leading to cross-national policy convergence. These literatures I thus treat collectively as a dominant set of approaches that explore three fundamental and interrelated puzzles: (1) the implications of increasing exogeneity on policy formulation in terms of policy learning, diffusion and policy transfer; (2) the implications of exogeneity on new and emerging modes of governance; and (3) the relationship between exogeneity and convergence.

I organize the literature into three typologies which I characterize as: (1) the spread of neoliberal governmentality; (2) the globalization of policy formulation; and (3) policy formulation through policy transfer and ideational diffusion. While each of these perspectives is treated discretely for purposes of analysis, in reality the boundaries between such perspectives are blurred and represent a vexed intellectual-theoretical continuum.

THE SPREAD OF NEOLIBERAL GOVERNMENTALITY

A now common and expansive series of perspectives attempting to delineate those forces causing convergence and relocation in the sites of policy formulation derives from what we might broadly term a critical political economy literature. This literature identifies changing capitalist modes of production and accumulation – specifically, the transformation from Fordist to post-Fordist (or flexible) regimes of accumulation – as instrumental drivers forcing states to respond in broadly similar policy terms to increased competition for capital (Amin, 1994; Cahill, 2014; Harvey, 1990; Hay, 2004; Jessop, 2002). In the post-war era, for example, the Keynesian state enjoyed relative insularity from highly mobile capital by controlling market access through mercantilist trade and investment practices (protectionist measures that included tariffs, quotas, closed investment and financial regimes, or capital account measures limiting convertibility and profit repatriation). The insular nature of such state-based systems of national capitalism allowed for the instrumental management of core contradictory forces or competing interests, in effect allowing the state to strike bargains with labour and capital (Gilpin & Gilpin, 2001; Shields et al., 2011). While the particular policy configurations varied between states, in essence they all focused on similar policy goals: orchestrating labour compliance and productivity increases in order to support returns on capital; commitments from capital to sustain investment levels in order to support employment, innovation and economic growth; state reciprocity for commitments from labour in terms of policy instruments supporting social protection arrangements (unemployment insurance, pensions, housing, health and education entitlements); modest wealth and income redistribution through progressive taxation; and policy regimes to reward capital in terms of tax concessions on investment (Brenner, 2003; Cahill, 2014; Harvey, 2005; Majone, 1997).

Over the last several decades, however, this model has been increasingly eroded, in part because of the increasingly porous nature of the nation-state which has witnessed systems of discrete national-capitalisms replaced with international markets, and in part because of ideational attacks upon the social democratic nature of state-labour-capital relations under Keynesian systems of social-political and economic management. The emergence of new international markets, in particular the spread of capitalist market-based relations

to Asia, Latin America and Africa, combined with the emergence of an increasingly glo-balized liberal trade regime, deepening capital mobility and transnational investment, has fundamentally transformed the international political economy, intensifying inter-state competition for capital, industry and jobs (Grieco & Ikenberry, 2003; Ruggie, 1982). States have thus been forced to respond in relatively similar policy terms, including:

- Capital account liberalization to facilitate inward foreign investment and profit repatriation.
- Liberalization of investment regimes including tariff reduction, and the removal or reduction of quotas and other non-tariff barriers to facilitate inward flows of capital.
- The construction of regulatory regimes to support private sector participation and encourage employment expansion.
- The provision of government guarantees to protect international capital and remove concerns associated with government expropriation.
- The establishment of independent regulatory agencies to reduce the possibility of government opportunism and political risk in terms of the treatment of foreign investment.

Such policy responses have become a standard means of creating regulatory environ-ments designed to attract and facilitate foreign investment, enhance private sector par-ticipation in the economy, sustain employment growth and generate deeper economic engagement with international markets. Indeed, such policy stances have been supported through rapid growth in the adoption of bilateral trade and investment agreements, and multilaterally through growth in regional trade/investment partnerships and forums (Trans Pacific Partnership, Transatlantic Trade and Investment Partnership, Asia-Pacific Economic Cooperation and so on), as well as regional economic unions (North American Free Trade Association, ASEAN Economic Community, Latin American Free Trade Association, European Union). These mechanisms represent deepening elements of a broader fiat of neoliberal policy measures that have increasingly defined the menu of policy choices available to governments, including reducing national barriers that impede capital mobility, adopting non-discriminatory investment regimes in the treatment of foreign capital, and removing state protectionism/monopolies through deregulation, privatization and marketization. These are interrelated processes that serve to further integrate nation-states within the international economy (Carroll, 2014; Carroll & Jarvis, 2013; Jarvis, 2012).

At the same time, increasing competition for foreign capital has also forced govern-ments to enhance the competitiveness of their policy regimes in order to carve out a comparative advantage relative to other states. Tax regimes, particularly as they apply to corporations, have been simplified, and taxes on corporate earnings rolled back in an attempt to encourage capital formation and new foreign investment. Similarly, the utiliza-tion of tax policy incentives, including investment write-down provisions, the provision of establishment grants/allowances and the introduction of 'tax free holidays' have become increasingly standard policy instruments designed to lure or retain foreign capital (Cao, 2010; Murshed, 2001; Painter, 1995).

For critics, however, neoliberal policy approaches are not without cost. In favouring the interests of capital, such policy approaches may reduce the fiscal capacity of states

and erode their ability to sustain welfare expenditures, directly provide public goods and services, or own industry and assets (Beck, 1999; Harvey, 2005; Jarvis, 2007; Mishra, 1999, p. 9). Waves of privatization – for example, the divestiture of state assets and deregulation of government monopolies in areas such as banking, telecommunications, utilities (water, sanitation, electricity) and infrastructure (airports, roads, railways, ports and so on) – have opened up various sectors to private (often foreign) investment and competition and in the process introduced new user-pay market dynamics. For critics, such developments reflect a reconfiguration in the relationship between the state and market, indeed between public versus private interests, which signals a diminished level of policy autonomy in terms of governments being able to devise and formulate policy specific to their own interests and the needs of citizens. Indeed, the increasing ubiquity of these types of policy approaches suggests a reordering in the relative power between national policy makers and global capital, or the emergence of what some theorists have termed a widening democratic deficit (Balla, 2011; Brenner et al., 2010; Peck et al., 2012; Yergin & Stanislaw, 2002). Policy formulation, in other words, while still the preserve of national governments, has witnessed a reduction in discretionary scope because of the structural nature of inter-state economic competition and the spread of global capitalist relations.

While structural changes in the nature of global market relations are commonly invoked as an explanation for the increasing ubiquity of neoliberal policy convergence – and indeed a main driver of policy formulation – this transformation has also been driven by changing ideational values. Specifically, post-war policies associated with Keynesian state-led economic management, in which governments played a central role in the economy through a combination of direct intervention, ownership and central planning, have been increasingly rejected since the late 1970s (Harvey, 2005; King, 2002). The adoption of ideological agendas that favour markets over government, and the preference for market mechanisms in the delivery of public goods and services, have changed what governments do and how they do it (Painter & Pierre, 2005). This can be observed in what Hood et al. (1999) note as the emergence of 'regulation inside of government', where the adoption of managerial practices relating to service levels and the audit of public expenditures is designed to align government with the practices of private market actors (Hood et al., 1999; Lodge & Wegrich, 2012, pp. 121–2). As Deem and Brehony observe:

> [The] characteristics of 'new managerialism' in [public] organizations include: the erasure of bureaucratic rule-following procedures; emphasising the primacy of management above all other activities; monitoring employee performance (and encouraging self-monitoring too); the attainment of financial and other targets; devising means of publicly auditing quality of service delivery and the development of quasi-markets for services. (Deem & Brehony, 2005, p. 220)

This shift represents a transition from public administration to public management, where performance accountability is used to set in place metrics of valuation that promote the marketization of government activities (O'Toole & Meier, 2011; Pollitt & Bouckaert, 2011). These include the development of performance indicators, benchmarking, comparative rankings, and the use of 'activity-based costing' (ABC) accounting principles designed to assign to each activity a specific cost, identify the resource consumption of each actor/unit within an organization, and calculate the costs (including fixed overhead costs) in order to reflect the 'true' cost of service provision. As with the private sector, government activity is thus broken down into transactional inputs and outputs, which

are then costed using ABC accounting principles and measured against performance metrics in order to assess levels of 'efficiency', 'value for money' in service provision or financial 'loss' (that is, waste and inefficiency) in the production of government services. The application of new public management practices thus extends market rationality into government activities, introducing notions of resource optimality through econometric costing of government service delivery, including the opportunity cost to government of providing certain services versus others, or the opportunity cost of government ownership of certain assets (real estate, a human resource office, consular offices and services, for example) compared to the benefits or cost efficiencies of divestiture and service delivery through other means (contracting out, privatization, public-private partnerships and so on) (Deem & Brehony, 2005, p. 220).

Critical political economy approaches thus understand the twin processes of neoliberal policy convergence and the increasing diffusion of post-Weberian governance systems as interlinked phenomena: structural changes in the organization of capitalist market relations and ideational changes towards the role of government and its relationship to the market. The former sees the emergence of a post-Fordist state as instrumental, compelling governments to adopt 'leaner and meaner' neoliberal policies in order to remain internationally attractive to capital. The latter understands the adoption of policy instruments such as marketization, privatization and a reduction in the size and presence of government in the economy as a preferred ideological objective (Leys, 2001). Convergence around neoliberal policy approaches is thus the outgrowth of deepening global forces associated with the spread of capitalist relations of production, the emergence of a common set of policy problems in terms of attracting capital, and broadly similar sets of policy responses which coalesce around core ideational values about the role of government vis-à-vis the market.

THE GLOBALIZATION OF POLICY FORMULATION

A second typology extending the convergence thesis and the forces structuring policy formulation is situated around a large body of literature focused on globalization. Globalization refers to the notion that ideas, values, government organization and governance increasingly merge around similar sets of approaches and policy positions (Drezner, 2001). This literature, in essence, sees national borders, discrete national economies, languages, indeed cultures 'dissolving' and becoming more porous through a process of deepening interdependence. Driven in part by technological advances in communications and transportation technologies, most notably the advent of mass containerized shipping and air travel, interdependence across economic, political and social domains has deepened causing what Roland Robertson terms the 'compression of the world and the intensification of the consciousness of the world as a whole' (Robertson, 1992, p. 2). For globalization theorists, technological developments increasingly obliterate space and geography, enabling the dispersion of production systems, the construction of global value chains, and in turn the emergence of global markets for items as diverse as horticultural and food products, air conditioners, motor vehicles, luxury goods, and a vast array of services such as legal processing, accounting, payments, settlements and clearance systems, medical and educational services – among many others.

For globalization theorists these developments are important since they increasingly challenge geographic space and systems of national legal-territorial jurisprudence as the primary systems of governance through which economic and social activity are filtered. With ever increasing levels of human mobility, for example, crossing borders to purchase goods and services fundamentally changes market thresholds and thus the ability of governments to manage national economic domains – perhaps even dissolving economic sovereignty. For globalization theorists, the notion of a national market for Gucci, a Ford motor car, an electronic computer chip, hair dryers, a university degree or a heart-valve transplant is a historical anachronism which no longer captures the global context in which economic and social activity now occurs. Globalization is thus a transformative *zeitgeist* that levels national difference and produces increasing interdependencies (Held, 1999). Equally, the sense that national borders shield and contain specific approaches to the provision of public goods (health, education, pensions, unemployment insurance and so on), or specific national ideas or patterns of governmental conduct, is increasingly anachronistic for globalization theorists. The spread of ideas, international comparisons of service delivery, governance quality and governance outcomes increasingly reflect a global mindset that serves to distil common understandings of policy problems and forge similar policy perspectives and approaches, and leads to the transnational movement of ideas and best practices in the management of economic and social phenomena (Drezner, 2005).

While cruder globalization perspectives perhaps overstate the degree to which this may lead to a 'global village' or the dissolution of borders in their entirety, clearly the emergence of issue-based interdependencies (for example, cross-border crime, child exploitation, trade in illicit drugs, global climate change, the protection of endangered species, energy security, refugees, human rights, food security, student mobility, or the management of space junk and so on) is witnessing a preponderance of policy approaches formulated through collaborative coordination and the emergence of interdependent systems of governance (Held et al., 2005; Vidovich, 2004). As Stephen Ball notes, this is not a thesis about globalization and the 'hollowing out of the state' but 'rather a new modality of state power, agency, and social action and indeed a new form of state' built on exogeneity and interdependence as primary drivers of policy formulation (Ball, 2010, p. 14; Drezner, 2001, 2005; see also Hirst & Thompson, 1999). Globalization thus relocates sites of policy knowledge and policy formulation into diffuse interdependent spaces, in part because the complexity and resource requirements of managing global problems is beyond any one government, and in part because policy effectiveness rests in transboundary coordination and cooperation (Banks et al., 2005; Riedner, 2015).

POLICY FORMULATION THROUGH POLICY TRANSFER AND IDEATIONAL DIFFUSION

By far the most dominant set of perspectives capturing the rise of exogeneity on policy formulation has been the literature on policy convergence (Bennett, 1991; Drezner, 2005), policy diffusion (Dobbin et al., 2007; Elkins & Simmons, 2005; Gilardi, 2010) and the rise of international policy networks (Blanco et al., 2011; Cao, 2012; Grossmann, 2013; King, 2010). This literature broadly refers to the idea of policy transfer – 'a process in which knowledge about policies, administrative arrangements, institutions etc. in one

time and/or place is used in the development of policies, administrative arrangements and institutions in another time and/or place' (Dolowitz & Marsh, 1996, p. 344). This literature invokes two common explanations for policy transfer.

The first represents a neo-functionalist theoretical understanding of convergence by addressing the sociology of modern industrial organization and the similarities that arise in systems of socio-economic organization. Modernization, industrialization, urbanization and the transition to post-industrial society, for example, require certain institutional and organizational technologies in order to sustain their viability (see Bell, 1999; Galbraith, 1972; Hoogvelt, 2001; Rostow, 1971). The socio-economic processes of modernization, for instance, create ubiquitous policy and administrative challenges or problems: the requirements for efficiency and optimality (in terms of administrative organization, planning, resource allocation, urban management) and institutional capacities (technocratic managerialism, oversight and accountability in the delivery of public goods and services, and efficient and responsive governance systems able to manage increasingly complex, interlinked socio-economic phenomena) (Bennett, 1991, pp. 215–16). Convergence, in this sense, is driven by functional socio-economic imperatives; that is, industrialization, modernization and urbanization in one place or time is more or less similar to that of other places and times, producing broadly similar policy problems and responses, administrative, governance and organizational outcomes (Starke et al., 2008). Policy convergence thus reflects the functional imperative of specific systems of social organization: modernization and urbanization require high density living, urban planning, network services such as water, sanitation, electricity and public transport, and social technologies such as policing, civil protection (fire brigades, ambulatory services) and so on. Policy formulation thus converges not because of political or ideological design but simply because the needs of a particular socio-economic system throw up similar sets of requirements.

Related theoretical approaches also arise from organizational theory and Weberian conceptions of bureaucratization and rationalization, in which bureaucracy as an organizational form produces increasing levels of organizational homogeneity in terms of 'structure, culture, and output' (DiMaggio & Powell, 1983, p. 147). The functional attributes sustaining modernization, in other words, have a 'levelling impact', where the 'logic of economism' (Ashley, 1983), the power of technology and the techno-scientific management of social and economic issues produce convergent tendencies in 'social structures . . . and public policies' (Ashley, 1983; Bennett, 1991, p. 216). As Levi-Faur notes, 'regulatory capitalism is a technological as much as a political order', a functional technology adopted as much because of its managerial efficiency (agentification, for example) as it is a conscious embrace of a system of political organization (2005, pp. 21–2).

A second, less functionalist, stream of theorizing stresses policy transfer as diffusion. The diffusion of ideas, policies and governance practices is not related to any specific socio-economic form of organization and thus the deterministic needs of a particular socio-political system, but rather from the simple spread and adoption of ideas. Unlike convergence approaches, policy diffusion is not an 'outcome but the flagship term for a large class of mechanisms and processes associated with a likely outcome' (Elkins & Simmons, 2005, p. 36). Policy diffusion can thus be thought of as both cause and effect: 'any pattern of successive adoptions of a policy' (as quoted in Elkins & Simmons, 2005, p. 36) but where the process of diffusion changes the probability of certain policies being

adopted. As Stang and Soule note, 'the adoption of a trait or practice in a population alters the probability of adoption for remaining non-adopters' (as quoted in Elkins & Simmons, 2005, pp. 37–8), either through processes of agenda-setting, norm diffusion or relational circumstances where a state's move to adopt a certain policy prompts other states to follow. Whatever the cause or mechanism of diffusion, the point is that diffusion is characterized as a reflexive process and assumes no destination or end point, prescriptive organizational form or policy design – it is, for the most part, happenstance and results from a series of individual decisions to adopt certain policies and practices for reasons specific to each policy actor but in a universe where the decisions of policy actors impact the subsequent choices and decisions of other policy actors. Elkins and Simmons define this as 'uncoordinated interdependence' (2005, p. 38).

This non-functional approach to policy diffusion captures a now dominant theoretical approach in the policy transfer literature. Indeed, mapping the cascading impact of 'uncoordinated interdependence' has given rise to an academic industry with scholars categorizing the multifarious mechanisms of diffusion. By one count, for example, upwards of 'thirty distinct species of diffusion' were identified, ranging from cascading norm diffusion (Carroll & Jarvis, 2013; Jakobi, 2012) to policy learning (Meseguer, 2005; Meseguer & Gilardi, 2009), policy networks and knowledge communities (Cao, 2010, 2012), relational and conditional diffusion processes associated with geography and space (Obinger et al., 2013), and policy thresholds and tipping points (Vormedal, 2012). But as Shipan and Volden observe, while in the last 50 years over 1000 research articles have been published addressing policy diffusion, the 'key findings and lessons remain opaque if not inconclusive' (2012, p. 788). Indeed, even the most elemental hypotheses of policy transfer through learning have produced a literature which Fabrizio Gilardi observes 'has fallen short of providing compelling support for learning hypotheses' (2010, pp. 650–1). Rather, '[t]here is agreement that competition, learning, and social emulation are the main drivers of diffusion, but empirical evidence usually is ambiguous and unable to discriminate convincingly among these different explanations' (Gilardi, 2010, p. 650; Voegtle et al., 2011).

The question thus remains: 'policies diffuse, but why?' (Gilardi, 2010, p. 650). More specifically, if the process of diffusion does not necessarily result in policy convergence but rather in a maze of different policy, governance, organizational and institutional outcomes, to what degree is the process of diffusion even significant? As Hall and Soskice (2013) observe, convergence overstates the case to which variation in forms of socio-political organization continues to be present. Rather than producing convergent outcomes, policy diffusion seems only important insofar as the ideas it generates are used in multiple ways, reconstituted in national or local policy domains and reformulated to suit specific domestic needs. Policy variation in the political economy of organizational types, policy design and governance systems thus still remains, albeit with some observable similarities (Hall & Soskice, 2001; see also Levi-Faur, 2006).

CONVERGENT DIVERSITY?

Various theorists have attempted to grapple with this apparent contradiction of convergence amid diversity. Pollitt (2001), for example, has emphasized the conceptual fragility of convergence, stressing that it is analytically unable to capture the complexity of policy

processes that occur at multiple levels, through multiple filters and actors, and across national and institutional spaces which produce a spectrum of convergent and divergent outcomes. Policy transfer and the language of convergence, in other words, often conceal ideological-political agendas in which agential actors are seeking to preserve or advance particular interests. The language of reform, increased government efficiency, deregulation or marketization, for example, might exist without an 'equivalent amount of action' in terms of implementation of these practices, or it may be embraced and celebrated in the rhetorical sense as political agendas to press for or resist change. Indeed, what might seem like the adoption of a similar institutional or policy design may in practice conceal fundamentally divergent on-the-ground institutional norms (Pollitt, 2001, p. 934).

Extending this notion, Goldfinch and Wallis (2010) stratify the idea of convergence along a continuum. On one end is the convergence of ideas (including paradigms, models, values and interpretations of policy approaches in terms of the relationship between state and market, the role of government and mechanisms of governance). In the middle is convergence around 'policy rhetoric', in which buzzwords, clichés and a specific language becomes the dominant discourse. Further along the continuum is convergence in legislation, organizational/institutional structures and policy design, in which organizational characteristics might be copied or transferred. On the other end is convergence around policy practice and implementation, in which styles of decision making, the methods of framing policy choices, and the ideas and values that inform them might be emulated and executed (Goldfinch & Wallis, 2010, pp. 1101–2). The point, of course, is that each level of potential convergence is subject to sets of differing actors and interests, socio-political environments, resource options, institutional legacies and broader socio-legal contexts that filter decisions, interpretations, and the broader play of ideas and ideological rationalities in terms of how they are interpreted, used and deployed. As Goldfinch and Wallis note, 'structures that seem similar at a distance may vary widely in practice' (2010, p. 1102).

Holzinger and Knill (2005) also address what they perceive as 'theoretical deficits in the study of convergence' by expanding its theoretical and analytical scope in order to understand both its multi-causality as well as the varying forms of convergence that are observed. Specifically, they differentiate between: (1) the degree; (2) the direction; and (3) the scope of convergence. The degree of convergence refers to the similarity of policy outputs (the policies adopted by a government) and the policy outcomes (the actual effects of a policy in terms of goal achievement). The direction of convergence indicates the extent to which convergence coincides with an upward or downward shift of the mean from time t1 to t2. The mean can refer both to policy output and policy outcomes. Finally, the scope of convergence focuses on the absolute number of policy domains that are actually affected by a certain convergence mechanism(s); for example, the total number of countries and policy areas which demonstrate some form of convergence.

In Holzinger and Knill's schema, convergence is disaggregated so that the adoption of similar policy instruments designed to realize specific goals may appear broadly similar across multiple domains, while the policy outputs, that is, the actual achievements or attainment of the policy goals, can show substantial variation. As a result, convergence and divergence can inform the substance of particular policy domains and their appearance at one and the same time (Holzinger & Knill, 2005; Strebel & Widmer, 2012).

The theoretical schemas of Goldfinch, Wallis, Pollitt, Holzinger and Knill thus caution

against the apparent convergence of policy formulation and governance practices amid a dynamic, complex and often contradictory set of processes. This might be why, for example, we can observe systemic convergence in post-Weberian governance practices – what Painter and Pierre note is the growing emphasis on market solutions to public management, where administrative reforms have often 'removed some of the policy capacity of the state by displacing political and institutional capacity downwards in the political system, outwards to agencies and NGOs, or upwards to transnational institutional systems' – at the same time as we see variation and non-convergence in the specific outcomes of these processes (Painter & Pierre, 2005, p. 1).

POLICY FORMULATION, EXOGENEITY AND CONVERGENCE

The three typologies addressed in this chapter cover a large literature that attempts to explain the global diffusion of post-Weberian governance systems and the relocation of sites of policy formulation, which may be contributing to convergence. While debates about the causality of exogeneity in policy formulation remain contested, ranging from theses of systemic transformation associated with the spread of capitalist relations of exchange, to more voluntaristic perspectives associated with ideational learning, institutional mimicry and the cross fertilization of ideas, few doubt the growing impact of exogeneity on policy formulation and that this will likely deepen in the years ahead (Marsh & Sharman, 2009; Meseguer, 2005). What perhaps is less apparent is the relationship of exogeneity to convergence, and the extent to which convergence is empirically significant. As this chapter has also attempted to highlight, the notion of convergence is analytically fragile and requires much deeper theorization and investigation. The efforts of authors such as Pollitt (2001), Goldfinch and Wallis (2010), Knill (2005) and Holzinger and Knill (2005), however, have begun this task, adding to the analytical agility of the concept and offering practical ways of disentangling convergence in policy design from that in policy outputs, policy impact or achievements. In doing so, some of the problems associated with apparent policy convergence amid observable differences in empirical outcomes are now better understood, contributing to an on-going effort to explore the increasing role of exogeneity on policy formulation and convergence.

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24. Behavioral aspects of policy formulation: experiments, behavioral insights, nudges
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INTRODUCTION

In the last few years, 'behavioral economics,' and, more generally, 'applied behavioral science' (as per Kahneman, 2012) have gained outstanding momentum among policy-makers. Several governments in developed countries have constituted 'behavioral insights teams' within their civil services, including the Nudge Unit in the UK Cabinet Office and the Office for Information and Regulatory Affairs (now the Social and Behavioral Sciences Team) in the USA; analogous initiatives have also been set up within the governments of Australia, Canada, Denmark, Finland, France, Israel, the Netherlands, New Zealand, Norway and Singapore (Sunstein, 2011; Dolan et al., 2012; Dolan & Galizzi, 2014a; Annala et al., 2015). Insights from the behavioral sciences have also attracted increasing attention by international institutions: the European Commission has set up a Foresight and Behavioural Insights Unit and a Behavioural Economics Team at the Institute for Health and Consumer Protection, both at the Joint Research Centre of the European Commission; the World Bank's 2015 World Development Report – titled *Mind, Society and Behavior* – addresses the psychological, social and cultural influences on decision-making and human behavior and the impact these have on development; and the Organisation for Economic Co-operation and Development (OECD) has promoted a series of high-level workshops on the applications of behavioral sciences to policy-making (http://www.oecd.org/gov/behavioural-economics.htm).

Two recent books have systematically discussed the applications of behavioral insights to public policy (Shafir, 2012; Oliver, 2013), and a number of articles have explored specific areas of policy applications, including savings and pensions (Thaler & Benartzi, 2004; Beshears et al., 2011), welfare (Bernheim & Rangel, 2009; Costa-Font, 2011) and health (Loewenstein et al., 2007, 2012; Volpp et al., 2011; Galizzi, 2014).

Policy-makers have indeed put forward an array of policies often referred to as 'behavioral policies,' encompassing randomized controlled trials, financial incentives, comparison web portals and nudges, among others. The interventions that fall under the behavioral umbrella in policy applications are, however, quite heterogeneous and diverse. It is often unclear to which aspect of a policy formulation the term 'behavioral' refers, and practitioners, policy-makers and researchers often use or assume quite different definitions of 'behavioral.'

There are two particular, and related, sources of potential misunderstanding in the behavioral aspects of policy formulation. First, it is often not clear whether the 'behavioral' attribute refers to the methods of research or the insights obtained from the research (or to both) – is an intervention based on evidence from a randomized controlled trial automatically a behavioral policy?

Second, how closely is the conceptual core of these disparate 'behavioral' policies related to genuine insights from behavioral science? In other words, what 'behavioral' insights really are behavioral?

This chapter attempts to conceptually dissect the two sources of misunderstanding in the behavioral aspects of policy formulation by building on, and generalizing from, the discussion in Galizzi (2014) on behavioral policies in the domain of health.

The chapter first provides an operational definition of behavioral policy formulation and of 'behavioral' economics as opposed to 'conventional' economics. To address the two sources of possible misunderstanding, a distinction is immediately made between insights and methods.

On the methods, the current emphasis on randomized controlled trials (RCTs) is related to the broader discussion on the various types of randomized controlled experiments (RCEs) in economics, political sciences and social sciences in general.

On the insights, the focus is on the nature and content (rather than the methodology) of behavioral policy formulation. The chapter proposes a taxonomy consisting of five different clusters of behavioral policy formulation instruments: preferences-based policies; information-based policies; financial incentives; regulation-based policies, including tax- and subsidy-based policies; and 'nudges.'

The discussion then focuses on to what extent these five clusters of supposedly behavioral policy formulation instruments depart from the conventional economics view of individual behavior and decision-making. It turns out that some of the policy instruments that, in the public debate, are typically considered to be behavioral in fact have limited behavioral content, and are instead quite well-established tools in the conventional economics toolbox.

The rest of the chapter is structured as follows. The next section defines behavioral policy formulation, behavioral policy and behavioral economics. The third section deals with the question of 'behavioral' methods and insights. The fourth section defines preferences-based policies, information-based policies, financial incentives, regulation-based policies, including tax- and subsidy-based policies, and nudges. A discussion in the final section concludes.

A DEFINITION OF 'BEHAVIORAL' POLICY

The behavioral aspects of policy formulation are closely interlinked with what the literature calls more broadly 'behavioral policy,' or, equivalently, 'behavioral public policy' (Shafir, 2012; Oliver, 2013). Behavioral policy is thus usually defined as a policy intervention that is directly inspired by, and designed on, the principles of behavioral research.

But there is no one precise disciplinary 'label' to attach to 'behavioral' research. Behavioral researchers are essentially social and cognitive psychologists, as well as a 'growing minority of economists – behavioral economists' (Kahneman, 2012, p. ix). Daniel Kahneman proposes 'applied behavioral science' as a common label for the shared activities, methods and interests by psychologists and behavioral economists. A growing number of leading institutions, in both the academic and policy arenas, have now adopted this comprehensive definition of 'behavioral science' as an interdisciplinary area of research bringing together insights and methods from social and cognitive

psychology, behavioral and experimental economics, neuroscience, philosophy, marketing and consumer behavior, organizational behavior, sociology, political science, anthropology, biology, medical and health sciences, happiness and well-being research, among others.

In the popular press, as well as among most policy practitioners, however, there is a tendency to reduce behavioral science to one of its sub-components, behavioral economics. There are several possible reasons for this, including the fact that, traditionally, economics has had a stronger influence and traction on policy-making and practice than the other social sciences. Another reason may be that, especially in recent decades, conventional economics as a discipline has proposed itself as a comprehensive, structured theory that could be applied to virtually any social phenomena. Psychology, in contrast, is typically represented as a set of ad hoc theories applicable to specific issues and phenomena. A further reason may be related to the 'imperialistic' tendency of conventional economics research to expand into the domains of other disciplines such as political science, history and sociology (Baron & Hannan, 1994; Lazear, 2000).

Whatever the reason for the tendency to reduce behavioral science to its behavioral economics component, this synecdoche then requires us to define behavioral economics. A definition is provided by the Russell Sage Foundation's influential Round Table for Behavioral Economics, established in 1992 to 'devise activities designed to advance this new interdisciplinary field [of behavioral economics].'

The Round Table defines behavioral economics as follows:

> Behavioral economics uses facts, models, and methods from neighboring sciences to establish descriptively accurate findings about human cognitive ability and social interaction and to explore the implications of these findings for economic behavior. The most fertile neighboring science in recent decades has been psychology, but sociology, anthropology, biology, and other fields can usefully influence economics as well. (Russell Sage Foundation, 2016)

In essence, behavioral economics is thus defined as the application to 'conventional' economics of insights from cognitive and social psychology, as well as of cognate disciplines like biology, anthropology and sociology, to improve the understanding of economic behavior and decision-making.

This definition implicitly defines behavioral economics as departing from, and somehow challenging, the traditional or conventional view of economics, which is essentially based on the assumption of perfectly 'rational individuals who engage in maximizing behavior' (Lazear, 2000, p. 99). In its most stylized and popularized form, the conventional economics view relies on four main conceptual 'pillars':

1. Preferences. We have a complete and comprehensive set of preferences – spanning over all possible factors affecting our utility and well-being – and a clear, conscious and consistent representation of those preferences: our preferences are thus stable both across domains/situations and over time.
2. Information. Preferences drive our behavior and decision-making: when we decide, we process all available information, we rationally 'optimize' by calculating the costs and benefits of different choices or courses of actions, and deliberately pick the one that most closely matches our preferences.

3. Incentives. Our rational decisions and behavior best serve our own interests and maximize our own utility when interacting with others in markets: in equilibrium, markets aggregate individual costs/benefits values and translate them into prices.
4. Regulation. Since we always rationally act in our own best interests, public intervention is needed only when markets fail to correctly translate some costs/benefits values into prices; this typically occurs in the case of market failures such as 'externalities' where individual values do not incorporate effects on others' costs or benefits.

Conventional economics approaches essentially stick to these four conceptual pillars, while behavioral economics approaches relax some of these assumptions in light of evidence suggesting that, for instance, we may not always act on our own best interests, or we may only try to optimize.

DOES 'BEHAVIORAL' REFER TO METHODS OR INSIGHTS? RANDOMIZED CONTROLLED EXPERIMENTS AND 'BEHAVIORAL' POLICY

The first source of potential misunderstanding in the behavioral aspects of policy formulation relates to the fact that practitioners and policy-makers tend to define a policy instrument under the behavioral umbrella merely because it entails the use of randomized controlled trials (RCTs) as a method of generating evidence.

Someone who attended a conference organized by the European Commission's (EC) Directorate General for Health and Consumer Affairs, for instance, could come away with the impression that the key feature of the EC's various behavioral insights teams is that they pre-test possible policy interventions using controlled experiments involving a treatment and a control group (European Commission DG SANCO, 2013). Probably the most influential report by the UK's Behavioural Insights Team when it was still within the Cabinet Office illustrates the need to conduct RCTs to develop public policy (Haynes et al., 2012).

This emphasis on the use of RCTs as a fundamental defining criterion for 'behavioral' policies calls for three conceptual clarifications.

First, the use of RCTs has to do with the methods employed to gather evidence for policy purposes, not with the content and insights of such evidence. RCTs are certainly not a distinguishing feature only of behavioral policy, behavioral science or behavioral economics. Outside the context of policy decision-making the use of RCTs is far from novel. All modern evidence-based science, medicine and pharmacology are based on RCTs, starting from the pioneering work on scurvy by James Lind in 1747 to the first published RCT in medicine by Austin Bradford Hill and colleagues in 1948. Thanks to the groundbreaking methodological contributions of Charles Sanders Peirce, Jerzy Neyman, Ronald A. Fisher and others, modern science has long since considered the experimental method as 'the' scientific method. Even in the policy decision-making context, the idea of using versions of the RCTs for policy applications has been advocated for several decades (Rubin, 1974, 1980a, 1980b, 1986; Ferber & Hirsch, 1978, 1982; Hausman & Wise, 1985; Heckman, 1992; Burtless, 1995).

What is relatively novel in the policy formulation arena is that there is currently, probably for the first time ever, a diffuse and open-minded interest by decision-makers and

practitioners in rolling out rigorous tests of envisaged policy interventions prior to their full-scale implementation (Ludwig et al., 2011; Dolan & Galizzi, 2014a).

Second, while the term RCT is now widely en vogue in policy circles, it is often used in a quite particular way which deserves a further set of methodological clarifications. To start with, in the current policy debate, the term RCT is explicitly or implicitly used to typically denote large-scale experiments conducted with entire organizations (e.g. schools, hospitals, villages) without necessarily involving the stakeholders in those organizations to explicitly express their views or their consent in the envisaged experiments. This is a major conceptual difference with respect to RCTs in medicine or pharmacology, where subjects are always explicitly asked to give informed consent prior to taking part in RCTs, with obvious but profound ethical and political implications. The term RCT is therefore conceptually inappropriate and practically misleading in a policy formulation context, as it conveys the impression that subjects have been made aware of being part of a policy experiment and have been consulted and given their consent to it, when actually this may not be the case in many applications of experiments conducted for policy purposes (including those run by the various 'behavioral insights teams').

Furthermore, in the current policy debate, RCTs (as intended in the above sense) are often improperly contrasted with other empirical methods used to gather evidence to inform policy-making.

It is true that only well-designed and well-run randomized controlled experiments (RCEs) provide an unbiased estimate of the average treatment effect (that is, in empiricists' jargon, are internally valid). Because of the well-known issue of sample selection bias, in fact, it is only by randomly assigning subjects to a treatment or control group that one can identify the causal effect of a policy intervention on an observed outcome (Heckman, 1979; Burtless, 1995; Angrist & Pischke, 2009; List, 2011; Gerber & Green, 2012). This is why the alternative policy evaluation methods that do not use randomization (Ashenfelter, 1978; Lalonde, 1986) then need to overcome this 'original sin' in their design by exploiting 'naturally occurring' experiments (Ashenfelter & Krueger, 1994; Rosenzweig & Wolpin, 2000), or resorting to identification strategies such as instrumental variables (e.g. Angrist & Krueger, 1991, 2001; Angrist & Imbens, 1995; Angrist et al., 1996); propensity score and other matching methods (Rubin, 1973; Rosenbaum & Rubin, 1983, 1984; Heckman et al., 1998; Imbens, 2004); difference in differences (e.g. Card, 1992, 1996; Card & Krueger, 1994, 2000); or regression-discontinuity designs (e.g. Trochim, 1984; Angrist & Lavy, 1999; Hahn et al., 2001; Cook, 2008; Imbens & Lemieux, 2008).

On the other hand, RCTs (as intended in the above sense) are only one specific and very peculiar type of experiment. It is useful to refer here to the influential taxonomy of experiments in economics, and more broadly in social sciences, originally crystalized by Harrison and List (2004): conventional lab experiments involve student subjects, abstract framing, a lab context and a set of imposed rules; artefactual field experiments depart from conventional lab experiments in that they involve non-student samples; framed field experiments add to artefactual field experiments a field context in the commodity, stakes, task or information; and, finally, natural field experiments depart from framed field experiments in that subjects undertake the tasks in their natural environment, and subjects do not know that they take part in an experiment. The main idea behind natural field experiments is von Heisenberg's 'uncertainty principle' in physics: the mere act of observation and measurement necessarily alters what is being observed and measured. In key areas

for policy formulation, such as health, the environment or ethical and pro-social behavior, for instance, there are potential randomization biases (that is, merely knowing that random assignment is in place causes the type of persons participating in a randomized study to differ from participants in other studies: Kramer & Shapiro, 1984; Heckman & Smith, 1995); experimenter demand effects (that is, participants change behavior due to cues about what represents 'appropriate' behavior for the experimenter: Bardsley, 2005; Levitt & List, 2007a, 2007b; Zizzo, 2010); Hawthorne effects (that is, simply knowing they are part of a study makes participants feel important and improves their effort and performance: Franke & Kaul, 1978; Adair, 1984; Jones, 1992; Levitt & List, 2011); and John Henry effects (that is, participants who perceive that they are in the control group exert greater effort because they treat the experiment like a competitive contest and they want to overcome the disadvantage of being in the control group: Campbell & Stanley, 1963; Cook & Campbell, 1979).

Other, more recent, typologies of RCEs are online experiments (Horton et al., 2011) conducted, for instance, using Amazon's Mechanical Turk app (MTurk) (Paolacci et al., 2010; Horton et al., 2011); virtual experiments on virtual reality settings (Fiore et al., 2009); and lab-field experiments that consist of a first-stage intervention under controlled conditions (in the lab) linked to a naturalistic situation (in the field) where subjects are not aware that their behavior is observed. Lab-field experiments have been used to look at the unintended 'behavioral spillover' effects of interventions (Dolan & Galizzi, 2014b, 2015; Dolan et al., 2015) or the external validity of lab-based behavioral measures (Galizzi & Navarro-Martinez, 2015), and are part of the growing efforts to bridge the gap between the lab and the field, especially in policy areas like health that are inherently challenging from a methodological perspective (Hennig-Schmidt et al., 2011; Kesternich et al., 2013; Hennig-Schmidt & Wiesen, 2014).

RCT is therefore a vague and misleading term to use for experiments for policy formulation purposes as it does not convey key information on the exact nature and typology of the experiment. There is not one single type of experiment for policy formulation purposes; rather, a broad spectrum of different types of experiments spanning from the lab to the field can prove useful. As RCEs, all of the experiment types along the Harrison and List (2004) spectrum provide unbiased estimates of the average treatment effect. This continuum of RCEs, therefore, is the systematic, and methodologically appropriate, generalization of what is popularly referred to as RCTs.

It is also worthwhile emphasizing that there is no consensus on whether lab or field experiments are superior: both have strengths and weaknesses, and their relative merits have been systematically discussed elsewhere (Loewenstein, 1999; Starmer, 1999a, 1999b; Smith, 2003; Harrison & List, 2004; Bardsley, 2005; Guala, 2005; Levitt & List, 2007b, 2008; Bardsley et al., 2009; Falk & Heckman, 2009; Camerer, 2011; Harrison, 2013; Dolan & Galizzi, 2014a; Kagel, 2015). Briefly, lab experiments allow for high internal validity because of their ability to tightly control the environment and frame, minimize confounding factors, closely simulate conditions of theoretical models, and replicate past experiments. Furthermore, they provide insights into possible patterns prior to moving into the wild, they uncover the mechanisms underlying decisions and behavior, and they require significantly fewer financial, time and logistical resources than field experiments. Field experiments, on the other hand, generally enhance the external validity of experimental results because observations are made with subjects, environments, situations,

tasks, rules and stakes which are closer to the ones occurring in the real world (Brookshire et al., 1987; Galizzi & Navarro-Martinez, 2015; Kessler & Vesterlund, 2015). Field experiments, however, come with lesser control and with several other limitations when used for policy purposes (Harrison, 2014). Moreover, they are inherently more difficult, if not impossible, to replicate. This is clearly a major limitation given the increasing attention to the replicability of experimental results in psychology, economics and social sciences (Burman et al., 2010; Miguel et al., 2014; Open Science Collaboration, 2015).

On a related note, it is worth noting that the way in which RCTs are sometimes contrasted to statistical or econometric analysis is also misleading. In fact, running any of the RCEs along the Harrison and List (2004) spectrum is just the first step of the data collection process, which allows the behavioral scientist to then conduct in-depth econometric analysis of experimental data. There is no reason why behavioral scientists interested in 'what works' should only superficially look at the average treatment effect across the control and the treatment groups in an experiment, and not delve deeper into the behavioral nuances and causal mechanisms. Indeed, as witnessed by the burgeoning field of 'behavioral econometrics' and 'experimetrics,' RCEs and econometric analysis are complementary, not substitute, methods (Andersen et al., 2010; Harrison et al., 2015; Moffatt, 2015).

The third and last methodological clarification on 'behavioral' methods relates to the often proclaimed superiority of RCTs in terms of generalizability – the question of what other populations, settings, contexts or domains the findings from an experiment can be generalized to (Al-Ubaydli & List, 2015).

There are three conceptually distinct threats to generalizability. The first threat comes essentially from participation bias. Unlike natural field experiments, conventional lab experiments (but also artefactual and framed field experiments, and, as noted above, RCTs) recruit participants through an explicit invitation to take part in an experiment. As a result, there is bias not only because the potential participants – university students – self-select into universities but also because subjects who choose to participate in experiments may be inherently different in their underlying characteristics from subjects who choose not to take part. Policy-makers should therefore be aware that, because of the participation bias, even if the initial sample of subjects is indeed representative of the target (or the general) population, the resulting sub-sample of actual respondents may not be. Students participating in lab experiments, for instance, have been found to be more curious (Slonim et al., 2013) and more motivated by financial incentives (Krawczyk, 2011; Charness et al., 2013).

The second threat comes from the fact that the environment, context and frame of the experimental decisions and tasks in the lab may not be representative of real situations encountered by subjects in natural settings. This limitation can be overcome by redesigning tasks and contexts to more closely match naturalistic situations that subjects are more familiar with in real life – that is, to design framed field experiments in the sense of Harrison and List (2004) (e.g. Harrison et al., 2007; Harrison & List, 2008).

The last threat to generalizability is that students are, clearly, a peculiar sample of experimental subjects that is not representative of the general population (Enis et al., 1972; Cunningham et al., 1974). For instance, students act less cooperatively and trustfully in social preferences games (Bellemare & Kroger, 2007). If students behave differently, then, an extrapolation of their behavior to the general population would be biased even after controlling for socio-demographics (Levitt & List, 2007a; Exadaktylos et al., 2013).

To overcome these limitations, a small but growing number of researchers have started running artefactual field experiments with representative samples of the population rather than just students (Andersen et al., 2008, 2014; Bellemare et al., 2008; Galizzi, 2012; Galizzi et al., 2016a, 2016b).

A TAXONOMY OF POLICY FORMULATION INSTRUMENTS

A second source of potential misunderstanding in the behavioral aspects of policy formulation is concerned with the nature and insights, rather than the methods, of the behavioral policies. When formulating policies, researchers and decision-makers are ultimately interested in knowing which type of policies work in effectively changing behavior. Rather than resolving the fundamental issue of whether the assumptions of conventional or behavioral economics are correct at a general level, economists and social scientists are increasingly embracing a so-called pragmatic approach (Galizzi, 2014; Bhargava & Loewenstein, 2015; Chetty, 2015; Laibson & List, 2015). In essence, this approach considers behavioral economics as a natural progression of conventional economics, rather than a fundamental challenge to it, and thus combines insights from both conventional and behavioral economics that have proved to work effectively for public policy purposes. To better understand the conceptual background underpinning such a pragmatic approach to behavioral insights, it is important to explicitly describe the extent to which different behavioral policies actually depart from the conventional economics paradigm.

A taxonomy is proposed of five different clusters of policy formulation instruments: preferences-based policies; information-based policies; financial incentives; regulation-based policies, including tax- and subsidy-based policies; and nudges. Before going into the details of each class of policies, Figure 24.1 graphically summarizes how the different clusters of policy formulation instruments relate to, or depart from, the conventional economics model.

In the framework, preferences-based policies are directly related to the first pillar of the conventional economics model, and for this reason one can categorize them under the conventional rather than the behavioral economics umbrella. Similarly, it is possible to closely associate a specific pillar of conventional economics with information-based policies (pillar 2), financial incentives (pillar 3), and regulation-based policies, including tax- and subsidy-based policies (pillar 4).

Informational policies and financial incentives can also be inspired by behavioral economics and behavioral science. In that case, these behaviorally inspired information-based policies and financial incentives can be grouped under the 'behavioral' umbrella.

According to the above framework, policies based on nudges substantially depart from conventional economics, as they openly challenge its pillars 1–3. Nudges can thus be viewed as a cluster of policy formulation instruments that are most closely and comprehensively inspired by behavioral science research. The following sub-sections review the rationale beyond each element of the taxonomy in greater detail.
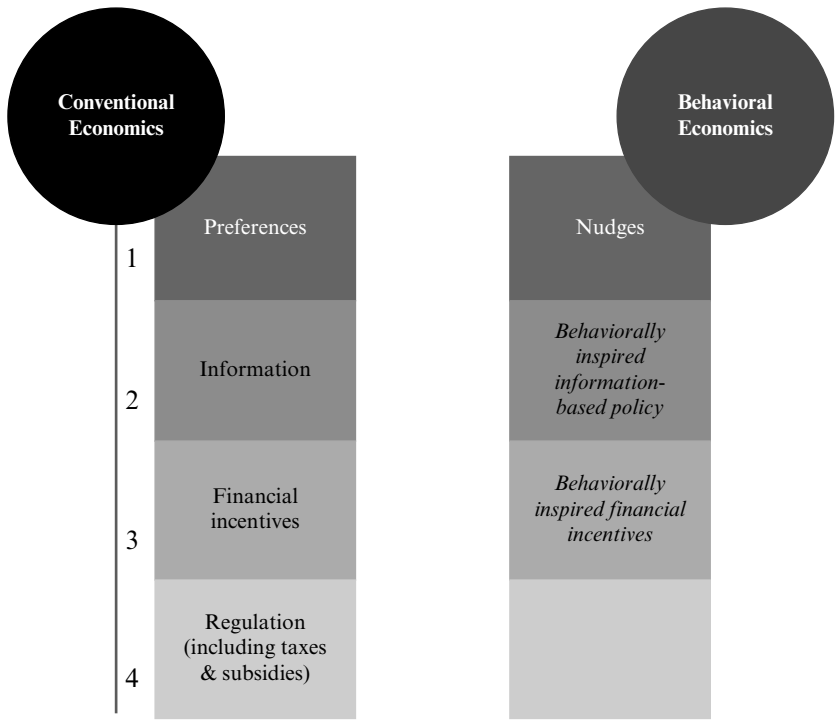
Figure 24.1   A taxonomy of policy formulation instruments

Preferences-based Policies

The first cluster of policy formulation instruments is what can be called preferences-based policies. These are essentially based on the idea of providing citizens with broad sets and menus of choices from which they select their favorite option. The broader these sets of choices are, the larger the set of possible profiles of preferences that could be satisfied.

In the US health policy context, for example, under the George W. Bush administration, the Medicare Part D website was launched in 2006 to help seniors choose among a wide variety of different drug plans provided by private healthcare companies. Bush explained his reform of Medicare Part D by saying, 'The more choices you have, the more likely it is you'll be able to find a program that suits your specific needs' (White House, 2006).

Similarly, in October 2013 the so-called Obamacare reform launched the exchange portal https://www.healthcare.gov/ to help the 50 million US citizens without health insurance to compare, in a systematic way, the profiles of the healthcare insurances in 36 US states. Similar policies have been implemented, mainly in the USA and the UK, in the form of internet comparison and ranking websites in several policy formulation areas, such as health (hospitals and doctors rating websites: Galizzi et al., 2012), education (school ratings), and pensions and savings.

While more choice is almost always good, especially when it fosters competition on the supply side, as in the Obamacare example, there is no genuine behavioral insight in these policies. This cluster of policies is actually soundly grounded on conventional economics:

they assume that people have clear preferences over clinical treatments, diagnostic tests, insurance and pension schemes, schools and so on, and that a broader set of choices will help them find their most preferred option. This is fully consistent with conventional economics (pillar 1).

From a behavioral science perspective, the potential benefit of broadening the choice set of options can be partly, or completely, offset by the paralysing effect of having too many options among which to choose. As the 'tyranny of choice' literature shows, having more options often leads to worse, rather than better, choices, because making choices is effortful, tiring and can generate anxiety (Iyengar & Lepper, 2005; Salecl, 2010). This is also the reason why we often seek advice and suggestions; imitate what others do or just follow the crowd; or stick to default options (Thaler & Sunstein, 2008).

The second, methodologically more profound consideration is that it is not easy to demonstrate a rigorous link between larger choice sets and better decisions or behavior. Empirically answering this question entails facing the 'curse' of the 'revealed preferences' argument in economics. In practice, it is often impossible to empirically identify the effect of broader choice sets on individual behavior, simply because economists traditionally assume that behavior is just the manifestation of underlying preferences. Therefore, as in most cases we do not directly observe preferences and we only observe behavior, any type of behavior, even the most extravagant, can be easily justifiable in light of some latent, possibly 'exotic' preferences (Loewenstein, 2007).

From a conceptual point of view, the only way to rigorously test the effectiveness of preference-based policies would be to directly measure individual preferences prior to the policy intervention and then to directly observe decision-making and behavior under different conditions where the number of options in the choice sets is systematically manipulated. Rigorous evidence on this point is scarce in most policy formulation contexts. Galizzi (2014) further illustrates the conceptual challenges and practical intricacies of this approach for the health policy domain.

Information-based Policies

Proceeding down the list, the next cluster of policy formulation instruments is centered on the idea of providing information to citizens and consumers to enable them to formulate better decisions.

Information-based policies are quite firmly grounded on conventional economics: accessing more, or better, information enables us to make better decisions and plans (pillar 2). It is worth mentioning three considerations about the effectiveness of information-based policies. First, the bulk of research in behavioral science suggests that merely providing more information is generally effective in raising awareness, but does not necessarily lead to significant and sustained change in behavior. Second, providing more information can actually trigger unintended spillover effects (Dolan & Galizzi, 2015). Third, policy interventions seem to be particularly effective when the type and design of the information provided is directly inspired, and 'supercharged,' by genuine insights from the behavioral science (e.g. the 'informational nudges' in Bhargava & Loewenstein, 2015). Galizzi (2014) further illustrates these considerations in the health policy context.

Financial Incentives

Next in the list are those policy formulation instruments based on financial incentives. A premise is in order here. We consider in such a cluster only the policies based on the idea of providing monetary incentives conditional to a specific change in behavior, what economists often called Conditional Cash Transfer (CCT): for instance, paying smokers £100 when they quit smoking, or giving £50 on completion of a professional development course.

It is important to distinguish these policies from other related policy instruments: providing monetary incentives based on a predefined action or change in behavior makes the financial incentives inherently different from subsidies or taxes.

Taxes and subsidies, of course, aim to (and are often able to) cause changes in behavior. But they do so by directly interfering with market prices. Financial incentives, on the contrary, do not alter market prices.

Following the above conceptual framework, however, financial incentives rely on limited behavioral insight, and are not a distinguishing feature of behavioral economics. Incentives are actually one of the main hallmarks of conventional economics, being directly related to pillar 3 of the above framework. Economics as a social science can actually be defined largely as the study of incentives and their impact on changing behavior: according to the 'basic law of behavior' (Gneezy et al., 2011), once a well-designed incentive is introduced, behavior should change in the envisaged direction.

There is strong evidence that purely monetary conditional incentives tend to work in the short run, but mixed evidence on whether they are capable of leading to sustained changes in behavior, especially after they are removed.

There is also compelling evidence that financial incentives work effectively when their design is directly inspired, and 'supercharged,' by genuine insights from behavioral sciences. In particular, incentives work when, in coherence with the 'asymmetric paternalism' approach by Camerer et al. (2003) and the 'libertarian paternalism' approach by Thaler and Sunstein (2003, 2008), they are designed around human biases, in the attempt to help people to change behavior. From this perspective, 'behaviorally' supercharged financial incentives can be seen as an application of the 'nudging' policy approach, which is directly inspired by behavioral economics (see sub-section 'Nudges' below).

An archetypical example of these behaviorally 'supercharged' incentives are those used for healthier behaviors by George Loewenstein, Kevin Volpp and colleagues at the Centre for Health Incentives and Behavioral Economics (CHIBE) (Loewenstein et al., 2007, 2012; Volpp et al., 2011). In their set of experiments on weight loss, for instance, incentives proved to work when they were designed to account for, and lever on, our biases. These include the tendencies to over-evaluate small probabilities (e.g. a 10 percent probability of paying $100, instead of a 100 percent probability of paying $10); attach a greater value to losses than gains of the same amount (e.g. by asking subjects to put their own money down in deposits that are then matched 1:1, and then deducting money from these deposits any time subjects fail to change behavior, playing on subjects' aversion to lose their deposit); be over-optimistic about personal achievements (e.g. when asked to put money down as a deposit, most people believe they will succeed in losing weight and do put down the money); appreciate immediate feedback on our actions (e.g. by providing immediate, personalized and punctual feedback by text messages for both rewards and

punishments); regret the actions we did not take in the past (e.g. by informing subjects about the money they could have earned if they had indeed changed behavior any time they did not). Galizzi (2014) illustrates these points further in the broader area of financial incentives in health.

A relatively underexplored, but highly promising area for policy formulation purposes is the study of the optimal combination of financial incentives and 'nudges' (Dolan & Galizzi, 2014b; Chetty, 2015). A further area of interest for policy formulation purposes is related to the unintended consequences of financial incentives, and leads to the new, promising field of 'behavioral spillovers' of policy interventions (Dolan & Galizzi, 2014b, 2015; Dolan et al., 2015).

Regulation-based Policies, Including Tax- and Subsidies-based Policies

Next on the list are policy formulation instruments based on regulation, including those based on taxes and subsidies. It is easy to argue that these policies are firmly grounded on conventional economics, in particular on pillar 4. They are essentially interventions related to, or directly inspired by, the long and noble history of market regulation in public economics; that is, in the attempt to overcome market failures, the policy-maker directly intervenes in markets to realign market forces and prices.

The most typical example of market failures in practice are 'externalities' (Pigou, 1920), when markets fail to take into account the overall social costs and benefits of goods and services and do not adequately reflect them in prices. The classic public economics instruments to correct such externalities are taxes and subsidies, for instance, carbon taxes levied on carbon- and oil-based energy resources.

It is well known from public economics that regulations, taxes and subsidies are, conceptually, the most suitable forms of policy interventions to address and correct externalities, and successful real-world examples of implementation of these policies is abundant in both developed and developing countries. The point here is that, although these interventions are clearly inspired by conventional rather than behavioral economics, there is an immense potential to combine these traditional but effective public economics tools with new insights from behavioral science. For instance, how can we design specific schemes around well-known human biases so that we can 'supercharge' taxes and subsidies with behavioral insights to enhance their long-term effectiveness? This seems one of the most exciting and promising areas where more experimental evidence is currently needed in behavioral public policy.

Nudges

Finally, some 'behavioral' policies are inspired by the idea of 'nudging' (Thaler & Sunstein, 2008). 'Nudges' essentially consist of changes in the decision environment (the so-called 'choice architecture'), designed on the basis of behavioral evidence, to trigger changes in behavior occurring at an automatic, or unconscious, level. Among many possible examples, there is the well-known case of changing the default option in organ donation statements (Thaler & Sunstein, 2008). Other examples in the health context are the behavioral interventions to nudge healthy eating: simply relocating fruits and vegetables in more salient spots in high school cafeterias significantly increases their consumption

(Hanks et al., 2012), while serving food on small plates or on plates that have a high color contrast with the served food (e.g. white plates for spaghetti with tomato sauce) leads to significantly lower food intakes (Wansink & Van Ittersum, 2006; Van Ittersum & Wansink, 2012).

Unlike the other behaviorally inspired policies discussed above, nudges do not involve any financial incentives or release any new piece of information; they merely change the environment where choices and actions are taken.

This is quite a broad category that encompasses a vast range of policy instruments levering on human decision biases such as the ones introduced above and many others: status quo and default bias, loss aversion, procrastination, sunk cost fallacy, halo effects, anchoring, overweighting of small probabilities, illusion of control, availability bias, saliency and framing effects, present bias, confirmation bias, adaptation and the ostrich effect, to name just a few (Thaler & Sunstein, 2008; Kahneman, 2011).

Nudges are the cluster of policy formulation instruments that are most genuinely and firmly grounded on insights from the behavioral sciences. For this reason, 'nudging' interventions should be regarded as the only group of policy formulation instruments that comfortably sit under the umbrella of behavioral, rather than conventional, economics. They are, in fact, essentially based on two findings by behavioral economics and applied behavioral science.

First, a great part of human behavior is automatic and non-conscious. This is consistent with the idea that our judgment and decision-making are informed by two cognitive interacting systems: a fast and automatic (non-conscious) system ('System 1') and a slow and deliberative (conscious) system ('System 2') (Chaiken & Trope, 1999; Kahneman, 2003, 2011).

Second, related to this, we often make mistakes and errors in judgment and decision-making and fall prey to a broad range of biases and influences from environmental cues, and to a large extent may even be unsure of what we actually want. According to the behavioral view, our judgments and preferences are malleable in that they can be affected and shifted, even substantially, by subtle differences in the social environment, the decision frame, and the cognitive or visual representations of alternatives. To the extreme, our evaluations and preferences are constructed on the moment in a given situation, and are thus affected by changes in the choice environment (Lichtenstein & Slovic, 2006). Such shifts and changes can actually occur even when we are not consciously aware of it.

Both ideas are at odds with the conventional economics idea that we make rational deliberations about what is optimal given our stable set of preferences, and we then undertake a full and coherent plan of action. In this view, in the long run our actions and decisions thus fluctuate around, and reveal, our stable set of preferences, so that we do not make systematic errors and biases. The very core of conventional economics as summarized in pillars 1–2 is about rational deliberative decision-making.

It is mainly on this ground that nudging policies challenge the conventional economics view. Nudges, however, do not interfere with the sets of options available to individuals, nor with market mechanisms, and do not distort the behavior of those who act rationally. Nudges are thus less intrusive in the market mechanisms than taxes or subsidies.

Under the perspective of the degree of 'intrusiveness' of policy formulation instruments, it is possible to establish a parallel between taxes and subsidies, on one side, and nudges, on the other. Taxes and subsidies are levied to deal with externalities and market

failures. If the aim of the policy is indeed to correct these externalities, taxes and subsidies seem the most appropriate conventional economics tools.

Nudges, on the other hand, are best employed to deal with 'internalities' (Galizzi, 2014; Bhargava & Loewenstein, 2015). Internalities are essentially costs that we impose on ourselves, and that we do not (sufficiently) take into account in our decisions (Herrnstein et al., 1993). These internalities' costs originate from our own errors and failures in judgment and decision-making, rather than from market failures.

Internalities are perhaps a more fundamental source of flaws and failures than externalities, as they pre-exist to markets and economic institutions. They also represent a bigger challenge as they cannot be removed by conventional policy formulation instruments such as taxes and subsidies. In principle, the internal failures and biases in human decision-making likely survive even when externalities are addressed by direct market intervention.

Because the application of nudges to policy formulation is relatively recent, it is perhaps premature to draw conclusions on the effectiveness of nudges based on systematic reviews of the evidence (Marteau et al., 2011; Loewenstein et al., 2012). The picture gathered by different streams of literature, however, is quite clear in suggesting that even subtle changes in the 'choice architecture' can lead to significant changes in behavior in a variety of policy formulation domains. An interesting area of investigation for policy formulation purposes is related to the recent evidence on the unintended 'behavioral spillovers' of nudges (Dolan & Galizzi, 2015; Loewenstein et al., 2015).

CONCLUSIONS

There is an increasing interest in applying behavioral insights to policy formulation challenges. Researchers and policy-makers have recently discussed a range of diverse policy formulation instruments whose terms are often used interchangeably and described as 'behavioral.'

We provide a critical review of two intertwined conceptual challenges related to these behavioral policies. We start by making a distinction between two main ingredients of so-called 'behavioral' public policies, namely methods and insights.

We then argue that what is often indicated as an inherent 'behavioral' aspect of policy formulation is simply the use of the experimental method to assess the effectiveness of a policy intervention. On this respect, we argue that, while the experimental method represents quite an innovation in the policy formulation arena, it is not a unique feature of 'behavioral' policies nor of behavioral economics.

We also argue that reducing the use of the experimental method for policy purposes to the so-called RCTs is both conceptually misleading and over-simplistic, since it overlooks the richness of the toolbox of different typologies of RCEs spanning the spectrum between the lab and the field in the sense of Harrison and List (2004).

We then argue that to assess the real behavioral component of a behavioral policy formulation, we should pay close attention to what extent the policy is inspired by genuine insights from the behavioral sciences. To achieve this, we propose a taxonomy to classify policy formulation instruments in five clusters: preferences-based policies; information-based policies; financial incentives; regulation-based policies, including tax- and subsidy-based policies; and nudges.

It is possible to look at these five classes of policy formulation instruments in terms of how far away they move from conventional economics. Policy formulation instruments aiming to provide broader sets of choices, more information, financial incentives, or to use taxes and subsidies (the first four 'clusters') are closer in their conception to conventional than behavioral economics.

Policy formulation instruments based on the nudging approach are directly inspired by insights from behavioral economics, although behavioral insights have also been applied to the design of information-based policies and financial incentives, and in the near future can be fruitfully combined with regulation-based policies.

While policy formulation instruments genuinely inspired by behavioral economics can successfully address internalities failures, they are unlikely to effectively deal with externalities and market failures that are better addressed by conventional economics interventions, such as taxes, subsidies and other forms of regulation. There is, however, widely unexplored potential to enhance the effectiveness of regulatory schemes using insights genuinely inspired by the behavioral sciences.

We conclude with two main considerations that highlight two parallel complementarities in the behavioral aspects of policy formulation, the first related to behavioral methods, the second to behavioral insights.

On methods, although RCEs are not a distinguishing feature of behavioral economics or behavioral policy formulation, their growing employment by policy-makers should be welcome for formulating, testing, assessing and fine-tuning policy interventions. In particular, the systematic use of a broad spectrum of complementary RCEs in the lab and the field should be advocated as a powerful approach for finding out what works and does not work for policy formulation purposes, and for innovatively integrating the often detached phases of policy evaluation, cost-effectiveness analysis, subjective well-being measurement and welfare analysis (Dolan & Galizzi, 2014a; Harrison, 2014; Chetty, 2015). In close association with econometric analysis and through innovative 'behavioral data linking' designs, such a flexible toolbox of complementary experiments can also be combined with the fast-growing wealth of survey data, administrative records, online panels, smart cards and biomarkers to kick off a genuine revolution in the way evidence is used to inform policy decision-making (Jenkins et al., 2008; Dolan & Galizzi, 2014a, 2015; Galizzi et al., 2016a, 2016b).

On insights, among economists and social scientists working in public policy areas there is now an increasing tendency to emphasize the complementarities, rather than the contradictions, between conventional and behavioral economics (Galizzi, 2014; Bhargava & Loewenstein, 2015; Chetty, 2015; Laibson & List, 2015). In this recent view, rather than challenging or rejecting conventional economics, behavioral economics is seen as a natural augmentation or progression of conventional economics. It is now widely recognized that insights from behavioral economics offer important policy tools that can be used to change behavior, from default options to nudges, to 'behaviorally supercharged' incentives. In policy formulation, these behavioral insights also provide better predictions of the conditions under which policy interventions could work, and of the mechanisms leading to behavioral change or unintended 'behavioral spillover' effects (Dolan & Galizzi, 2015). Moreover, behavioral insights can also help to generate welfare analysis in policy formulation areas where individual choices suffer from imperfect attention or from the above described behavioral biases; where individual preferences are not consistent; or where 'decision' utilities typically differ

from 'experience' utilities (Kahneman et al., 1997; Kahneman & Sugden, 2005; Dolan & Kahneman, 2008). This tendency calls for an even more systematic integration of perspectives for policy formulation purposes, by breaking down the traditional disciplinary silos, and by cross-fertilizing 'behavioral' science insights from a broad range of fields, from economics and political science to psychology, from neuroscience to biology, from philosophy to happiness and well-being research (Dolan & Galizzi, 2014a).

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PART VII

THE POLITICS OF POLICY FORMULATION

25. Policy paradigms and the formulation process
Matt Wilder

INTRODUCTION

The view that human action is guided by paradigms has had resonance in the social sciences for over half a century (Merton, 1945). Paradigms – defined as stable and coherent roadmaps for purposive action (Kuhn, 1970a) – seem especially suited to theories of policymaking that consider formulation to be a rational process.[1] This chapter interrogates the accuracy of this view and addresses if, and under what circumstances, the policy formulation process is likely to be guided by a policy paradigm.

The notion of paradigms, at least at first blush, appears to complement other popular theories of the policy process, particularly those that purport policy stability. These are generally perspectives focused on the 'micro-foundations' of individual and group interest, such as Sabatier's (1988) 'policy core beliefs' and Baumgartner and Jones's (1993) 'policy image monopolies'. Beyond micro-foundations, the stability hypothesis finds a powerful ally in new institutional economics and its counterpart in political science, rational choice institutionalism, both of which claim that institutions are designed on the basis of perceived efficiency. Other strands of thought in the new institutionalist literature, however, challenge the assumption that institutions are purposively or rationally constructed *ex ante* (North, 1990, pp. 6–7).[2]

These themes in the broader literature assist in determining what sorts of dynamics, if not those prescribed by paradigms, characterize policy formulation. I begin by reviewing the theoretical basis of the paradigms hypothesis as it applies to public policy. Discovering that the micro-processes of policy formulation were largely overlooked in Peter Hall's (1990, 1993) archetypal 'two stage' understanding of paradigm stability and change, I then offer a brief overview of the empirical work concerning formulation and policy paradigms. Discordances between theory and the empirical record set the context for the chapter's second section, which deals with the tensions between the image of paradigm-driven policymaking and alternative conceptions of policy formulation, the latter of which shed light upon the diversity of formulation contexts often overlooked in theories of the policy process. From there I build a framework for understanding policy image resilience and erosion, which offers an explanation for why paradigms are likely to guide policy formulation only in specific circumstances. The main implication of the argument is that, perhaps in contrast to an earlier period, contemporary policy formulation is typically not an exercise determined or even necessarily guided by paradigmatic thinking.

POLICY PARADIGMS IN THEORY AND PRACTICE

Paradigms as Abstract Ideal Types

A paradigm is best understood as a framework outlining the scope and bounds of appropriate instrumental action (Blyth, 2013; Kuhn, 1970a; Papineau, 1978). While instrumental action under a paradigm is logical, the determination of the paradigm's rules in use is largely outside of what sensory data and empirical verification can tell us (Lakatos, 1968; Masterman, 1970). This is because the interpretation and even perception of such data is theory-contingent (Hanson, 1958). Warren (1984, p. 17) aptly summarized this paradox of objectivism the following way: 'By ultimately reducing our way of knowing to the reception of sense data, empiricism confuses the perception of sense data (colors, shapes) with that of things (chairs, political regimes), the latter requiring "extrasensory" perception: this is the claim of "common sense."' It is precisely what counts as common sense that the paradigm determines. Since common sense is established theoretically (and empirically informed, according to criteria established a priori), paradigms necessarily take the form of ideal abstractions. In abstract form, since each paradigm constitutes a unique 'way of seeing' the world, there will be at least some degree of incommensurability between paradigms (Phillips, 1975). In Thomas Kuhn's words, like a *Gestalt*, incommensurability means that adherents of opposing paradigms, though they are looking at the same phenomena, are 'practicing in different worlds . . . they see different things' (Kuhn, 1962, p. 149).

How paradigms change is dependent upon the strength, type and frequency of empirical anomalies, which manifest as puzzles that are inexplicable according to the image of reality outlined by the paradigm. As anomalies accumulate, they undermine the credibility of the paradigm by calling into question its (theoretical) account of how the world works (Kuhn, 1970b). Building from Kuhn's (1962) ideas about how paradigms influence the progression of the natural sciences, Hall (1990, 1993) made significant theoretical strides by offering a sophisticated treatment of anomalies in his seminal works on the evolution of economic ideas in Great Britain.

Borrowing from the literature on organizational learning (that is, Argyris & Schön, 1978; Bateson, 1972), Hall (1990, 1993) brought insights concerning 'orders of learning' to theorizing on paradigm stability and change in the social sciences. In Hall's account, minor anomalies prompt 'first order' learning related to the necessity of making minor adjustments to policy instrument settings (that is, changes related to 'how much' of a given policy is appropriate). By contrast, anomalies of moderate severity provoke 'second order' learning regarding the propriety of preferred policy instruments for solving problems. In such cases, policymakers come to realize that no level of adjustment to the 'amount' of policy will instantiate desired outcomes. Rather, the policy instruments themselves should be reconsidered. Finally, in the face of recurrent failure with first and second order adjustments, and assuming a paradigmatic alternative exists, policymakers will begrudgingly engage in 'third order' learning, whereby the very goals of the operative paradigm are called into question. When third order learning occurs, changes to all three elements of policy (instruments, settings and goals) ensue. Such was the case, noted Hall (1990, 1993), when the British Treasury abandoned both the principles and instruments of Keynesian economic policy in favour of those espoused by a new wave of monetarist economists in the late 1970s.

While it is somewhat curious that Hall did not extend this reasoning to develop an ordinal typology of policy anomalies (Wilder & Howlett, 2014), the aspect of his work that linked a disaggregated typology of social learning to corresponding types of policy change was groundbreaking. Hall's approach to understanding episodes of policy stability and change – summarized as a 'two stage' process whereby theoretical validity is first established by a community of experts before being adopted by authoritative decision-makers (1990, p. 66) – has been praised by many for its intuitive appeal and simplicity (see Carstensen, 2011, pp. 162–3). Yet, both earlier and later theorizing challenged two stage accounts of this sort (for example, Cohen et. al., 1972; Schmidt, 2008; Schön & Rein, 1994). These critiques remain pertinent to this discussion due to the tendency for subsequent work to treat paradigmatic influence as more or less fundamental to policy-making (Béland & Cox, 2013; Skogstad & Schmidt, 2011). This is in spite of the fact that Hall never claimed the paradigm change hypothesis was generalizable across all forms of policymaking.[3]

Béland (2009), for example, envisions a three stage process in which actors with competing ideational perspectives attempt to discursively reframe problems to better fit their preferred policy solutions in an intermediate stage. Similarly, though Berman (2013) makes overtures to a two stage process related to the 'rise and fall' of ideas, her stages are not synonymous with Hall's. Rather, Berman's second stage involves the introduction of new ideas that vie for dominance, not the selection of a single paradigmatic alternative.

Moving beyond mere theoretical debates about whether or not policymaking proceeds according to the logic of a dominant paradigm, the next subsection evaluates the extent to which subsequent empirical analyses affirm or repudiate the two stage process envisaged by Hall. Such an evaluation is appropriate to this discussion since Hall's two stage process is, in essence, a theory of policy formulation. To be clear, I am not considering the extent to which paradigmatic policies get implemented, rather I am concerned only with the extent to which paradigmatic ideas may survive the formulation process.[4]

Paradigms in Practice

Though perhaps a consequence of the fact that Hall wrote towards the end of an age of state-centric policymaking,[5] few empirical analyses since have found the process of policy change to be as orderly as he described (Skogstad, 2011). Contravening empirical findings fall into three categories: (1) those that have not found the process of learning and change to follow the first, second, third order sequence predicted by Hall; (2) those that have not found that authorities select a single, clear, paradigmatic policy alternative (as per Hall's two stage account), but rather some sort of policy synthesis; and (3) those in which the process towards paradigm change is not sudden and episodic, but instead gradual and negotiated.

The first category is significant mostly in the sense that it allows for major change to take place at 'low orders' (that is, those involving instruments and settings). The budgetary allocations analysed by those working in the punctuated equilibrium vein fall under the ambit of first order changes, but few would deny that exponential increases in budget allocations signify major policy change (Baumgartner & Jones, 1993). While it is implicit in the theory that such punctuations coincide with a major change to the 'policy image'

(Baumgartner, 2013), it is clearly not the case that a change in policy instruments is a necessary condition for sweeping change (Sanger & Levin, 1992).

Aside from the possibility of major (as opposed to marginal) first and second order changes, researchers have found a sequence of policy development inverse to Hall's. In the area of banking regulation following the 2008 financial crisis, Baker (2013) found that the shift from ideas about efficient markets to ideas about the virtues of macroprudential regulation occurred rather spontaneously, without any prior experimentation with first or second order changes. This has meant that goals have changed without any institutionalization of new policy instruments, a phenomenon associated with 'policy drift' by Kern and Howlett (2009; see also Hacker, 2005). While the case of macroprudential regulatory reform may be exceptional with regard to the speed with which dominant ideas shifted, this form of policy change is not rare or unique. As pointed out by Bachelor (1994), policy elites often sink considerable costs into specific policy instruments and related administrative machinery (see also Capano, 2003). This makes it more feasible to adjust policy goals, when possible, keeping the rest of the policy infrastructure intact – especially when policies serve influential 'instrument constituencies' (Béland & Howlett, 2016).

The second category of critiques is the subject of a relatively recent literature on paradigm layering and synthesis (Daigneault, 2014). While layering is a concept familiar to historical institutionalism (Thelen, 2004), Kay (2007) developed the concepts of 'tense layering' and 'paradigm synthesis' in his examination of reforms to Australian healthcare financing (Schickler, 2001). Similar to Béland (2009), Kay (2007, p. 581) came to emphasize a 'three step thesis' after uncovering a process whereby public health insurance and private health insurance, as two incommensurable paradigms, were simultaneously institutionalized ('tensely layered') prior to being synthesized into a single policy known as 'universalism plus choice'. Such syntheses occur by way of what Kay (2007, p. 584) refers to as interparadigm 'patching', where the consequences of layering are dealt with by providing an ideational background that intentionally relaxes paradigmatic notions regarding the superiority of either standalone paradigm. The suggestion here is that paradigmatic ideas will not be crisply translated into public policy if they are not widely shared to such an extent that they survive formulation unblemished (Wilder, 2015, pp. 1009–10).

The main implication of this second category of findings is that, contrary to the conventional two stage understanding of policy formulation, authoritative actors need not 'select' a single alternative. Rather, policy actors may change a paradigm just as easily as they maintain it. As demonstrated by Mondou et al. (2014), policy change and policy maintenance are not necessarily separate exercises. Similar to the logic of 'muddling through' (Lindblom, 1959), maintaining a paradigm may involve temporary departures from its core rationale (Wilder & Howlett, 2015). This paradoxical image of policymaking complements Ostrom's (1990) ideas on self-governing systems wherein 'contingent strategies' – whether big or small, temporary or permanent – are incorporated into the dominant ideational frame according to a logic of pragmatism.

The third category of critiques consists of relatively well-known and long-standing amendments to the standard image of paradigmatic policy change (Durant & Diehl, 1989). In an analysis of cumulative change in agricultural policy, Coleman et al. (1996) found that non-partisan policy settings tend to promote gradual negotiated change that may turn out to be paradigmatic. Howlett (1994) made three similar findings in his examination of Canadian policies towards Aboriginal peoples: (1) the process of policy change

from an assimilationist paradigm to one favouring Aboriginal self-government occurred very gradually over the course of the twentieth century; (2) it involved disjointed processes of negotiation (consultation); and (3) it did not proceed according to the sequence outlined by Hall.

An understandable reaction to these findings would be to consider paradigm change following such gradual and negotiated processes as coincidental. In other words, in view of the theory, consultative contexts should not be expected to produce paradigmatic change. While I return to this question later on, it suffices to say that protracted paradigmatic change in negotiated settings is indeed unlikely, but by no means accidental.

In light of these contravening empirical findings, it seems the two stage heuristic is an unrealistic treatment of the formulation process. There is more to formulation than articulation and selection among alternatives. Yet it is also possible that the very notion of policy paradigms is problematic. Before getting into a discussion of what a more nuanced account of the formulation process means for theorizing about policy paradigms, it is prudent to establish precisely what actors holding paradigmatic views bring to the policy process.

Paradigms and Paradox

As pointed out by Zittoun (2015, p. 125), 'policy paradigm' is something of a misnomer, as evident by the fact that the paradigm uncovered in Hall's analysis had to do with the science of economics, not the science of policymaking.[6] What distinguishes policy paradigms from paradigms more generally is whether or not they are institutionalized in policymaking procedures and practices. While many paradigms may exist in the 'marketplace of ideas', policy paradigms are put to practical use by policymakers in their day-to-day operations (Oliver & Pemberton, 2004). This perspective, however, presumes both the rational/purposive construction of institutions (according to a single logic, at that) as well as the complete replacement of institutions at moments of policy change. These assumptions are sustained in neither the empirical work on policy paradigms nor in the scant literature on policy formulation (see, for example, deLeon, 1992; Hajer, 2005; Linder & Peters, 1990; Teisman, 2000).

The takeaway here is that there is an unmistakable discordance between paradigms in theory and practice. That said, the empirical record has not demonstrated that paradigms do not exist, nor has it demonstrated that policy paradigms are something other than what Hall thought they were (but see Daigneault, 2014). Rather, given that they are abstract ideal types, paradigms are seldom translated into policy as textbook solutions to policy problems (Wilder, 2015). We must expand our focus beyond theorizing on paradigms if we hope to understand how paradigmatic ideas influence the formulation process.

ALTERNATIVE CONCEPTIONS OF POLICY FORMULATION

As demonstrated so far, Hall's (1990, 1993) two stage approach fails to provide a nuanced account of policy formulation. Nonetheless, according to most theories of policymaking, ideas are preordered in the minds of actors and assumed to be unchanging (Zittoun, 2015, p. 129). Leaving aside ideational adjustments necessary for effective implementation

(Pressman & Wildavsky, 1984), mainstream treatments of policy ideas remain insufficient for an adequate theory of policy formulation (Jorgensen & James, 2009). This is because policy formulation is itself a multi-stage discursive exercise where preconceived ideas change both as a consequence of social learning and as a matter of political necessity (Hay, 2001; Wilder, 2015).

Paradigms and the Micro-processes of Policy Formulation

Rather than seeing policymaking as dependent upon decision-makers' willingness to endorse one paradigmatic idea or another, it is important to recognize that the micro-processes of policy formulation add at least one additional point of articulation that may have significant consequences for the type and magnitude of change advocated within a given proposal (Thomas, 2001). Accordingly, many have argued that the rigidity of the paradigms concept as espoused by Kuhn and Hall be dropped in favour of a softer image of paradigms that accepts that rival paradigms can be commensurable (Daigneault, 2014; Schmidt, 2011). Doing so, however, obfuscates how ideas matter (Wilder, 2015), an argument I return to later on.

Figure 25.1 breaks down the process of policy formulation into four sub-stages, ranging from the conceptualization of discrete, paradigmatically precise policy alternatives to the consolidation of refined policy proposals. During *conceptualization and appraisal*, actors articulate their ideal policy solutions. At this stage, paradigmatic ideas as abstract ideal types are adapted to the specific policy context. Throughout the *dialogue* and *formulation sub-stages*, positions established during conceptualization may become less paradigmatically precise as a result of negotiation and compromise (Scharpf, 1997; Schön & Rein, 1994). These rounds, along with adjustment processes involved in the authoritative *consolidation* of policy proposals – which might involve brokered compromises between recalcitrant coalitions – often result in synthetic policy solutions that fail to maintain the ideational novelty present at conceptualization (Sabatier, 1988; Teisman, 2000).
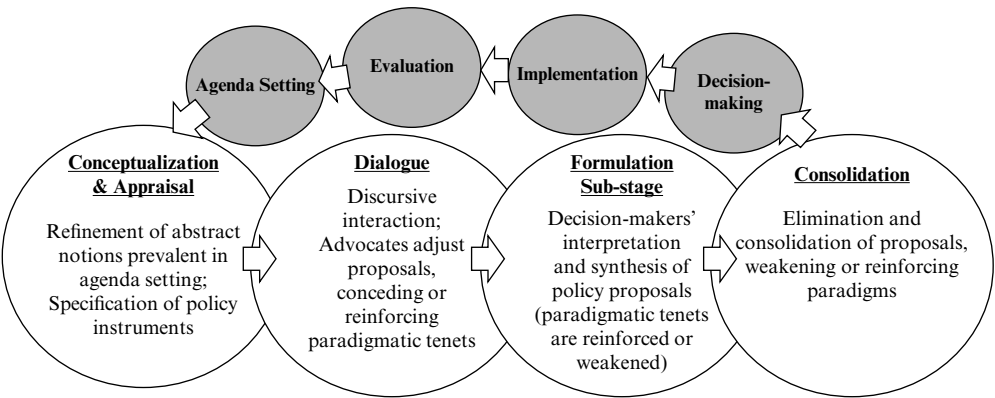
Source: Adapted from Thomas (2001).

Figure 25.1   The micro-processes of policy formulation

Such exercises in 'recombination' or 'coupling' (to use Kingdon's, 1984 terms), which occur throughout the formulation sub-stages, rarely result in a new 'synthetic paradigm', although this possibility should not be ruled out. Rather, paradigmatic proposals are often joined in ways that more closely resemble 'tense layers' (Kay, 2007). When layering is avoided, the formulation process may produce synthetic policy images/frames in two ways: (1) consciously, according to a logic of 'policy arbitrage' (Schneider et al., 1995), in which a new paradigmatic alternative is intentionally forged from two or more existing solutions; and (2) circumstantially, according to a more compromising, less rational logic called 'policy bricolage' (Campbell, 2004; Carstensen, 2011), in which solutions are pieced together in ad hoc fashion under conditions of constraint. While bricolage may eventually result in the emergence of a new bona fide paradigm, such as the 'neo-classical synthesis' in economics, the experimental orientation of bricolage means that such outcomes rely to some degree on serendipity (Lévi-Strauss, 1966, p. 150).[7]

Understanding how the formulation process plays out requires an account of both the policy context – namely, the level of ambiguity surrounding the policy problem – and actors' motivations, the latter of which cannot be separated from the policy ideas actors espouse (their preferred frames) or the institutional context in which they operate. Here we may further distinguish between the 'espoused theories' of individuals (which are more likely to be paradigmatic) and organizational 'theories in use' (which more directly impact policy) (Argyris & Schön, 1978). Policy frames, whether abstract 'espoused theories' or practicable 'theories in use', are invariably vulnerable to contestation if not always discursively negotiated to some extent. The next section deals with questions related to why, how and with what consequence contestation and negotiation of policy frames occur during policy formulation.

POLICY IMAGE RESILIENCE AND EROSION

If policy frames (also known as 'policy images') are open to both contestation and negotiation, as claimed above, then why are policies seemingly so stable? This question occupied earlier theorists puzzled by policy stability in the face of Arrows's (1951) proof that preferences in two-plus dimensional space will generate disequilibrium or, at best, cycling equilibria. The consequent inability to explain policy outcomes based solely on actors' preferences contributed to the rise of 'new institutionalism' in both economics and political science. From an institutionalist perspective, policy stability or change is not simply a matter of the resolvability of issue at hand (although this is certainly important). Rather, stability or change is contingent on the characteristics of the formulation setting.

(Faux) Equilibrium Models

Institutionalists have long recognized the importance of distinguishing between preference-induced equilibrium as it applies to microeconomic theory and structure-induced equilibrium as it applies to real-world politics. Speaking to the degree to which ideational stability leads to an equilibrium of tastes, North observed, 'individuals make choices based on subjectively derived models that diverge among individuals . . . the information the actors receive is so incomplete that in most cases these divergent subjective models show no

tendency to converge' (1990, p. 17). This, of course, does not mean that paradigmatic ideas never exist in the minds of actors. Nor does it imply that policy is the product of some pluralistic compromise between divergent tastes in society (as per the notion of a society-wide 'reflective equilibrium'; see Rawls, 1971). Physical access to the policy process is far too restricted, and the search capacity of policymakers far too limited, for the pluralistic image to hold true (Scharpf, 1997; Simon, 1997). Rather, both institutions and ideas serve preference ordering functions necessary for effective policy action. If institutions are efficacious, we need not look to their corresponding ideational frames – to an equilibrium of tastes – to explain stable outcomes. However, at periods of change, the coherence of ideational frames, paradigmatic or otherwise, matters tremendously (Streeck & Thelen, 2005, p. 18).

The dominant understanding of equilibrium in political science is that it is structurally induced (Shepsle, 1979). As far as preferences are concerned, stability is considered to reflect 'systematic biases' based on roughly equilibrated preferences among elites, not 'popular biases' based on equilibrated tastes in society (Baumgartner & Jones, 1993; Elkin, 1987). As such, policy stability depends on the extent to which systematic biases are maintained, both within elite circles and vis-à-vis the (partially apathetic) electorate that grants the elite its mandate (Mondou et al., 2014). This requires that dominant frames be discursively reconstructed as contexts change, which depends upon the rhetorical savvy of proponents of the status quo. But discourse cuts both ways, and can just as easily be used to undermine policy stability. As Jones put it, 'preferences in politics are less directly connected to goals than are those in economics, so that actors can more easily persuade others that a policy relates to their ends in politics . . . in economics, preferences change only exogenously (for example, through new technologies), whereas in politics, preferences can also change endogenously (for example, through persuasion)' (Jones, 1989, p. 10).

In political science, the best known treatment of persuasion is William Riker's (1986) 'heresthetic', which centres on the rhetorical manipulation of policy dimensions (sometimes called 'attributes'). Insofar as paradigms are concerned, while it is true that incommensurability prohibits dimensional manipulation, successful rhetoric convinces participants to see dimensions in a new light (as per the logic of arbitrage discussed earlier; see Schneider et al., 1995). Because commensurability is relative (Wilder, 2015), creativity and ingenuity surrounding new ways of thinking create opportunities for dimensional couplings not previously considered or thought possible. That said, it should be stressed that opportunities to affect such couplings are limited by a range of technical, cognitive and institutional constraints, a major one being the brevity of 'policy windows' and 'choice opportunity structures' (Cohen et al., 1972; Kingdon, 1984). Although opportunities are constrained by 'political time', 'stable winners' may emerge from what may appear at first to be quite contentious and divided settings.

It should be clear by this point that institutions are not necessarily paradigmatic. Rather, institutions may themselves facilitate endogenous policy change (Ostrom, 1990; Streeck & Thelen, 2005). Although equilibrium may be structurally induced in some policy settings by institutionalized paradigms – as theorized to be the case in closed, hierarchically organized policy subsystems (Howlett & Ramesh, 1998) – formulation occurs, now more so than ever, across many different settings (Teisman, 2000). For this reason, 'venue change' – which was argued by Baumgartner and Jones (1993) to be a necessary condition for major reform in policy areas dominated by closed subsystems – may be less

integral to paradigm erosion than in the past. Beyond decentralization, policy formulation is now more often intentionally transparent, inclusive and deliberative (Peters, 2011). This brings the discussion to consultation, bargaining and negotiation.

Bargaining and Brokerage

Riker is not the only rational choice theorist to accommodate image manipulation by engaging with dimensional analysis. Rational choice perspectives on bargaining also foresee dimensional compromises during negotiation. Scharpf (1997, chapter 6), for example, demonstrates this tendency in game theoretic terms by constructing four arche-types of negotiated agreements that bear a direct correspondence to negotiated modes of policy formulation.[8] Owing to his focus on rules of negotiation, Scharpf's approach is useful for predicting the outcomes of negotiated processes when the positions of actors can be estimated a priori. The crucial point gleaned from Scharpf is that unforeseen compromises may result from the deliberative process, not just in terms of 'splitting the difference' by way of mutual adjustment (that is, arriving at the midpoint between actors' ideal preference points) but also in instances when 'side payments' and logrolling are nec-essary to achieve agreement (Schön & Rein, 1994).

Obtaining sanction to go forward from actors possessing veto power – whether formal or effective – is common to formulation. Regime theorists, for example, have long recog-nized that the state often does not possess the requisite resources and expertise to go it alone on many policies, making policy formulation a collective action problem (Olson, 1971; Stone, 1989). The state is not, however, at the complete mercy of economic interests and experts, but has a unique ability to assume coordination costs involved in assembling and maintaining policy regimes (Haas, 1989). This gives the state a pronounced role to broker or force compromises between obstinate coalitions, many of which would prefer to 'go along' rather than miss the opportunity for a spot on the 'policy bandwagon' (Elkin, 1987; Kingdon, 1984; Sabatier, 1988).

When do Paradigms Matter for Policy Formulation?

Having established the non-ideational mechanics behind ideational change, I now return to the content of policy ideas. Specifically, what is needed is an account of how ideational content changes as a result of learning, mediated as learning is by the political processes just described. Dunlop and Radaelli (2013) provide a framework for understanding policy learning that uses three dimensions pertinent to this discussion. These are actor certifica-tion, problem tractability and control. Actor certification is essentially an analogue for authority, delegated or otherwise. Problem tractability represents the level of ignorance, uncertainty or ambiguity surrounding policy problems. Control conveys the degree to which learning is constrained or structured, for instance, by institutionalized veto players.

Accounting for the system of actor certification allows us to differentiate learning dynamics in monopolistic settings from those in negotiated/consensual settings, while taking care to distinguish between absolute and delegated authority. Pivoting off Dunlop and Radaelli's insights concerning the level of control over how learning occurs, we may factor in the degree of contestation around a policy problem as an additional contextual characteristic affecting outcomes, but one that is unique to negotiated settings.

Table 25.1 Dynamics of policymaking in negotiated settings (dispersed authority)

	Degree of contestation		
Level of ignorance	High		Low
High	Politicized experimentation		Bayesian trial and error
Low	Synthetic outcomes (1) arbitrage (2) bricolage	Layered outcomes (3) layering (4) tense layering	Paradigm survives formulation unamended

Table 25.1 outlines the relationship between the degree of contestation and the level of ignorance surrounding policy issues in negotiated settings. Since paradigmatic ideas necessarily correspond to low levels of ignorance, paradigmatic outcomes are limited to the bottom row of Table 25.1. Recalling the previous discussion on the micro-processes of policy formulation (see Figure 25.1), the bottom right quadrant represents a situation in which paradigmatic ideas present during conceptualization survive the formulation process unamended. This is only possible in negotiated settings if the degree of contestation is low. When contestation is high and the level of ignorance is low, as per the bottom left quadrant of Table 25.1, we can expect either ideationally synthetic or layered outcomes.

Some discussion of the bottom left quadrant of Table 25.1 is warranted since high contestation paired with low ignorance gives rise to four possibilities: two synthetic possibilities and two layered possibilities. One synthetic possibility is that policy is thoughtfully crafted by bringing together two or more pre-existing solutions according to the logic of 'policy arbitrage' (Schneider et al., 1995). In a case of pure arbitrage, the synthetic policy will possess the qualities of a new standalone paradigm. The second synthetic possibility is that policy is cobbled together according to the less rational, more experiment-oriented process of 'policy bricolage', in which case the immediate status of the outcome is less certain (Campbell, 2004). When ideational synthesis proves impossible, layered outcomes will be the norm. One layered possibility is that two or more separate policy solutions are pursued simultaneously (Thelen, 2004). The second layered possibility is a situation in which two or more paradigmatic alternatives are pursued simultaneously. The fact that these paradigmatic alternatives are resistant to synthesis suggests that they exist in a 'tense' relationship with one another, hence the term 'tense layering' (Kay, 2007).

Aside from these outcomes, when ignorance is high and contestation low, as in the top right quadrant in Table 25.1, non-politicized learning begets a Bayesian process of trial and error policymaking. When both ignorance and contestation are high, problem solving is politically contentious, in which case contestation is likely to centre upon the definition of policy anomalies (Wilder & Howlett, 2014, 2015).

This is of course not the whole story. While collaborative governance arrangements are increasingly common (Howlett, 2014), hierarchical policymaking settings still abound wherein contestation is limited by structure-induced equilibrium. It should be stressed, however, that policy monopolies are by no means exclusive to hierarchical arrangements. Rather, monopolies may be prevalent in highly technocratic but consensus-based policy areas where issues are well understood or, conversely, in policy areas where a dearth of

Table 25.2   Dynamics of policymaking in monopolistic settings (concentrated authority)

	Homogeneity of group interest	
Level of ignorance	High	Low
High	Bayesian trial and error pursuit of group interest	Bayesian trial and error towards equilibrated group interest
Low	Paradigm survives formulation unamended	Synthetic outcome (arbitrage)

contravening ideas produces monopolies despite a high level of residual uncertainty and potential for contestation. These possibilities fall in the bottom right and top right quadrants of Table 25.1, respectively.

When policy ideas are not contested, due perhaps to the closed nature of the policy setting, we should resist the assumption that paradigmatic ideas determine outcomes. Regime theory is once again illustrative in that it does not assume that a monopoly over policymaking begets or follows from homogeneity of interests, as per the notion of 'policy image monopolies' (Baumgartner & Jones, 1993). This is due to the tendency for 'policy bandwagoning' to bring what are only marginally similar interests – and, in some cases, dissimilar interests – into the policy fold, a phenomenon described by Elkin (1987) as 'going along'. As such, homogeneity of interests may be variable even within monopolistic (that is, single-coalition) policymaking settings (Sabatier, 1988).[9]

Table 25.2 outlines the relationship between homogeneity of the group interest and the level of ignorance surrounding policy issues in monopolistic settings. Unlike Table 25.1, it is not helpful to consider political contestation in monopolistic settings because important actors are politically aligned as a single coalition. Instead, the degree to which interests are homogeneous within the monopolistic group is a variable of interest.

Once again, since paradigmatic ideas resolve ambiguity (lowering the level of ignorance), paradigmatic outcomes are confined to the bottom row of Table 25.2. Recalling the micro-processes of policy formulation, paradigmatic ideas present at conceptualization should only be expected to survive the formulation process unaltered when the level of ignorance is low and homogeneity of group interest is high, as per the bottom left quadrant of Table 25.2. When both ignorance and homogeneity of group interest are low, as they are in the bottom right quadrant, we should expect synthesis according to a logic of arbitrage. Unlike negotiated settings, bricolage and layering are typically avoided in monopolistic settings because monopolistic settings often employ dictatorial or majoritarian rulesets (Scharpf, 1997). This means that subordinate interests in monopolistic settings have little choice but to go along with the dominant or majority interest (Sabatier, 1988).

How the dominant or majority interest comes to be defined is, however, an important question. In contrast to negotiated settings, both internal conflict and negotiation are likely to be avoided *ex ante* by mutual adjustment on the part of participants in monopolistic settings. For this reason, we often do not recognize synthetic outcomes when we see them because coalition members have re-equilibrated the group interest ahead of time. Indeed, many 'peak' groups engage in behind-the-scenes re-equilibration on an ongoing

basis as a means of 'image management' necessary for retaining a policy monopoly (Bachelor, 1994; Mondou et al., 2014; Ostrom, 1990; Scharpf, 1997, pp. 107–10). Rational arbitrage triumphs over ad hoc bricolage and layering in monopolistic settings because compromise is much less integral to successful policy formulation in monopolistic settings than it is in consensual settings.

As for the top row of Table 25.2, starting with the top left quadrant, high homogeneity of interests paired with a high level of ignorance is expected to produce Bayesian experimentation in the pursuit of the group's (uniform) interest. Conversely, moving to the top right quadrant, low homogeneity of interest along with a high level of ignorance produces somewhat unpredictable outcomes, but outcomes unlike those surrounding politicized experimentation in contested/negotiated settings. Rather, a high level of ignorance is at least somewhat responsible for low homogeneity of group interests since uncertainty corresponds with ambiguous preferences. Accordingly, the process is likely to be Bayesian in both top row quadrants of Table 25.2: in pursuit of known group interest on the left side, and in pursuit of eliminating ambiguity and achieving equilibrium of group preferences on the right.

In summary, in monopolistic settings, the community of actors may be treated as an organizational entity in which friction between internal interests may be reduced by prior negotiation or, more likely, mutual adjustment (Argyris & Schön, 1978). Arriving at such a 'reflective equilibrium' is possible, however, only if the level of ignorance surrounding policy problems is low, with the result being a synthetic outcome if interests diverge significantly. When the level of ignorance is high, guidance may be reduced to the pursuit of interests alone, but the coherence of this strategy is dependent upon a relative homogeneity of interests. This leaves only instances in which the level of ignorance is low, while the homogeneity of interests is simultaneously high, that we should expect a paradigm to guide formulation processes from start to finish in monopolistic settings.

Formulation dynamics are similar in consensual settings, with two important differences. Given the variety of actors' backgrounds, mutual adjustment will be less common than negotiation and bargaining. This is why an axis representing 'homogeneity of interests' is appropriate to monopolistic policy settings, while 'degree of contestation' is appropriate to more deliberative fora. In the latter, we should expect a paradigm to inform formulation from start to finish only when contestation and the level of ignorance are simultaneously low.

CONCLUSION

A parochial focus on technical policy areas may have led earlier research to assume paradigmatic policymaking is more widespread than is actually the case. While it is true that the American system of policymaking – one in which technical issues are handled in closed, hierarchically organized subsystems and only occasionally disrupted through legislative action – resonates with Kuhn's ideas on stable 'normal science', policy formulation in most other countries does not adhere to this model. Instead, in part due to the relative inefficacy of legislatures in many political systems, the process of policy change has not played out as predicted in many empirical tests of the paradigm change hypothesis (Coleman et al., 1996). Beyond this, the advent of new gov-

ernance arrangements threatens the extent to which day-to-day policymaking mirrors normal science (Zittoun, 2015). In many such arrangements, even technical questions have become contested as they have become subject to more open consultation and deliberation. In the language of the framework introduced in this chapter, important changes have occurred in many policy areas with regard to both the 'level of ignorance' and 'degree of contestation', making paradigmatic policymaking less common nowadays than it may have been in the past. In Kuhn's terms, policy is more often than not 'pre-paradigmatic'.

Should the fact that paradigms are rarely dominant in policy formulation be cause for despair? My answer is no. Where consensus is clear on technical and distributive questions, policy paradigms are likely to emerge. Where these issues are contested, equilibria derived from policy image monopolies will be unstable, as Baumgartner and Jones (1993) suggest. While more purposive/rational policy formulation would be preferred, the characteristics of the formulation process often reflect what is known, and what is agreed to be known, about a given area of public policy. As ambiguity is overcome and greater levels of consensus achieved, both within and between groups, policy formulation will become more paradigmatic. While the image of paradigmatic policymaking may have been apt for capturing the formulation dynamics of a bygone age of closed-quarters formulation, it appears as though these criteria are rarely satisfied at present.

NOTES

1. Policy formulation is, at present, best understood in its relation to other stages in the policy cycle (Anderson, 1975). Implicit in the policy cycle heuristic is the notion that formulation is the rational process of packaging and selecting policy alternatives made present during agenda setting. However, the stages heuristic is, for the most part, a mere conceptual framework; (re)formulation may occur at any point after formal formulation, the latter of which does not always take place (see, for example, Pressman & Wildavsky, 1984).
2. While sociological institutionalism posits that durable institutions may be constructed for any number of reasons, historical institutionalism challenges the assumption of purposive institutional design. Historical processes that lend themselves to institutional change and continuity are not driven explicitly by the actions of agents working within institutional contexts, but by larger processes in which institutions themselves are embedded (Granovetter, 1985). Staking out a middle ground between the 'atomized' image of policymaking conveyed by the rational choice perspective and the structuralism (whether functional or dysfunctional) implied by the other 'institutionalisms', there has been growing interest in the discursive construction of public policies from a fourth institutionalist perspective – discursive institutionalism – that stresses the ongoing deliberation and negotiation of policy frames (Schmidt, 2008).
3. In fact, Hall (1993, p. 284) was careful to point out that '[a]lthough something of a new synthesis between them has emerged in recent years, during the period examined here, namely the 1970s and early 1980s, these two economic ideologies were distinct paradigms'. The paradigm change hypothesis was thus considered by Hall to apply only to very specific cases at very specific points in time.
4. For a discussion of the implementation of paradigmatic ideas, see Wilder (2015).
5. State-centric policy environments being those wherein formulation is dominated by closed, hierarchically organized subsystems (see Howlett, 2009).
6. On this point, it is arguable that Baker's (2013) analysis of macroprudential regulatory reform, which also deals with the science of economics, more closely adheres to Kuhn's ideas on the sequence of scientific revolutions than it does Hall's ideas on the sequence of policy revolutions. Compared to Kuhn, Hall hypothesizes greater contestation over the nature of policy anomalies, which may be more pronounced in his case than Baker's due to the politicized nature of macroeconomic policy relative to banking regulation. Politics, while no doubt present in the natural sciences, is much more salient with respect to maintaining the policy status quo. As Howlett (1994, p. 642) put it, 'in the policy world . . . the returns to individuals often run in the direction opposite to those in scientific communities, with conformity rather than iconoclastic behaviour reaping the rewards'. This may explain why Baker uncovered a highly 'technocratic' process whereby the

community of adherents quickly abandoned the old paradigm prior to any effort to rescue it by way of first and second order alterations.
7. I neglected to make the distinction between arbitrage and bricolage in Wilder (2015), though I think it is an important one, particularly as it relates to ideas accompanying policy diffusion and transfer.
8. These are spot contracts, distributive bargaining, problem solving and coordinated negotiation, which exist in addition to four other general modes of policy formulation, namely, unilateral action, negotiated agreement, majoritarian systems and hierarchical direction (Scharpf, 1997).
9. Atkinson and Coleman (1989) discovered that consensus is rare even among peak and sectoral economic interests – precisely those interests assumed in the literature to be most uniform.

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26. The politics of policy formulation: overcoming subsystem dynamics
Paul Jorgensen

> It will be some time before we acquire the historical perspective necessary for judging the phenomenon of policy studies. It is not too early to suspect, however, that, less than constituting a significant contribution to the development of political science as a discipline, the move to policy studies was more a case of pouring old wine into new bottles. (David Ricci, 1984, *The Tragedy of Political Science*)
>
> I conclude that policy is the new theory. Policy is to politics what method is to research. It's a script for enlivening some future possibility – an experiment. No matter what we study, scholars are all about the future, about saying something tomorrow or the day after that. (Ruth Wilson Gilmore, 2011, 'What is to be done?')

THE CRISIS OF POLICY FORMULATION

By most accounts we are living in a crisis moment of our own making. While this moment has well-documented and interconnected environmental (Klein, 2014), economic (Duménil & Lévy, 2011; Piketty, 2014; Varoufakis, 2011), and racial (Alexander, 2010; Gilmore, 1998; Mills, 1997; Reed, 2013) dimensions, few recognize the 'crisis of policy formulation' as the common thread.[1] Many decision-makers know that drastic humanitarian problems exist and allow these problems to persist in the face of known solutions. Technically feasible, effective, and potentially popular policy designs fail to see the light of day because a majority of decision-makers lack the political willpower necessary to solve problems. These decision-makers have ensconced themselves in policymaking practices that skew policy designs toward the interests of the wealthy, and at times either make counterproductive decisions or generate information to rationalize and displace concern for these problems.[2]

In a revealing synopsis of our crisis moment, Phil Angelides, chairperson of the US Financial Crisis Inquiry Commission, argued that the 2008 financial crisis was a 'result of deliberate public policy that unleashed many of the constraints of public interest on our financial institutions,' and said that there is 'no correlation between those who paid the price and [those] who caused the crisis.' Angelides noted of the solutions to the financial crisis: 'politically this may be a struggle, but policy-wise it's not hard.' He then repeated himself in reference to mitigating environmental catastrophe: 'it is very doable from a technical standpoint, the question is whether we're going to have the political will to make the conversion fast enough.' With those words, Angelides summarized the crisis of policy formulation.[3] Alas, it is quite difficult to find theories of policy formulation built from this premise.

The dominant approach to the study of policy-formulation politics is the subsystem approach (Sidney, 2006).[4] This approach claims that scholars can understand the most important aspects of policy formulation by identifying the actors in a subsystem, and

knowing their ideological and motivational proclivities (Sidney, 2006, pp. 80–1). An example of the subsystem approach is the Advocacy Coalition Framework (ACF), which has been popular within the field of policy studies for three decades and has spawned many typologies of policy change (Howlett & Ramesh, 1998).[5] For all of its apparent laudable qualities – especially its focus on elites, the nature of information dissemination, and its complex understanding of the cognitive individual – the ACF's core epistemological assumption of methodological individualism inhibits its ability to understand the politics and crisis of policy formulation.

Methodological individualism is an epistemological assumption that argues: (1) the individual can be understood separate from his or her social, political, and economic context; and (2) social, political, and economic phenomena can be explained as resulting from the intentional and determinative actions of individuals. The ACF claims that coalitions within a policy subsystem are aggregations of individuals who join together because they share similar belief systems, and policy change usually occurs when individual belief systems change. This methodological individualism inhibits the ACF from identifying the most insidious aspects of policy formulation such as inequality, racism, the influence of moneyed interests, and other forces that prevent known solutions from being implemented.

This chapter unfolds in four sections. The first places the ACF in the context of the broader subfield of policy studies by explaining the origins and rise of policy studies. The second section reviews the ACF's explanation of policy-formulation politics and its positive contributions to this field of study. The third section offers a political-economic critique of the ACF's assumptions and explains how these assumptions, especially methodological individualism, limit the ACF's comprehension of policy-formulation politics. Critics of the ACF have missed its reliance on methodological individualism in part because it remained implicit for nearly 30 years. The fourth section introduces a 'policy analysis for accountability,' which has as its purpose an often overlooked goal of policy analysis: to produce information that holds public officials accountable. To accomplish this goal, the fourth section surveys research that improves upon the ACF's understanding of policy-formulation politics.

THE RISE OF POLICY STUDIES AND SUBSYSTEM ANALYSIS

The 'post-behavioral' era in political science is the intellectual origin of the ACF. This era was a response to the dramatic political, environmental, economic, and racial crises of the 1960s, and influenced the emerging field of policy studies in ways that are still recognizable today. Several prominent political scientists, including Austin Ranney and David Easton, called for the discipline to emphasize the content of policy over the processes of policymaking in order to increase its relevance to political discourse. By increasing its political relevance, political science could improve democratic practices. The focus of political science on political relevance and improving democratic practices is called the 'policy turn' (Ricci, 1984, p. 202; also see Dryzek, 2006).[6] While many championed this approach, the last 40 years have witnessed the discipline's 'steadily increasing practical estrangement from politics' (Gunnell, 2015, p. 415). This estrangement has become commonplace, as one prominent political scientist argued recently: 'it is not any scientist's job

to make the results of their scientific work accessible to the layperson . . . it's not the job of the scholars doing the work to explain it' (Vavreck & Friess, 2015, p. 43). Regardless of whether the journalistic enterprise is equipped to handle the division of labor implied by this message, this attitude distances political science from politics and helps confirm predictions that the policy turn toward political relevance will swerve into a ditch.

The goals of the post-behavioral era, which include political relevance and improving democratic practice, are in tension with its pluralist and behavioralist methodology (for example, Ricci, 1984). The pluralist methodology of the 1950s and 1960s resembled more a normative theory of democracy than it did an empirical investigation into the politics of policy formulation. This type of pluralism assumes that individuals and groups can use a multitude of resources to gain influence, that a multitude of economic interests exist, and that other interests (for example, religion) can be analysed separately from and may overshadow economic interests. According to pluralist methodology, policy formulation occurs when individuals aggregate themselves into groups and levy their exogenously determined preferences onto the state in a relatively open system of political conflict (Dryzek, 2006; Farr, 1995; Gunnell, 1996).

The post-behavioral era never relinquished its adherence to behavioralist methodology and believed this methodology could be directed toward policy content to achieve political relevance and improve democratic practices. Behavioralist methodology reorients research questions toward political behavior and policy processes, and tends to be associated with quantitative approaches such as surveys, polls, and experimentation. Together, pluralism and behavioralism focused on the 'processes of politics . . . especially as revealed in groups or larger systems,' which divided neatly along policy-jurisdictional boundaries. It was these pre-defined policy areas (for example, environment, prisons) and the 'attitudes, meanings, and beliefs about politics' that allowed scholars to aggregate individuals into subsystems, which became the foundation of policy-formulation research and the ACF. Within these larger systems, groups compromised with adversaries to have at least some influence on policy design, making outcomes representative of a multitude of preferences (Farr, 1995, pp. 202–4). Not only did the subsystem, as the unit of analysis, derive from individual preferences, but also the total number of coalitions within the subsystem represented the scope of all preferences.

Pluralist and behavioralist methodology alone could not serve the goals of the policy turn because they placed too much weight on the individual, individual beliefs and attitudes, and processes, which not only served to downplay the most undemocratic aspects of policy formulation as it was actually practiced (Manley, 1983), but served to make policy studies an amorphous field that 'did not so much discover a new realm for professional inquiry as it offered an alternative name for the old realm, the world of politics in its various dimensions' (Ricci, 1984, p. 204). For example, Easton's System Theory has been described as a 'mechanistic metaphor' that treats most of politics as a 'black box,' and alienates political science from public discourse (Torgerson, 1995, pp. 229–30).[7]

Throughout the 1980s and 1990s, policy studies came to accept multiple methodologies beyond pluralism and behavioralism (for example, Gunnell, 2015), but these new tendencies and methodologies never overcame the old premises of pluralism and behavioralism. The most significant development was the incorporation of 'rational choice,' an approach that is synonymous with neoclassical economics. This approach not only became the dominant way to teach policy analysis, but its methodological individualism fit comfortably

into the ACF's pluralist and behavioralist approach to policy-formulation politics. The ACF achieved relevance in graduate seminars for 30 years, but this relevance serves to continue the tensions of the post-behavioral era. The ACF's methodology not only fails to grasp the reality of policy formulation, but serves to depoliticize policymaking, which undermines its claim to improve democratic practice and stymies the progress of policy studies.

THE ADVOCACY COALITION FRAMEWORK AND ITS ASSESSMENT OF THE POLITICS OF POLICY FORMULATION

The ACF seeks to explain *all* policymaking phenomena using its model of the individual. The ACF's individual is said to be guided by bounded rationality, biased assimilation (coupled with the notion that individuals remember losses more than victories in politics, and tend to exaggerate the motives and behaviors of their opponents), and a three-tiered belief system that allows scholars to aggregate individuals into advocacy coalitions and then again into subsystems (assuming scholars can ascertain what policy elites believe by asking them to state their beliefs on a questionnaire or in an interview). The ACF appears to have a more complex understanding of the rational actor, as it demands that the policy scholar understand the influence of ideology in policy-formulation politics.

The three-tiered belief system includes 'deep-core beliefs,' 'policy-core beliefs,' and 'secondary beliefs.' Deep-core beliefs include the basic normative judgments and prejudices regarding individual/social rights and ethnic/religious identity. These beliefs are the most difficult to manipulate and change during a lifetime. Policy-core beliefs include the normative and empirical beliefs about a policy issue (problem definition, value priorities, tools and instruments, and the preference for market or government solutions); these beliefs are still quite difficult to manipulate and change. Secondary beliefs are the easiest of the three to manipulate because they concern how policy-core beliefs become applied to specific situations within a subsystem. Advocacy coalitions are collections of individuals within a subsystem who share deep- and policy-core beliefs. Individuals within advocacy coalitions deploy a range of resources and strategies to translate their beliefs into public policy. These include shopping for the appropriate decision-making venue, using public opinion as leverage in the decision-making process, mobilizing political allies and demobilizing opponents, selecting appropriate information and research to convince decision-makers, raising and spending money, and using leadership skills.

These subsystems are independent of, but can be affected by, the larger socio-economic and political environment, and by other subsystems. These individual, isolated subsystems exist within an environment characterized by 'relatively stable parameters' and 'external events,' which represent constraints on the actions of subsystems. The stable parameters are items that the ACF holds constant, such as the types of problems, goods, and services that exist within a society; the distribution of resources; societal values; and constitutional rules. These parameters are assumed to exist for long durations (the ACF mentions 100 years, but this demarcation is arbitrary), and are not thought to be targets for strategic manipulation by advocacy coalitions. External events are those unexpected phenomena that can force changes to public policy, such as sudden alterations in public opinion, oil shocks, critical elections, and policy decisions made by other subsystems.

These external events can be almost anything occurring outside the particular subsystem of interest, and are similar to 'focusing events' that reorient both the attention of policymakers and the public to a particular issue (Kingdon, 1995, p. 94). Given that stable parameters rarely change, that focusing events are unlikely, and that individual belief systems are also stable, the ACF views subsystems as stabilizing forces in the politics of policy formulation.

The ACF's stated goal of using the individual as the foundation for subsystem analysis was to dislodge the 'stages heuristic' and the 'two-communities metaphor' from dominance in policy studies. The stages heuristic describes policymaking as a linear process of agenda-setting, alternative selection, formulation, implementation and evaluation, with different actors and different institutions involved at each stage.[8] According to the two-communities metaphor, the different institutional positioning of policymakers (for example, legislatures versus bureaucracies) creates conditions for the underutilization of policy analysis in policy formulation. The actor's institutional position will dictate their incentives and goals for policymaking. In the ACF, in contrast, the actors and activities within subsystems transcend the stages and formal institutions of the policy process, to incorporate a larger number of actors who affect all stages of policymaking. In essence, this is an expansion of Heclo's (1978) notion of an iron triangle (the stable and mutually beneficial relationship between interest groups, legislative committees, and bureaucratic agents within a policy domain). The ACF approach also disavows the institutional component of the two-communities metaphor. Instead, the subsystem is an altogether different type of aggregation, held together by belief systems rather than institutional settings. At the same time, the ACF retains the two-communities metaphor's essential hypothesis: that information utilization is a rare occurrence. But it is opposing belief systems and not institutional positioning that impede information utilization.[9] This barrier plays an important role in the ACF's explanation of policy change.

For the ACF, policy change (minor or major) occurs when individual belief systems change within a subsystem. This change can occur as a result of exogenous forces acting on the subsystem's beliefs (for example, focusing events), or as a result of endogenous forces, such as policy-oriented learning that occurs from the dissemination and communication of scientific-technological-quantitative information (an idea that is also derivative from Heclo's work). The exogenous mechanisms for policy change include changes to the relatively stable parameters, external events, and a 'hurting stalemate' (when neither advocacy coalition within a subsystem wants to maintain the status quo). External events can change the attention of elites, shift resources to certain coalitions, provide a chance to change venues, or change the policy-core beliefs of a subsystem. The endogenous forces include policy-oriented learning, which 'refers to relatively enduring alterations of thought or behavioral intentions that result from experience and/or new information and that are concerned with the attainment or revision of policy objectives' (Sabatier & Jenkins-Smith, 1999, p. 123). Policy-oriented learning typically occurs at the secondary belief level, and may be facilitated by a 'policy broker' who helps opposing advocacy coalitions come together to foster compromise. This type of learning is indicative of the 'enlightenment function' of information utilization (Weiss, 1977). For the ACF, it is not necessary to overcome institutional positions and the culture, rules, and norms these institutions create; instead, it is the interaction between belief systems and scientific information that overcomes the divide between policy practitioners and politicians. According

to the ACF, this usually takes a period of at least ten years (although the demarcation of ten years is arbitrary).

Many long-standing criticisms of the ACF target its pluralistic assumptions of coalition formation and policy change. For example, the ACF has been criticized for its lack of comparative and institutional analysis, its over-reliance on exogenous shocks to explain changes in belief systems, its over-emphasis on belief systems as the source of coalition formation, and its too narrow definition of policy learning and information utilization (Fischer, 2003; James & Jorgensen, 2009; Parsons, 1995; Stritch, 2015). It was Parsons who recognized that these assumptions lead the ACF to make naïve conclusions about the politics of policy formulation: 'the model puts itself forward as a more realistic framework than the "stagist" approach, and yet in this regard the AC [Advocacy Coalition Framework] theory appears to be occupying a space somewhere in the land of Oz' (1995, p. 202).[10] In response, the ACF changed on the margins (for example, the hurting stalemate); however, these criticisms failed to expose the ACF's fundamental assumption that makes the gulf between the ACF's observations of policy-formulation politics and the practice of politics wider than ever.

A POLITICAL-ECONOMIC CRITIQUE OF THE ADVOCACY COALITION FRAMEWORK

With respect to its theory of policy formulation and change, the ACF represents a continuation of the post-behavioral era, but the ACF does not simply study the inputs of policy formulation at the cost of the outputs (that is, policy content). Instead, the ACF equates the inputs with the outputs. The ACF's fundamental epistemological assumption of methodological individualism causes the ACF to equate individual belief system change (the input) with policy change (the output). Regardless of the forces at work (and whether they are exogenous or endogenous), policy change for the ACF occurs when belief systems change; information utilization is recognizable not in the policy design itself, but in the change of belief systems. Major policy change is an enduring change to the policy-core beliefs of an entire subsystem, while minor policy change is a change in the secondary belief level (with no changes to deep-core beliefs). Change in individual belief systems (the input) becomes a proxy for policy change (the output). In other words, the individual always causes the policy change by changing their own minds, so there is little need to examine the content of policy designs. The ACF's incessant focus on individual belief systems as the causal mechanism of policy formulation to the point of neglecting political-economic or systemic causes is the hallmark of methodological individualism.

The assumption of methodological individualism that was at the core of the ACF from when it first appeared in the 1988 special issue of *Policy Sciences* was finally made explicit in 2015:

> The ACF is grounded in a modified depiction of methodological individualism; that is, individuals have agency-given contextual constraints and opportunities. Thus, belief systems and learning exist only at the individual level. When a phrase like 'coalition belief system' is mentioned, the term 'coalition' is used metaphorically or for convenience because coalitions do not have beliefs – only individuals do. Therefore, a single, coherent belief system that operates at the coalition or subsystem level does not exist in the ACF . . . In the ACF, agency is clear. Individuals make

change or stasis happens. Their action might be in reaction to events or information, they often operate in tandem with their organizations, and they are definitely affected by their contextual settings, but only individuals have agency . . . thus, the causal driver in the ACF is individuals and their belief systems. (Cairney & Weible, 2015, p. 94)

The ACF believes it can theorize a model of the individual that is universal and independent of the social, political, and economic structure he or she inhabits. In the language of methodological individualism, the individual is 'to be understood *fully* (complete with determinate behavioral models) and *independently* of the whole that their actions help bring about' (Varoufakis et al., 2011, p. 264, emphases in the original). Even though the ACF's model of the individual wishes to distance itself from the self-interested, rational individual of neoclassical economics, the ACF cannot escape the logic of neoclassical economics. The ACF still shares with neoclassical economics the foundational assertion that systems (for example, markets or policy subsystems) are constructed as aggregations of individuals, and that any change to the system's outcomes (for example, price shifts, unemployment, or policy change) derives from changes within the individual. In this respect, the ACF follows the creed of neoclassical economics – 'to deduce all such secondary concepts – supply, demand, price, investment, and growth, for example – from what it takes to be primary and the fundamental cause of the economy: individual human tastes and productive abilities' (Wolff & Resnick, 2012, pp. 59–60). The ACF deduces all secondary concepts of policy formulation – problem definition, goals, social constructions of target populations, rules, tools, and behavioral, normative, and technological assumptions – from the primary causal driver of policymaking: individual belief systems and the type of information these individuals are able to produce.

Both the ACF and neoclassical economics aggregate individuals into larger units based on shared preferences (that is, households or coalitions), and then characterize these larger units by their differences in tastes, preferences, and belief systems. For the ACF, even the policy subsystem (an aggregation of different advocacy coalitions) is defined by its difference and singularity, separate from the social structure it inhabits. Within and between advocacy coalitions in a subsystem, trade, information exchange, and compromise become characteristics of the macro environment. For the ACF, like neoclassical economics, policy elites should strive to 'improve the mapping of individual preferences into policy' (Jenkins-Smith, 1990, p. 39).[11]

Similar to neoclassical economics, the goal of the ACF is to reduce all barriers that inhibit the enabling institution from achieving its function. For neoclassical economics, the market as an institution achieves its function if prices are allowed to fluctuate freely to maximize wealth (Wolff & Resnick, 2012); for the ACF, the subsystem as an institution achieves its function if policy learning occurs to solve some of the most pressing problems facing the inhabitants of a certain locale. Much of the policy-learning hypotheses of the ACF concern the manipulation of subsystem settings and information presentation to achieve learning. The ACF hypothesizes that this learning could occur when both sides have the technical resources, the conflict is over secondary beliefs, the information is quantitative, based on experimental designs, and when the forum of discussion is 'prestigious enough to force professionals from different coalitions to participate' (Sabatier & Jenkins-Smith, 1999, p. 124). According to the ACF, the problems with policymaking are found within the psyche of the individual and his or her ability

to produce acceptable information for learning (as defined by policy elites); they are not found within the systemic factors identified by much social scientific research, including socio-economic conditions, campaign finance, lobbying, and the political economy of knowledge (for example, think tanks, academia).

As a result of its methodological individualism, the ACF pushes all systemic problems into its concept of relatively stable parameters. Sabatier (1988, p. 135) acknowledges these systemic problems (for example, the correlation of economic and political power), but describes the problems as mere facts of life that are exogenous forces on political strategy:

> Significant changes in the influence of various social groups . . . normally take several decades . . . [and] the political resources (or lack thereof) of many interest groups are slowly-changing 'facts of life' which actors within a subsystem must take into account in formulating their strategies in the short- or moderate-term. (Sabatier, 1988, p. 135)[12]

As a result, at least 75 percent of the research using the ACF does not incorporate systemic problems into its empirical investigation of policy-formulation politics (Weible et al., 2009, p. 132). Furthermore, advocates of the ACF have substituted the 'macro system' for Sabatier's socio-economic concept of relatively stable parameters, now referring only to the 'rules of the game,' such as a relatively open system of participation, separation of powers, and federalism (Weible et al., 2012, p. 6).[13] The lack of concern for systemic political problems extends to the ACF's advice to policymakers.

The ACF's adherence to methodological individualism leads it to make naïve claims and mistakenly diagnose the problems in the politics of policy formulation. Christopher Weible and Paul Sabatier, whose research agendas are aligned closely with the ACF, argue that the most important issues facing policymakers are individual in nature. In an effort to reconcile the over-dramatized division between policy analysis 'of' the process and policy analysis 'in' the process, Weible et al. (2012) extract advice for the policymaker from various models of policy-formulation politics (the ACF, punctuated equilibrium, multiple streams, institutional analysis and development framework, all of which are subsumed under methodological individualism). According to the ACF, the policymaker who wants influence should develop deep knowledge, engage in networking, and participate in the politics of policy formulation for an extended period of time, ten years being 'the magic number' (Weible et al., 2012, p. 15). Following this advice, the act of policy formulation can come closer to embodying a democratic ethic:

> If individuals, as citizens, want to serve democracy by influencing the affairs of a particular policy subsystem, then they should get to know the affairs and other individuals in that system and participate for extended periods of time. (Weible et al., 2012, p. 16)

This advice is meant for the 'typical citizen.' Advocates of the ACF argue that a lack of knowledge, lack of networking, and a focus on the short term are the most important problems to overcome if we are to achieve a democratic policymaking process. In other words, the barrier to democratic practice is found in the behavior of the typical citizen and not in the exorbitant amount of political money coming from a small percentage of people in our political system, or the other numerous systemic, socio-economic problems preventing the passage of rational policy solutions. Much like the failure of neoclassical economics to see the financial crisis and blame workers for unemployment and falling

incomes (as compared to the rising value of productivity) (for example, Keen, 2011), the ACF has yet to see the crisis of policy formulation in social, economic, and environmental policy and continues to blame the typical citizen for policy failures.

The ACF appears to focus on elites, ideology, and difficult policy problems, but it depicts a politics of policy formulation that is unrealistic because it resembles an application of neoclassical economics to policymaking, maintaining the neoclassical-economic mechanisms of change (individual belief-system change or exogenous shock). Adherence to these mechanisms ignores the fact that in the past 40 years in environmental politics – the specialized domain of the ACF – individual belief-system change (that is, policy-oriented learning) can occur without a corresponding policy change, and policy change can occur without policy-oriented learning. Deeper knowledge and networking, and participating in policymaking for a longer period of time, may have no effect on the odds of formulating and implementing solutions to our most pressing problems, and are not likely to rank high on the priority list of those involved in policymaking or those affected by public policy. Unfortunately, many of the new research questions asked by ACF scholars are insular and do not address the issues flowing from its assumption of methodological individualism (for example, Weible & Sabatier, 2006; Weible et al., 2009, 2011).[14] ACF advocates cannot achieve their goals of explaining intense policy disputes or promoting democratic ethics until they confront the material realities – the inequality, racism, and sexism – of our politics.

POLICY ANALYSIS FOR ACCOUNTABILITY

In April 2015, the now former Greek Finance Minister, Yanis Varoufakis, thanked the Institute for New Economic Thinking for its efforts 'to bring alt thinking back in the form of new thinking,' and in doing so, reminded us how old yet marginalized ideas can be quite powerful.[15] Scholars do not have to use the theories and models rooted in methodological individualism that regained popularity in the 1970s. Re-thinking and re-situating approaches to policy-formulation politics can bring attention to the often overlooked accountability function of policy studies. A 'policy analysis for accountability' has the potential to be an alternative to the ACF, and other models of policy formulation rooted in methodological individualism, by acknowledging the basic material realities of the policy-formulation system, answering questions that derive directly from these material realities, and informing the public of alternative possibilities.

Ruth Wilson Gilmore's (2011, p. 245) characterization of policy-driven research questions is a necessary but not sufficient condition for achieving a relevant study of policy formulation that cultivates a democratic ethos. She demands policy scholars answer: 'Why this? Why this, now? Why this, now, here?' (Gilmore, 2011, p. 245). These questions begin a new policy turn, demanding systemic thinking that links the content of policy (policy design) with the political, historical, and geographic elements of policy formulation that influenced the design's logic. The understanding of policy design ('why this?') requires more than simply reading the written text. It requires an uncovering of the difference between the stated goals and the actual goals of a public design.

'Why this, now?' and 'Why this, now, here?' refer to the timing, geography, and target populations of a design, and require knowledge of the policy-formulation process. Policy

designs are implemented in historical moments, when politics allows for these particular designs, or necessitates certain designs over others. Particular policy designs are implemented in certain geographic regions but not others, and in particular communities and not others. Gilmore demands that studies of policy formulation be cognizant of the racial, gender, and class differences that determine who receives certain policy designs and not others. While the social construction of target populations provides a firm foundation for this type of analysis (for example, Schneider & Ingram, 1993), more research is required to link racism, sexism, and classism to the policy-formulation process.

To answer the quintessential questions posed by Gilmore, one should start not from a model of the individual separate from the policy-formulation system, but instead from the workings of the system itself and from its material realities. Acknowledging the basic material realities of the policy-formulation system requires a recognition that the policy-formulation process is extremely costly and that most of that cost is paid by private entities who view their payments as investments. Thomas Ferguson's (1995) 'investment theory of politics' is the most accurate depiction of this material reality. The profit motives of wealthy individuals and large corporations prompt investment into political parties to obtain favorable labor, social welfare, and international trade policies. Many wealthy individuals and firms funnel money into non-profit foundations and think tanks to generate the information and mobilization necessary to pass favorable policy (for example, Ferguson & Rogers, 1986). As a result, to understand policy formulation, knowledge of the industrial economy (for example, the distribution of capital-intensive, internationally oriented firms; corporate rates of profit) is required.

Recent research has revealed the purchasing power of money in elections (Ferguson et al., 2015), in the legislative process (for example, Stratmann, 2002), and the general legislative reach of the wealthy in general (for example, Winters & Page, 2009). The effect of this financial support goes well beyond that of policy-oriented learning, to the point that stories, narratives, and fabrications trump science (Graetz & Shapiro, 2005), with policymakers ignoring majority opinion and siding with wealthy elites when their opinions differ from those of ordinary citizens (Gilens, 2012). Of central concern here is the role of policymakers and the wealthy in 'information management,' or the intentional shaping of information to conform to the concerns of the wealthiest individuals, corporations, and banks in our society (Werner, 2016, pp. 376–7). It is quite possible the public receives the policy designs that others pay for.

Using Gilmore and Ferguson as guideposts, a policy analysis for accountability must answer 'what could this have been?' Policy formulation is a political process of creating a policy design by narrowing an already small list of solutions. To study the politics of policy formulation is to study what could have been and what could be. This makes it incumbent on the policy scholar to share a vision of the future by reconstructing the alternatives lost during the design process. This type of work is crucial for a vast majority of the population who suffers or will suffer from conditions of inequality, environmental degradation, racism, and many other conditions that characterize our politics of policy formulation (Soss et al., 2008).

To those trying to formulate and implement solutions in the political process, the ACF recommends strategies to alter belief systems by quantifying information, disseminating information in ideal venues where actual learning can take place, or simply waiting for belief systems to change by an exogenous event (that is, focusing event) or by allowing the

status quo conditions to become so terrible that no party can let those conditions persist (that is, hurting stalemate). The solutions required for our environmental, financial, and social problems are urgent, however, and may require action from those outside the current system to create the conditions that can overcome the harsh realities created by our capitalistic system, which prevents adequate, humane policy designs from seeing the light of day. In other words, we must overcome the subsystem dynamics both within our theories and our politics.

NOTES

1. I would like to thank Thomas Ferguson, Cynthia Paccacerqua, Michael D. Jones, Daniel Chomsky, Clyde Barrow, Michael Howlett, Ishani Mukherjee, Libby Morgan Beri, Thomas E. James, and students in my graduate seminar on policymaking in the spring of 2015 for their influence and helpful comments.
2. Policy formulation can be a secluded and tedious process of 'identifying and/or crafting a set of policy alternatives to address a problem, and narrowing that set of solutions in preparation for the final policy decision' (Sidney, 2006, p. 79). The resulting policy design has a structure and logic consisting of problem definition, target populations and their social construction, goals, cost/benefit distributions, rules and tools to achieve those distributions, as well as normative, behavioral, and technical assumptions. In using the term 'crisis of policy formulation,' I am not referring to the long-standing problems identified by the policy-utilization literature (for example, the utilization paradox) (Shulock, 1999). These problems concern the issues of informing a policy design with policy analysis. The crisis of policy formulation allows for the fact that plenty of information is 'utilized' by suppressing the best policy designs. This type of utilization can range from 'information management' (Werner, 2016) to the 'epistemology of ignorance' (Mills, 1997).
3. Phil Angelides gave the keynote address at the 2015 Eurozone and the Americas Conference at the Lyndon B. Johnson School of Public Affairs at the University of Texas – Austin, https://www.youtube.com/watch?v=Z6ZgoJSmU60 (accessed 15 November 2016).
4. Recommendations for practitioners of policy design exist (Bobrow & Dryzek, 1987; Howlett, 2011; Schneider & Ingram, 1988); however, with some notable exceptions (Öberg et al., 2015), there are no attempts to reconcile this bifurcation between policy design and subsystem studies (James & Jorgensen, 2009).
5. This chapter's critique focuses on the ACF, but this critique applies to most models of policy-formulation politics, including punctuated equilibrium, multiple streams, and the institutional analysis and development framework. One of the primary advocates of the ACF and his colleagues write: 'The vast majority of research on the policy processes assumes that individuals, and not "collectives" (e.g., organizations, groups, or coalitions), are the agents who create or change policies . . . While this literature explicitly recognizes that individuals act within collective settings, it directs the reader toward first understanding how the minds of individuals work as a basis for understanding how individuals act collectively' (Weible et al., 2012, p. 4). For the following brief synopsis of the ACF, I draw on the numerous review articles over the last three decades: Jenkins-Smith (1988), Jenkins-Smith and Sabatier (1994), Pierce et al. (2016), Sabatier (1988, 1991), Sabatier and Jenkins-Smith (1988, 1993), Sabatier and Weible (2007), Weible and Sabatier (2006, 2009), Weible et al. (2005), Weible et al. (2009), Weible et al. (2011), Weible et al. (2012), and Zafonte and Sabatier (2004).
6. There are several dilemmas raised by Easton's claims that I cannot address in the space allotted, such as the division between political science (policy studies) and political theory, and whether the behavioral revolution was in fact a revolution in the Kuhnian sense. For a thorough analysis of these issues, please see Dryzek (2006), Ellis (1992), Farr (1995), Farr et al. (2006), Gunnell (1995, 1996, 2004, 2006, 2015), Ricci (1984), Torgerson (1985, 1986, 1992a, 1992b, 1995, 2006), and Tribe (1972).
7. It is not surprising that Schneider and Sidney (2009, p. 112) claim that many theories of policy formulation treat the content of public policy as a 'black box,' or have only a 'thin' understanding of this content.
8. The space constraints of this chapter prevent an attempt to agree with and explain the claim that the ACF is itself a heuristic that has failed to live up to the scientific standard set by Sabatier (1991) (see Pierce et al., 2016).
9. This is not a hard and fast rule. In an attempt to explain how elites conducting policy analysis using neo-classical economics will not result in anti-democratic policies, Jenkins-Smith (1990), one of the originators of the ACF, argues that policy analysis will not be utilized by legislators because of the log-rolling and back-scratching of politics. However, as the notorious high-priced wine and dine between Cliff

Asness (hedge fund manager), John Cochrane (economist) and Paul Ryan (politician) indicates, the two-communities metaphor may not be a correct way to describe the policymaking environment.

10. Responding to the claim that the ACF is too rooted in the US system of policymaking, ACF scholars cite numerous studies showing the ACF can transcend different cultures, government structures, and socio-economic environments (Weible & Sabatier, 2006, pp. 123, 132; Weible et al., 2009, p. 123). This should not surprise anyone familiar with methodological-individualist approaches. The ACF is thought to be a universal theory of policy formulation because change does not result from institutions, culture, rules, norms, or social relations under various types and contradictions of capitalism, but instead derives from the human psyche's processing of information and interpreting external events.

11. For this reason, consternation over the differences between policy analysis 'in' the system and policy analysis 'of' the system is overblown (Weimer, 2008).

12. The ACF's neglect of inequality, racism, sexism, and other harmful influences in policy-formulation politics may also stem from its confused interpretation of James Madison's *Federalist No. 10*. Weible et al. (2012, p. 16) write, 'the contemporary policy participant needs to take into account the Constitution's guarantees and the democratic ideals laid out by Madison and his Federalist No. 10, such as guarding the rights of minority populations (that is, protection from the tyranny of the majority) without letting such guarantees distort the political system (that is, protection from the tyranny of the minority).' These proponents of the ACF miss Madison's most important insights of American political economy, and as a result ascribe to Madison views that are not his own in that essay. *Federalist No. 10* is far from a democratic creed when read by a debtor.

13. Even Robert Dahl changed his mind about the 'rules of the game' and their relation to economic inequality. The ACF is moving in the opposite direction.

14. For example, 'the ACF has yet to define the minimum amount of coordinated behavior needed to define coalitions nor the effect of these cross-coalition interactions on policy subsystem outcomes' (Weible & Sabatier, 2006, p. 133).

15. Varoufakis's talk can be found at https://www.youtube.com/watch?v=6VgawuGXEMI&index=24&list=PLmtuEaMvhDZb-LqLV-uWDqwfaXlczAs_0 (accessed 15 November 2016).

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27. The impact of political parties, executives and political staff on policy formulation
Christopher Eichbaum and Richard Shaw

INTRODUCTION

The principal focus of this chapter is on policy formulation. In the sense of a linear public policy process characterized by identifiable stages, policy formulation is located in the space between issue identification or agenda setting and delivery or implementation of a policy (or programme) that enjoys the imprimatur of designated policymakers. We will not rehearse the range of contextual factors that influence policy formulation, as this has been done by other contributors to this volume. Suffice to say that – notwithstanding more collaborative and porous modes of governance and the increased salience and material influence of civil society – the process is one that is mainly the province of the political or administrative insider. It tends to be endogenous to the institutions of the state and in particular to the executive branch of government.

That executive branch provides the lens for this chapter. In simple terms, the executive is represented by a combination of political and administrative actors, variously configured and variously influential. More specifically, this chapter draws on scholarship on parliamentary systems, especially those that constitute the Westminster family of nations. One of the defining features of such Westminster systems is Walter Bagehot's efficient secret, with the cabinet (or political executive) being, to paraphrase Bagehot, the hyphen that joins or the buckle that fastens the executive and legislative branches of government. Westminster offends against the doctrine of the separation of powers in a most obvious manner. Accordingly, the executive is two-dimensional: a cabinet of political actors drawn from the assembly or parliament, and a cadre of politically neutral, expert and largely permanent public or civil servants tasked with providing advice that is conceptually and empirically robust but non-partisan. To anticipate the classical Wilsonian distinction that we draw on below, in its stylized form, the public or civil service provides the evidence and analysis while the political principals provide the politics.

We should add that this chapter is not blind to other forms of executive government. Indeed, while we take the notion of the core executive as a point of departure, and while this is a corrective to the kinds of Westminster narratives that privilege notions of cabinet government with hierarchical and linear qualities associated with the policy process, the core executive is but one element of a wider thesis. This thesis advances the superior analytical utility (and empirical relevance and validity) of a differentiated polity or a mode of governance (and a narrative) that is characterized by network governance. While network governance may have its progenitor in the perceived limitations of cabinet government and associated Westminster narratives, it speaks to modes of policy formulation across the full range of political systems, both parliamentary and non-parliamentary.

The core executive lens, which places primacy on function rather than structure or role,

provides a much broader canvas, and admits a wider range of actors (state, para-statal, non-state, civil society and supranational) and a more nuanced analysis than that provided by more traditional notions of 'cabinet' with their focus on the positional rather than the functional dimension of relationships between these actors, including in the dynamics of policy formulation. Moreover, while the composition of a core executive may well be fluid and contextual, with access to (or participation in) a temporary phenomenon for some classes of actors, the political party is consistent both in presence and influence. At the most obvious of levels, political decision-makers are, almost by definition, members of political parties (we note the occasional presence and influence of the so-called political 'independent', but suggest that the term is fundamentally oxymoronic). The party manifests itself in the badge and brand of the individual political actor; in the existence of formal and informal caucuses of those in assemblies and parliaments who are members of political parties; in the participation of the organizational wings of parties – formally and informally – within the core executive; in codified policy commitments, such as manifestos and platforms, bearing the party name and carrying the burden of the electoral mandate; in office holders who may well play a role in caucuses and kitchen cabinets; and not least in the active presence of political advisers, the advent of which has turned what was formerly a bilateral relationship into a more triangular one.

We first examine the provenance and relevance of the core executive to the processes of policy formulation, before noting the role of political parties, and then more closely examining policy formulation within executive government. We conclude with some observations on the lessons that may be drawn for both scholars and practitioners in the domain of policy formulation.

SETTING THE SCENE: CORE EXECUTIVE STUDIES

The particular approach to executive government we take derives from the core executive studies literature. The term core executive studies (CES) was coined by Dunleavy and Rhodes (1990), whose functional analysis of a distributed executive laid the foundations of the now-dominant lens through which arrangements within the executive branch of government are studied (Elgie, 2011).

CES emerged partly in response to frustrations with the orthodox Westminster narrative concerning the relative power of the prime minister and cabinet, and in particular with the tendency to equate executive power with hierarchical position. Eschewing this approach, CES scholars prefer to ask 'Who does what?' (Rhodes, 2007, p. 1247). This focus on function rather than location within a formal executive hierarchy enables the identification of a spectrum of actors involved in shaping and coordinating policy (prime ministers, ministers, political advisers, senior civil servants, central agencies and so forth). It also analyses executive power as a function of the tactical and strategic deployment of executive resources (expertise, status and influence, authority over budgets) within that expanded executive environment. In short, scholars in the CES tradition conceive of the exercise of executive authority as contested, fluid and relational rather than monolithic, fixed and hierarchical.

Within the oeuvre there are two broad approaches, one focusing on intra-executive relationships (with a focus on the baronial politics of the centre), the other on relations

between the core and other policy actors (such as political parties and organized interests) which seeks to understand how the capacity of the core to shape, coordinate and manage policy beyond the centre is constrained (Burch & Holliday, 1996; Elgie, 2011; Holliday, 2000; Laffan & O'Mahony, 2007).

There is a further division within the first of these approaches, reflecting two contrasting ontological and epistemological positions on the fundamental question of the bases of executive power. Bevir and Rhodes's (2006) differentiated polity model posits a granulated and fluid context for the conduct of executive government and governance. In essence, this model focuses on 'who does what' rather than 'what specific role or office is occupied'. The exercise of power is therefore contingent and context-specific, reflecting individuals' resource endowments, the mix and quantum of which is variable, and the skills with which they negotiate the court politics of the executive.

Conversely, the asymmetric power model proposes that the deployment of executive power is unequally distributed; power resides in both individual agency and institutional structures (Heffernan, 2003; Marsh et al., 2003; Smith, 1995). In this account, individuals' resources matter, but so does institutional location: occupants of certain positions have more (and more powerful) resources at their disposal than others. Exchange relations are thus asymmetrical in nature, and 'the key resources in the system lie with the prime minister and the chancellor of the exchequer' (Marsh et al., 2003, p. 308).

There are several advantages to adopting the CES approach in a chapter focusing on the role of executive and associated actors in the formulation of policy. For one thing, the broad CES lens enables us to move beyond a narrow concern with the prime minister and cabinet and to account for the contributions of a wider range of actors, including those – such as political parties – which are typically treated as exogenous to the core executive. Moreover, a concern with functions forces us to ask who does what in the messy business of shaping policy. This produces a richer, more nuanced account of this phase of the policy process than would be possible via a strict concern with constitutional strictures. Lastly, by attending to the relational dimensions of policy-making we draw attention to the vigorous trade in executive resources required to shape policy. While this market may be managed rather than fully free, a CES optic discourages explanations of actors' roles in policy formulation that map neatly onto their institutional locations. As a result, the story becomes less predictable, much more interesting and – although strictly speaking this is really an empirical matter – closer to what occurs in the material world of policy formulation.

POLITICAL PARTIES AND POLICY FORMULATION

The literature on political parties is voluminous and enjoys status as a discrete field of scholarship within political science (see, for example, Blondel, 1995; Gunther & Diamond, 2003; King, 1969; Koole, 1996; La Polambara & Weimer, 1996; Mair, 1997; Miller, 2005; Neumann, 1956; Panebianco, 1988; Rose, 1980; Ware, 1996; Weller & Young, 2000). The focus in this part of the chapter is on the role and influence of political parties in policy formulation.[1]

We have already noted that political parties are active participants within the core executive in a variety of ways, and contribute through both formal and informal mechanisms.

As a discrete class of actor, political parties occupy a privileged position as the vehicles through which policies are formulated. Arguably the role of political parties within the context of the core executive is one of contributing to policy formulation once a policy has met the threshold tests associated with inclusion on a policy or political agenda, and the decision/non-decision choice that policymakers – as distinct from formulators – have the authority to make.

What then of the role of political parties in policy formulation? At one level it is generally accepted that political parties are constitutional actors. As such, in a liberal democracy, a robust constitution or constitutional arrangements grant political parties the organizational capacity to advance the policies, projects, manifestos and platforms that are joined in the electoral marketplace; provide substance to the electoral contest; and provide legitimacy to the political and electoral system by way of a mandate between party (or parties) and citizens.

Much of the scholarly literature on political parties seeks to provide ideal typologies as heuristic devices, allowing parties to be differentiated according to different endowments of form and function. The accepted definition of a political party is that parties aim to exercise government power by winning office. They differ from social movements or 'pressure groups' by having an organized membership and a broad focus across a range of issues, with the membership and leadership informed by a shared ideological worldview (Heywood, 2002, p. 248).

However, clearly there are political parties that are active participants in electoral processes but which do so with no expectation of securing office. For parties such as these there is a confluence between policy formulation, articulation and agenda setting. Such parties may have a limited political shelf-life or can be more enduring, but they tend to focus on a single political/policy issue.[2]

Typically, the classification of political parties occurs by locating those parties within an ideological or philosophical topography. It is still the case within most liberal democratic regimes that ideology is an important marker of a political party. Moreover, it is also the case that, in general terms, these ideological markers signal the general thrust of policies promoted by those parties.

Generalization comes with its risks, but one can safely assert that parties on the left of the spectrum policy are informed by a benign view of the state, perhaps even a vision that the state is a force for economic and social development. Conversely, on the right of the political spectrum there is likely to be a more benign view on the role of markets in maximizing welfare and liberty. Notions of convergence (particularly in two-party systems) notwithstanding, policy-making may at times result in there being little difference between parties seeking to secure the support of the median voter, but it is still the case that parties carry with them policies that provide clear ideological or philosophical markers.

Ideology set to one side, it is possible to identify different types of political parties. The long-standing distinction between parties of 'representation' and parties of 'integration' (Neumann, 1956) continues to be relevant and has clear implications for how policy is formulated and articulated. Typically, parties of representation focus on maximizing the share of the vote by framing policies around the preferences of voters. Such parties are poll-driven and more likely to adopt a reactive policy stance, reflecting rather than shaping public opinion. By contrast, parties of integration tend to seek votes based on a clearly articulated programme that has its provenance in philosophy and principle,

appeals to the electorate on the basis of 'conviction' politics, and seeks to use the political and electoral contest to educate and mobilize voters through a proactive rather than reactive policy stance. If there is representation through integration, it is representation of a Burkean kind.

In the first case, policy formulation risks being populist and poll-driven; on the upside the electorate will be neither discomforted nor surprised, and will have its existing preferences affirmed. In the second case, the risk is of remaining so true to principle (notwithstanding the preferences of the electorate) that neither voter support nor the opportunity to govern are secured. The opportunity, it might be argued, is for transformative change underpinned by a conscious and active mandate.

A further distinction can be made between the 'mass' party and the 'catch-all' party. The former is characterized by a coherent ideological programme; an approach to policy-making premised on the active participation of party members; a tradition of policy activism; links – sometimes formal – with particular socio-economic interests within the economy and the society; and a strong sense of identification or even a sense of ownership between supporters/members and the party. The traditional 'labourist' party characterized by an industrial and political wing nicely illustrates this kind of arrangement.

By contrast, the 'catch-all' party places less weight on matters of ideology; leadership of policy tends to be the prerogative of the party leadership (typically in the political wing of the party); and identification and formal connections with particular socio-economic links are eschewed in favour of a broad appeal (or mass tent) approach and engagement with a variety of interest groups. Parties of this kind may well view voters as being of a 'free range' kind (rather than a committed activist membership base) – non-committed potential consumers open to persuasion (if only on an election-by-election basis).

A further contrast may be seen between parties of the mass-bureaucratic (see Wolinetz, 2005) kind and those characterized by the professionalization of functions and the use of sophisticated techniques for voter and preference identification and political/electoral messaging. However, the reality is that in advanced liberal democratic societies – and from time to time in insurgent movements in non-democratic societies – digital technologies and platforms (complemented in the former by the ubiquitous 'focus group') are a common feature of contemporary politics, elections and/or political movements.

The reader reflecting on developments in contemporary politics, on election or primary selection processes, on party leadership changes and on the processes of policy formulation (and shaping or turning points in that process) will find ample empirical referents. Reviewing those developments is beyond the scope of this chapter, but we note in passing an interesting dualism (some would say tension) in contemporary political contexts. On the one hand is an activist-based approach to participation in political parties which, depending on their rules and constitutions, can have a direct impact on policy platforms and on leadership. This in turn can be contrasted with, or may be perceived as a remedy to, declining rates of participation in politics (for example, by means of party membership) and voter turn-out.

Policies may be more permissive than prescriptive, and the former may well be consistent with notions of an 'authorizing environment' within which public officials co-produce public value (see Alford & O'Flynn, 2012; Moore, 1995), but the question remains whether constitutional, electoral and political processes (and not least political parties within this broad context) provide a means of translating citizen preferences into policy agendas,

outputs and outcomes. That requires us to explore the political economy in which parties are located and operated and the extent to which they – and the state structures that they populate from time to time – are consistent with the benign and noble sentiments associated with classical pluralism (Dahl, 1961).[3]

THE EXECUTIVE AND POLICY FORMULATION

At this point our attention turns to the role of executive actors – political and bureaucratic (and, apropos of the latter, both partisan and professional) – in the formulation of policy. In a sense this is a shift in focus from determinants in policy-making that are largely exogenous to the executive branch to those which are endogenous. We begin this section by considering the utility of standard understandings of the policy process in light of the advent of political advisers. We then examine several of the seminal typologies that explain relations between the political and administrative executives in the context of the policy process, and explore recent theoretical thinking seeking to make sense of the impact of political advisers on roles and relationships within the executive branch of government.

The term 'executive' incorporates both the political and administrative (or bureaucratic) arms of the executive branch. Consistent with the position we take on the core executive throughout the chapter, our concern is with all of those executive actors and institutions which 'pull together and integrate central government policies, or act as final arbiters within the executive of conflicts between different elements of the government machine' (Dunleavy & Rhodes, 1990, p. 4). The primary consequence of this epistemological position, as shall become clear, is that we eschew the orthodox focus on bilateral relationships between ministers and senior public or civil servants of a permanent kind in favour of a view of the contemporary executive as an institution comprising three elements: senior politicians, top officials and political (or ministerial) advisers. A second consequence is a focus on the interplay between a range of different executive actors involved with pulling together, integrating and deciding on policy. To understand the executive context of policy formulation, we need to explore the roles and respective contributions of the three different categories of executive actor, and the relationships between them. Those relationships play out in a dynamic terrain that is sometimes captured by the notion of the 'policy process'.

The Policy Process

The standard approach has long been to conceive of policy-making as a process comprising a series of more or less discrete stages, and thence to describe the various tasks associated with each. If policy formulation is defined as meaning the design and legitimation of governments' goals and programmes, it is (deceptively) simple enough to identity a series of related activities: the collection, analysis and dissemination of information; the development and testing of alternative policy interventions; the construction of coalitions of support for one or another option; and a discursive process of compromise and negotiation resulting in a policy decision (Ripley, 1985/1995, p. 158). Within that broad framework it is conventionally assumed that detailed design work is undertaken by

technically proficient bureaucrats, while the business of building coalitions of the willing is the preserve of elected officials.

In this respect the stagist model permits descriptive clarity. We can say with some confidence, for example, that this is the sequence of events through which policy is formulated in the executive, and these are the contributions the various actors make.

But there is a downside to this approach to policy formulation (and the wider policy process). For one thing it rests on a forced conceptual distinction between agenda setting and policy formulation (which must then be repeated in the subsequent stages of decision-making, implementation and evaluation). It also requires both a leap of faith (that the executive branch is a unified and relatively stable institution) and an act of denial (regarding the sometimes contrasting interests and motives of different executive actors). In short, the model is largely silent on the values informing different executive actors' contributions to the work at hand, and thus provides little or no guidance on the innately political nature of framing policy within the executive, which is characterized by the contingent exercise of power, the exchange of resources, and the ebb and flow of influence.

This approach poses clear difficulties to understanding the respective roles of the political and administrative executives in shaping policy. For instance, policy issues must be framed in ways that render them amenable to purposive intervention: is that the proper responsibility of elected representatives or the preserve of officials with the requisite technical expertise in policy design? Who should determine the aims and priorities of policy programmes: those who will be held politically accountable by the citizens who are the recipients of policy interventions, or those with knowledge of intervention logics and chains of causality?

From Politics and Administration to Images and Ideal Types: Elected and Appointed Officials

Clearly, then, the orthodox view that politicians make decisions between policy options crafted by their bureaucrats is a fiction. In essence, we need to address Lindblom and Woodhouse's question: How can government be organized to locate power and wisdom in the same place? (1993, p. 23; cited in Hill, 1997, p. 99). Perhaps the most well-known response to that question belongs to Woodrow Wilson, who proposed that it is the proper responsibility of elected representatives to take policy decisions and that of a disinterested bureaucracy to design and implement the requisite policy programmes. In short, in Wilson's formulation it is the prerogative (and burden) of political executives to determine *what* is to be done, and the obligation of professional administrators to determine *how* such decisions are to be executed. The former legitimately exercise the power that stems from holding elected office; the latter contribute the wisdom – the judgement, discretion and knowledge – that comes from expert training and experience.

Wilson's conception is compatible with the stagist model referred to directly above, and his politics/administration dichotomy retains considerable normative appeal (not least amongst political executives, for many of whom a politically disinterested bureaucracy would be a very fine thing indeed). Yet this approach masks the innately political – that is to say, normative – nature of the policy-making process. In part this criticism reflects the Weberian view that 'no action or problem is so technical that it is without political content' (Lee & Raadschelders, 2008, p. 421). It is also an acknowledgement of the

empirical evidence that formulating policy is always a series of contested encounters between political and bureaucratic actors (Gregory, 1989). The received wisdom may well be that politicians propose and officials dispose, but in practice things are fuzzier than this standard formulation allows: politicians take a keen interest in the details of policy design and implementation (which for most citizens are the most concrete and direct experience of 'government') and bureaucrats are rarely disinterested in the politics required to secure support for their proposals and initiatives.

Various typologies have been put forward in an attempt to capture the nuances – and the different configurations – of relations between elected and appointed officials in the context of policy formulation. One of the most influential is Aberbach, Putnam and Rockman's (1981) four 'role images' of political-administrative relationships.[4] The first image is that of the politics-administration dichotomy proposed by Wilson. Image II is broadly similar but identifies a particular calculus of compromise on the part of elected politicians; the suggestion is that politicians' sensitivities to the interests of external constituencies distort what might otherwise be 'rational' policy formulation. Image III, which at the time Aberbach and Rockman saw as the dominant modality, conceived of policy-making as the domain of both political and administrative actors, but on the basis of different types of engagement:

> [w]hile in a grand sense, politicians still directed policy change, bureaucrats by their detailed knowledge of programmes and of relevant policy ideas, often provided the 'solutions' for politicians to pick from the shelf. Especially relevant . . . is the idea that bureaucrats' knowledge of both programme detail and the specific concerns, relevant to their responsibilities, or organised interests virtually required them to conduct the politics of small-scale policy adaptations. In sheer volume, this would mean 'most adaptations'. (1988, p. 4)

However, as we have noted elsewhere (see Eichbaum & Shaw, 2010, p. 201), Aberbach and Rockman found evidence of a hybrid model that changed in status from the informal to fully institutionalized. At its core there are two dimensions. The first involves a distinction between 'officials' of the Northcote and Trevelyan kind imbued with an obligation to 'speak truth to power' and those for whom a duty pro bono publico is less a consideration than an obligation to operate in an explicitly partisan mode. The second, related dimension involves the distinction between responsible competence (aligned with the Westminster mode of engagement between political and administrative actors) and responsive competence. The tension between responsive and responsible advice (or competence) is sometimes captured in the distinction between the provision of advice that a government wants to hear and that advice that it needs to hear.

The prevailing view (see, for example, Mulgan, 1998) is that the public or civil service discharges its obligations when it provides both responsive and responsible competence; that too much of the former can result in a 'promiscuous partisanship' and too much of the latter behaviour reflects vested bureaucratic interests. Such behaviour is motivated by the desire to protect the institutional and policy status quo ante. What Aberbach and Rockman found was evidence of a hybrid – their Image IV – and it is to this ideal type, and the implications for policy formulation, that we now turn.

Enter the Political Adviser: Roles, Relationships and Contributions

Wilson's conception of the politics-administration dichotomy – Aberbach, Putnam and Rockman's Image I – is still the model that many 'real world executives (especially political executives) carry with them into their work' (Peters, 1987, p. 259). But in a material sense, times have changed: in recent years many jurisdictions have experienced an increase in the number and influence of political advisers to whom ministers turn for partisan advice. As a consequence, what was once a bilateral relationship has arguably been superseded by a triangular relationship involving ministers, political advisers and officials – and this has had significant consequences for the nature of policy formulation within the executive branch.

A functional role for the partisan adviser was presaged by Aberbach et al.'s Image IV, particularly as adapted by Aberbach and Rockman (1988). More specifically, Aberbach and Rockman entertain the institutionalization of that role within the core executive in the interests of better aligning the activities of bureaucratic agents with the preferences of political principals. Indeed, many countries have experienced the accelerated development of intra-executive processes and structures – what Lindquist (2006) has called 'unitization' – which has shifted the provision of partisan advice from the periphery (Craft & Howlett, 2012) into the core executive environment.

In some jurisdictions, of course – principally those within the Napoleonic and Germanic traditions which have long experience of ministerial cabinets – professional and partisan advisers have long coexisted. To some extent, therefore, the increase in the presence and influence of political advisers is particular to parliamentary democracies in the Westminster and Scandinavian traditions. Whatever the case, it has attracted considerable scholarly attention in recent years (Eichbaum & Shaw, 2010; LSE GV314 Group, 2012; OECD, 2011; Shaw & Eichbaum, 2015; Tiernan, 2007; Yong & Hazell, 2014), a good deal of which seeks to specify the contribution that advisers make to policy formulation (and to policy-making more generally) and the attendant consequences of this for relations within the core executive.

Political advisers – whose core role might be said to be to 'act as an extension of the minister's political personality' (Dooney & O'Toole, 1998, p. 41, cited in Connaughton, 2010b, p. 163) – engage in a wide range of different activities, including looking at officials' advice through an explicitly party-political lens; leveraging external networks and engaging stakeholders in building coalitions of support (or opposition); providing a bridge between government and party; and on occasion providing technical expertise (not all political advisers are 'promiscuous partisans'). Two scholars, in particular, stand out for their attempts to categorize these and other activities in ways that directly illuminate the contributions that political advisers make to policy formulation. Following Colebatch (1988), Maley's (2000, 2011) typology combines 'vertical' and 'horizontal' dimensions to policy-making (and has recently been extended (Maley, 2015) to accommodate advisers' agency in three arenas: working with the department, with other ministers and with stakeholders). The former comprises interactions between ministers, political staff and officials; the latter policy-related interactions between stakeholders within *and* beyond the core executive. In both dimensions political staff play important roles. For instance, their institutional proximity to ministers and access to internal and external networks means they are well placed to contribute to the policy agenda of the government of the

day. Their location at the political centre also enables advisers to link ideas, interests and opportunities – and to mobilize support for (or opposition to) particular options and initiatives – with material consequences for shaping policy.

Maley points out that, contingent upon circumstance, political context and/or personal attributes, political advisers engage with these different aspects of policy formulation either passively, actively or very actively. Connaughton (2010a), too, draws attention to the variable nature of political advisers' input into policy formulation (although unlike Maley she emphasizes competence rather than disposition). Connaughton's four-part role typology distinguishes between experts, partisans, coordinators and minders; clearly, any given adviser may be required to perform one or some combination of these roles depending on the particulars of the issue at hand.

Both typologies illuminate the context-specific and contingent nature of the contribution that political advisers make to policy formulation. Both also speak directly to Dunleavy and Rhodes's functional definition of the core executive, drawing attention to the functions carried out by advisers in the context of shaping government policy. Perhaps the most central of these functions is the role of broker. In Dunleavy and Rhodes's terms, the relational and structural endowments enjoyed by political advisers enable them to 'pull together and integrate' the contributions of others in the context of policy formulation (and in the wider policy process).

To the extent that there may be a tension between responsible and responsive competence (or finding the correct balance between the two), typically the role of the political adviser is to maximize responsiveness. It is a signal feature of the political adviser's function that responsive competence is privileged. But it is this element of the role that causes the most consternation, particularly as regards the impact of political advisers upon relations between core executive actors. In the context of policy formulation, one view (Eichbaum & Shaw, 2007a) is that by attending to the partisan imperative, political staff can reduce what might otherwise be pressure on the permanent bureaucracy to do the same, freeing officials to focus on matters of technical competence (see also LSE GV314 Group, 2012). The alternative view is that the presence of the partisan voice amplifies the risk of politicization of the permanent public or civil service, with attendant consequences for both the substantive and procedural dimensions of policy formulation.

Elsewhere we have coined the term 'administrative politicization' to capture the nature of the real or alleged material risk to bureaucratic impartiality (Eichbaum & Shaw, 2008; see also Hustedt & Salomonsen, 2014). Administrative politicization has two dimensions. Political advisers offend in a procedural sense when they engage in conduct that is 'intended to or has the effect of constraining the capacity of public servants to furnish ministers with advice in a free, frank, and fearless manner' (Eichbaum & Shaw, 2008, p. 343). Put another way, the issue here is the extent to which advisers' activity affects the relationship between ministers and senior civil servants – either by interfering in the relationship between a minister and his or her officials or in the internal workings of a department. The risk is that by impeding civil servants' access to the minister, political advisers render the civil service marginal to, or indeed exclude it from, the process of shaping policy. The empirical evidence on the issue is mixed, but to the extent that such obstruction occurs – that is, if responsive competence wins out over technical competence in a zero-sum game – the quality of policy formulation is likely to suffer.

The substantive dimension of administrative politicization describes 'an action intended to, or having the effect of colouring the substance of officials' advice with partisan considerations' (Eichbaum & Shaw, 2008, pp. 343–4). In other words, it has to do with the content of the advice that flows into ministers' offices from departments. Walter (2006) has noted a potential 'funnelling' effect whereby advisers require officials to provide advice reflecting the minister's (or the government's) ideological agenda. The risk is that 'if an adviser seeks to inject political trade-offs too early in the policy development process they can significantly undermine and compromise the robustness of the process and integrity of the outcome' (Eichbaum & Shaw, 2007b, p. 455).

CONCLUSION: LESSONS FOR POLICY FORMULATION

This chapter has traversed a broad terrain and a range of literatures within the ambit of political science and public administration. Our primary focus has been on the executive branch, or the core executive, and our thesis has been that, viewed through the lens of the core executive (as distinct from the narrower conception of 'cabinet' as the prime locus of executive government), the processes of policy-making admit a much wider range of actors. Moreover, we contend that policy-making within this arena, which is one in which political parties are active participants in their own right and political considerations and agendas are prosecuted by a new class of actor – the political 'official' – policy-making is highly contingent.

Policy formulation is a function of context-specific relational considerations (with due attention to locational considerations) including, among others, resource inter-dependencies. While we have outlined some broad parameters that explain different combinations of relations, the explanation of particulars is properly an empirical matter.

Political parties matter because they provide, on a constitutional basis, the vehicles through which citizens make choices regarding representation. This is at the heart of the liberal constitutional paradigm that asserts the primacy of a contract between citizens and the state. The state is afforded legitimacy by the consent of the citizens. Using the metaphor of the market, it is political parties that provide the policy options from which citizens get to choose. Some political parties are comfortable simply meeting market demand – identifying and then responding directly to consumer preferences. Others seek to shape or nudge those preferences. But the political or electoral market is an imperfect one. States seek to regulate it in various ways, and interests – variously benign and vested – attempt to influence the policy 'product range' that political parties have on offer. For some this is simply a consequence of the application of marketing to political and electoral processes. For others it is about the structural and institutional drivers and manifestations of the political economy writ large.

Sources of advice also matter: for example, there is comparative evidence suggesting that the nature and extent of welfare cuts reflect whether governments seek advice pre-dominately from partisan or professional sources (Dahlstrom, 2011). More specifically, executives need to strike an appropriate balance between responsive and technical competence in the process of formulating advice. A public service that is wholly insensitive to the agenda of the democratically formed government of the day is beyond democratic control; a permanent bureaucracy that is wholly obedient to the partisan proclivities

of the political executive constitutes the reverse problem – that is to say, a 'politicized' environment in which truth is not spoken to power. The question, then, is one of judgement and balance. Appropriately socialized and regulated, partisan advisers can help that balance be struck within the core executive. Where some see contestability others see politicization. In the final instance, however, political agendas are established (and actively managed) and political and policy decisions will be made. In policy terms there is conception and there is execution – and the core executive is one of the principal terrains in which both occur.

NOTES

1. See chapter 9 in Shaw and Eichbaum (2011) for an introductory overview of the role of political parties in the policy process, with a specific focus on the New Zealand context.
2. An example is provided by political parties in a number of jurisdictions whose *raison d'être* has been the decriminalization of marijuana for personal consumption. Increasingly one finds that this issue is not only incorporated into the broader agendas of established parties but has also made the transition from a once-controversial policy proposal to implementation, in an increasing number of jurisdictions, as a legitimate element of the contemporary public policy mix.
3. One recent piece of research provides pause for thought and concern regarding the extent to which institutional arrangements do allow for the translation of citizen preferences into policy. Gilens and Page explore whether average citizens, economic elites and organized interest groups have the influence over US public policy that they are generally presumed to have. They conclude that 'In the United States, our findings indicate, the majority does not rule – at least not in the causal sense of actually determining policy outcomes. When a majority of citizens disagrees with organised interests, they generally lose. Moreover because of the strong status quo bias built into the US political system, even when large majorities of Americans favour policy change, they generally do not get it' (2014, p. 576).
4. Other significant contributions are from Peters (1987) and Hood and Lodge (2006). The former identifies four ideal types. Peters similarly identifies four types. The first is consistent with Wilsonian orthodoxy; the 'village life' model proposes an environment in which the boundaries between political and administrative elites are to all intents and purposes dissolved; the functional model is one in which political and bureaucratic actors within specific policy domains compete for resources with colleagues in other sectors; and the adversarial model presumes conflict between political and administrative executives based on competing preferences and motives. Hood and Lodge's framework of public service bargains (PSBs) illuminates the different compacts under which appointed public servants receive certain guarantees regarding employment, reward and responsibility in return for furnishing elected politicians with loyalty and competence. Trustee bargains grant civil servants a measure of institutional and operational autonomy in return for providing technical expertise to the government of the day. Under agency bargains, conversely, officials are expected to do the 'bidding of the politicians for whom they work' (Hood & Lodge, 2006, p. 53).

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28. Mechanisms of influence: interest groups, lobbyists and policy formulation
John C. Scott

INTRODUCTION

How do interest groups influence policy formation? This is a fundamental question in policy studies – and in democratic societies – because it combines issues of power, money and representation, among others. The difficulty for scholars and citizens alike is that the influence of lobbyists and interest groups is difficult to study as well as to theorize about. While we know that lobbying affects policy, lobbying usually has the most effect at the least visible stages of policy development. Moreover, the policy environment is a complex mix of groups and other policy actors who often shift among policy venues. This chapter presents mechanisms by which lobbying affects policy formation both through standard theories of policy formation – such as punctuated equilibrium and the multiple streams approaches – as well as through emerging ideas such as social network processes.

This chapter adds a new approach to theorizing about how interest groups affect policy formation. Politics is inherently social, and agenda setting is in part a social process in which interest group organizations influence each other in a complex and dynamic environment. Interest group relationships matter for policy agendas and policy formation. For example, the choices of one lobbying organization affect the choices of another organization. In addition, policy domains often exhibit a skewed distribution in which a handful of bills attract a great deal of interest while the vast majority of bills receive little attention. How does this pattern come about? How are legislative choices being influenced? Lobbyists working in a crowded and dynamic policy domain may use their relationships with other lobbyists in order to learn about and assess legislative proposals and develop their agendas for policy change. The social capital that inheres in such relations facilitates both the willingness of a lobbyist to share their informed judgment and the willingness of the other lobbyist or policymaker to give credence to such information. Policy agendas develop not so much through elite consensus or through the aggregation of independent choices but rather through social processes that rely on relationships, social capital and trust among policy actors who work in close-knit communities.

The discussion in this chapter begins with a brief background discussion on standard policy formation theories from the perspective of interest group participation. This discussion is not a complete catalogue of all policy formation theories, but the ones I discuss are among the most important in the public policy curriculum. I then provide another brief background on standard theories of interest group influence with a focus on exchange. In both of these discussions I highlight the importance of the policy agenda as developed by interest groups. I then focus on social mechanisms for interest group influence in policy formation. These social mechanisms require certain assumptions that I detail.

POLICY FORMATION AND INTEREST GROUPS

Public policy studies have incorporated a number of theories of policy formation, and interest groups are a key part of many of these theories. In this section, I briefly review two leading theories or approaches to explaining the process for making policy – the multiple streams approach and the punctuated equilibrium approach – and highlight how interest groups influence policy. I also identify gaps in our understanding of influence processes. This discussion provides a backdrop for the subsequent discussion of the mechanisms by which interest groups influence policy.

The multiple streams perspective is a deliberate attempt to incorporate both randomness and the role of large numbers of policy entrepreneurs in the formation of policy agendas. The multiple streams reference is meant to evoke the idea that policy change occurs when the three streams of policy solutions, problems and politics are coupled together. Each policy area has a large number of actors or policy entrepreneurs who are seeking to influence the policymakers' agenda with their own preferred policy solution. As Kingdon (1995) notes, these policy entrepreneurs continuously shop their ideas such that policy solutions are often in search of a problem, and not the other way around. Layered on top of these social interactions is a constantly changing mix of policy problems as well as disruptions in the form of both predictable and unpredictable events that provide windows of opportunity for entrepreneurs to proffer their solutions. Policy entrepreneurs influence the policy agenda when they can successfully couple their preferred solution to a salient problem in a way that is politically possible. What is unknown in the multiple streams approach is when a policy entrepreneur will be successful and why.

In contrast to the micro perspective of multiple streams, punctuated equilibrium is a macro approach that looks at policy formation over a long period of time. Punctuated equilibrium seeks to explain why policy change can occur suddenly and dramatically as opposed to incrementally. Fitting itself to observed data, punctuated equilibrium proposes that policy largely goes through long periods of stasis in which very little change occurs, but this stasis is interrupted – punctuated – by bursts of large-scale change. Like the multiple streams approach, punctuated equilibrium focuses on policy areas or domains in which forces resist change by (usually) external actors until some event, much like Kingdon's windows of opportunity, overcomes the innate resistance to change.

Each of these approaches provides a connection to interest groups, and each seems incomplete in terms of the mechanisms by which interest groups operate within these approaches. The multiple streams approach focuses on policy entrepreneurs who may be lobbyists but may be other policy actors as well. The multiple streams approach provides some detail on what the policy entrepreneurs do, or try to do, but largely sees these actors as atomized and does not provide any sense of how they work with or against each other. The punctuated equilibrium approach is largely centered on interest groups operating within policy areas, and it makes clear that interest groups are both pushing on each other and also cognizant of what other groups are doing in the policy space. But neither approach suggests how groups work with or against each other. In general, we cannot infer very much how influence operates across the two approaches to policy formation.

STANDARD THEORIES OF INTEREST GROUPS: EXCHANGE AND INFLUENCE

In addition to these major approaches to policy formation, various theories or approaches to lobbying influence have been developed outside the policy formation literature. In particular, I focus on socially oriented ideas about lobbying and interest groups that may be relevant to policy formation. A basic idea to start with is that of bargaining or exchange between two or more actors. A bargaining situation in a policy context might be viewed as one in which actors exchange political resources in an arm's length transaction (for example Becker, 1983; Holyoke, 2009). In this view, the lobbying process is a market exchange in which lobbyists representing firms and industries receive policy outcomes like votes in exchange for payments in the form of campaign contributions or even bribes to policymakers (Stigler, 1971). Some political scientists use an exchange perspective to provide a somewhat different and more nuanced perspective on influence. Wright (1996), Hansen (1991) and Ainsworth and Sened (1993) generally argue that lobbyists exchange information for access to or influence of legislators who look for information that will reduce the legislator's uncertainty about the political environment. In this line of work, Wright highlights the importance of strategic uses of information.

But some political influence theories extend the bargaining and exchange approaches to get to a general recognition of the importance of relationships in policymaking. A classical attempt to explain lobbyist activities using relationships includes the 'Iron Triangle' or sub-government model, which claims that small sets of political actors working in impermeable, long-term relationships set policy by consensus (see, for example, Cater, 1964). The key actors may be the chair of a congressional committee, the head of an agency and the president of a trade association, and these actors would agree on policy outcomes. The sub-government model might be still applicable in cases where the policy area is relatively small and discrete, but scholars have recognized that political relationships are now more permeable, numerous and transient than the sub-government concept allows (Heclo, 1978; Heinz et al., 1993; Hula, 1999; Lowi, 1969).

At least 30 years ago, scholars noted the expansion of interest groups in Washington, DC, and the broad issue scope of these groups (Heinz et al., 1993). Most policy domains are comprised of a variety of issues and with varying complexity and coherence. A policy space with a diversity of interests that seek out issue niches will appear to be fragmented, but a policy space dominated by a few interests will force attention to a more restricted set of issues, thereby increasing the chances for policy coherence (May et al., 2006): 'The crowding of the issue space for a given policy area is not as important for policy coherence as is the degree to which attention is focused on a smaller set of issues' (May et al., 2006, p. 383; citing Baumgartner & Jones, 1993). Heinz et al. (1993) noted that many interest groups face a great deal of uncertainty despite a highly structured organizational environment. They theorized that the sources of uncertainty include not just the number of groups but also the increasing number of proposals vying for attention, the difficulty in defining preferences, and the lack of a central set of mediators that could broker deals. Heinz et al. (1993) concluded that many groups devoted substantial resources just to monitoring events and other interest groups – in effect, the uncertainty inherent in the policy-making process made groups dependent on information. But they did not explore

the micro-level processes of information gathering and influence as lobbyists attempted to develop and refine their lobbying agendas.

The 'issue network' views interest groups as independent actors who move in and out of loose issue-focused networks and without the presence of core players around which stable networks would attach (Heclo, 1978; Heinz et al., 1993). However, research has shown a lobbying group that has a long tenure is often successful with lobbying an executive branch agency because such a group will likely be of use to the agency in the future (Costain, 1978). Informal social relationships in lobbying exist and can serve useful ends (Chubb, 1983; Milbrath, 1963).

While these exchange and relational perspectives provide important insights into lobbying and influence, they do not tell us why policy actors usually interact on a regular and even predictable basis with one another. There is little 'free-riding' in many policy areas. When scholars model human interactions in the social sciences, they often assume that actors maximize self-interest such that any interaction is conducted in arm's length transactions. One reason for this is to achieve parsimonious models and another reason is that such models are often tractable for quantitative analysis. As a result, models of lobbyist-legislator interactions are quite formal in nature yet not quite realistic.

Relationships and networks matter for policy making in a number of ways, and the number of network-based political and policy studies is growing (Heaney & McClurg, 2009; Robbins, 2010). For example, network analysis has been used to explain legislative bill co-sponsorship (Cho & Fowler, 2010), party cooperation across competing interest groups (Grossman & Dominguez, 2009), and social movement cooperation across coalition boundaries (Heaney and Rojas, 2008). But trust, developed through repeated interactions in the policy domain, matters a great deal in these interactions (Berardo & Scholz, 2010; Heaney & McClurg, 2009). Many lobbyist relationships are infused with social content that incorporates memory and history with an expectation of future interactions. Policy areas as interconnected relationships give rise to expectations of behavior. In the discussion that follows I apply these theoretical ideas to the development of lobbyist agendas.

LOBBYISTS AND THE SOCIAL PROCESS OF AGENDA DEVELOPMENT

According to Kingdon (1995, p. 5), an agenda is 'the list of subjects or problems to which governmental officials, and people outside of government closely associated with those officials, are paying some serious attention at any given time.' Agenda setting is a process in which certain public problems are identified, recognized and defined, and specific solutions or alternatives are generated, considered and attached to these problems. Due to the limited attention span and information-processing capacity of actors, the list of problems and solutions on any particular agenda is usually very short (Baumgartner & Jones, 1993; Kingdon, 1995). The critical issue, then, is in influencing the development of the policy-making agenda, that is, getting your issue – and your preferred solution – on the agenda if it is not on it already. If certain issues are not even on the political agenda, groups interested in them have little chance to exert influence in the policy-making process. Moreover, groups will have little chance of defending their interests if they do not even know what

is on the policy agenda. But we know little about the mechanisms for the development of lobbying agendas.

There are different policy agendas. The lobbying agenda is distinct both from the agenda of members of Congress or that of other policymakers and from the public agenda or the issues that are salient with the broad public (Baumgartner et al., 2009; Kimball et al., 2012). These different agendas are connected to each other, but I cannot in this discussion study those connections. I focus initially on lobbying agendas. Lobbying agendas both reflect the congressional agenda (what bills are 'moving') and indicate issues that lobbyists would like on the congressional agenda (what bills they would like to see passed or blocked).

Despite the plethora of studies on lobbying, there are few conclusions about the nature and processes of influence (Baumgartner et al., 2009). Appropriately, much of the work on interest group influence uses a political or policy outcome such as roll call voting as the dependent variable, but such studies have not produced agreement on how interest group activities influence such outcomes (Smith, 1995). However, as noted above, if legislators are influenced by interest groups at all, they are *least* likely to be influenced when votes are cast (Baumgartner & Leech, 1998). Most scholars in both political science and political sociology believe that 'agenda setting is the arena where advocacy organizations will have their greatest influence' as they use various methods to bring greater attention, raise awareness, and create urgency around their preferred issues (Andrews & Edwards, 2004, p. 492). As the lobbying agenda reflects lobbyists' preferences and opportunities, the study of the development of the lobbying agenda relates to the broader question of political influence. Baumgartner and Leech (2001) noted the skewed distribution of issues listed in lobbyist disclosure reports: a small handful of issues were listed by a large number of lobbyists, reflecting what they termed a 'bandwagon' effect, while most issues were 'niche' and received very little attention. But these results were descriptive in nature and don't tell us why a handful of issues become popular while most are niche. How do lobbyists develop their lobbying agendas? Why do a small number of issues become the focus of most lobbyists? I suggest that social processes discussed may help answer these questions. A social approach to these questions may provide some insight as to why we see the patterns that we see.

Political activity is inherently social, whether because of the need for alliances or because policy change can affect a wide range of interests (Baumgartner et al., 2009). The formation of alliances or coalitions is an obvious example of social processes in lobbying. For example, organizations with broad agendas may need coalitions to help advance their views, and such organizations may have a wide range of ties to potential partners that they draw on in developing coalitions (Hula, 1999). Narrowly focused groups use their resources best by working alone and dominating an issue, while groups with a broad view perhaps need the expertise or legitimacy from coalition partners to be effective (Hojnacki, 1997). This argument is consonant with Browne's (1990) issue niche in which relatively few actors are active on a small set of issues that they can dominate or control. Holyoke (2009) focused on competition in the interest group environment, in which the set of policy preferences leads to conflict or cooperation among participants. Holyoke developed an elegant model of coalition formation amid competition in which lobbyists bargain over a coalition-based compromise position that would maximize their net benefits. In this model, lobbyists respond to different audiences (clients, legislators)

who provide incentives for taking particular positions. Holyoke found that lobbyists resolve conflicts among their clients by making trade-offs among available resources and the positions of their differing audiences.

But social processes abound even outside alliances. The policy domain requires a social orientation that has been recognized by policy and political scientists for decades. Hugh Heclo's (1978) issue networks, which are loose associations of policy professionals around an issue or set of issues, exhibit fluidity in terms of large numbers of actors with varying levels of commitment to each other and a social awareness of other groups in the policy area: 'Network members reinforce each other's sense of issues as their interests, rather than (as standard political or economic models would have it) interests defining positions on issues' (1978, p. 102). The issue network 'ties together what would otherwise be the contradictory tendencies of, on the one hand, more widespread organizational participation in public policy and, on the other, more narrow technocratic specialization in complex modern policies' (1978, p. 103). Heinz et al. (1993) found that the work context of representation was a primary source of connections in the lobbying community, and that time spent working in Washington was positively associated with knowing more political elites. Similarly, Kingdon's (1995) policy entrepreneurs engaged in continuing interaction as they reviewed and shaped each other's proposed solutions.

But these studies do not provide an underlying process that explains the types of interactions that we see, let alone the development of the lobbying agenda. One possible source of such an explanation is the theory of legislative subsidy as developed by Hall and Deardorff (2006). In this theory, a lobbyist is motivated to supply high-quality information to a member of Congress not as an exchange but as a subsidy to the legislator's constrained time and cognitive budget. The legislator then uses these information subsidies to exploit the policy process in order to pursue legislative objectives that she shares with the lobbyist. We might apply this idea to the development of the lobbying agenda: in a complex environment characterized by differential knowledge, lobbyists with better information, more experience or deep expertise may provide information subsidies to other lobbyists in the process of agenda development. As a result, the policy agendas of different actors become more similar to each other.

This subsidy or information-sharing idea suggests a social capital perspective in which connected lobbyists accumulate resources that are specific to their relationships (Coleman, 1988). As social capital inheres in relations and is not possessed by individuals, it enables the willingness both to give and receive information that is not otherwise available. For social capital to work, trust or reciprocity must be present (Glanville & Bienenstock, 2009).

To be sure, organizational resources and policy preferences matter: 'Groups that seek influence must have the kind of costly resources that enable them to know, to attain, to frame, and to deliver the sort of political and policy information (and interpretations) that are relevant to the goals of those legislators who have the power to make decisions that affect policy' (Leyden, 1995, p. 443). However, resources can include social relations within the policy domain because such relations lower search costs and enhance credibility and influence (Uzzi, 1997).

Dür (2008) discussed different approaches to measuring interest group influence, one of which was gauging the degree to which a group attained its policy preference. With

regard to preference attainment, 'the outcomes of political processes are compared with the ideal points of actors . . . the idea is that the distance between an outcome and the ideal point of an actor reflects the influence of this actor' (Dür, 2008, p. 566). For example, Mahoney (2007) pointed out that lobbying 'success' is rarely a winner-take-all outcome and usually a partial victory. An environmental group might desire a strong anti-pollution rule, but the rule is watered down with industry-backed amendments such that the environmental group makes a modest improvement in pollution while industry saves millions of dollars by avoiding a stricter rule. In her study, Mahoney surveyed the preferences of a sample of lobbying groups in the United States and the European Union over a sample of issues and then assessed whether or not an outcome associated with each issue reflected those preferences by using an ordinal scale to reflect partial, full or no attainment of a group's goal.

Applying the approach of preference attainment to a study of retirement policy lobbyists, Scott (2014) looked at whether organizations change their agenda choices in response to the choices of other actors. Opponents can influence each other as to what is important even if they disagree on the merits of a proposal, and groups on the same side of an issue can influence each other even when they have different levels of interest or different ideas about tactics. Two processes in particular stand out: 'bandwagon' and 'mutual influence.' These processes have been explored in other areas, such as the adoption of deviant behavior by adolescents (see, for example, Steglich et al., 2010).

There are two conditions that are necessary for these processes to work. First, interest groups must operate in a social environment. That is, these effects can only occur if people know each other and can communicate with each other. Second, social processes can only have an effect if they provide some benefit to the lobbyists directly involved. Even if one person hears about legislative developments from others working in the policy domain, why should that person update their preferences as a result of the information? Information is only useful if it is credible, which is based on the perceived trustworthiness of the source. Therefore, bandwagon and mutual influence mechanisms only work in policy domains where most actors know each other and have a history of interaction, where an actor can expect her interactions with others to continue into the future, and where other actors will take her interests into consideration because they similarly expect interactions to continue into the future (Hardin, 2002).

But how do the bandwagon and mutual influence processes work in terms of lobbyists and their agendas? For bandwagons, the fundamental idea is that an issue that attracts interest or activity might become a focal point because such interest or activity signals the issue's importance and legitimacy (Berardo & Scholz, 2010). 'The social nature of lobbying, with its sensitivity to context, can therefore be characterized by mimicry, cue-taking, and bandwagon effects' (Baumgartner & Leech, 1998, p. 140). An organization new to a policy domain may know the basics of an issue and where it stands on the issue, but it may not know about the merits and/or likelihood of a specific legislative proposal. Choices by other organizations may send signals about such legislative proposals. There even may be an underlying process of deference as new organizations look to organizations with more expertise or experience in the policy domain (Baumgartner et al., 2009). Network scholars outside the policy and political science disciplines have theorized as to the development of highly skewed distributions within networks, distributions that resemble the skewed lobbyist-issue distribution noted by

Baumgartner and Leech (2001). Such scale-free or power law distributions arise due to two key forces: network growth and preferential attachment (Barabási, 2003). As new actors join a network, they do not randomly attach themselves to incumbent actors but are more likely to attach themselves to those incumbent actors that have the most ties with other actors. In other words, if a new actor has a choice between actors A and B, and A has twice as many ties as B, the new actor is much more likely to choose A over B. These conditions should hold in a policy domain with fluid participation by lobbyists and newly proposed legislation introduced over time. Similarly, if organization A sees that everyone in the policy domain is focusing on issue Z, A will very likely select to work on issue Z.

Mutual influence operates between two actors. As noted above, policy domains are social in nature in that organizations look to each other when orienting themselves to common issues. Homophily, a process of attachment based on social similarity (MacPherson & Smith-Lovin, 1987), might also affect agenda choices. As a phrase, homophily means that 'like attracts like.' I use the term here not to mean similarity in terms of individual attributes, but in terms of choices. Again, two organizations on different sides of an issue may nonetheless agree on which bills are important. In other words, if organizations A and B have issue Y in common and A is also working on issue Z, it is likely that B will also start working on issue Z. Organizations that have the same issues in common may make the same choices in the future. If a lobbying organization has a number of common issues with another actor, their ongoing relationship is likely to be stronger.

How might these mechanisms apply to some of the theories of policy formation discussed at the beginning of this chapter? The policy formation theories discussed above deal with policy stability and change. With regard to policy stasis as studied by punctuated equilibrium theory, for example, Paul Pierson (2004) applied the economic concept of path dependence, noting that positive feedback effects would make policy change difficult under certain conditions. Path dependence can occur when a new policy or institution has high set-up costs, when the benefits from a new policy or institution increase when one learns how to use it, when others learn how to use and innovate on the new institution, and when people adapt their behavior to the policy or institution that they expect to dominate in the future. A social perspective among policy actors partially fits within this framework, as part of the benefits from a policy choice flow to an actor when other actors coordinate their actions in line with the policy and when people adapt to the expectation that the policy would continue in place. The mutual influence and bandwagon effects discussed here are related to these mechanisms for path dependence.

Policy can overcome path dependence, but the sources of what is known as 'punctuated equilibrium' are not well known and are likely varied. Networked relations and associated social norms may play a role in the punctuated equilibrium account of policy stability and change. For example, a process of influence may cause a group of policy actors to adopt a common agenda of issues. Another source of change occurs when durable relationships come under outside pressure that invalidates those trust-based social norms. When scandal or crisis erupts, politicians forego established 'folkways' and react quickly; when the pressure subsides, old patterns re-emerge. If trust and trust-based norms matter within the policy domain, and indeed demarcate the boundaries of the insider community, they can collide with outside pressures.

Baumgartner et al. (2009) note a social process of monitoring similar to the bandwagon mechanism:

> People inside and outside of government are constantly monitoring their peers to see which new studies are being received with credibility, which key actors are showing interest in which proposals, and which legislative vehicles may be taking shape. They want to be associated with initiatives that have a chance of passage, not to waste their time working on proposals (even ones they like) that are likely to go nowhere. (Baumgartner et al., 2009, p. 252)

The result of this process of monitoring others' positions and activities amidst uncertainty is that policy activity reflects a social cascade in which initial 'chaos' changes over time into an ordered state (Baumgartner et al., 2009), somewhat similar to the policy agenda coherence noted above. Initially, lobbyists might have a wide variety of possible legislative proposals from which to choose, but over time and under certain conditions they focus on a much smaller set of initiatives.

A social process of lobbying also provides new insights into the multiple streams theory. In Kingdon's conception, policy entrepreneurs, who can be a variety of actors from lobbyists to academics to decision-makers, circulate in the policy domain, shopping their particular policy solution among other actors in that domain, and using the feedback in the process of these interactions to revise or repackage their preferred policy idea. A relational perspective that incorporates information transfer and norms of cooperation and exchange works well in this context and suggests a way to study Kingdon's entrepreneurial framework in a more rigorous manner.

CONCLUSION

The purpose of this chapter is to suggest a new focus on interest groups' relations with other groups and how such relations affect policy formation outcomes, specifically lobbying agendas. Given a network of lobbying organizations and legislative proposals, an organization's lobbying choices are, in part, conditional on the choices of other lobbying organizations. While information and influence can come from different sources, lobbyists in a policy domain – particularly long-term players – tend to know each other, share information, and exchange interpretations about ongoing developments. This flow of information evokes the 'legislative subsidy' that is borrowed from Hall and Deardorff (2006). In such an environment lobbyists learn about the choices of other lobbyists and use this to condition their choices. In short, networks that are imbued with repeated interaction and with transfers of fine-grained knowledge affect policy agenda development.

This chapter speaks directly to ideas of policy change and stability as discussed by Baumgartner et al. (2009) and Kingdon (1995). Policy often is stable, but when change occurs, the magnitude of change is much more significant than a mere marginal adjustment in policy. For significant change to occur, context matters: the social nature of Washington lobbying ensures that policy actors will look to each other before investing resources into particular proposals. When actions are conditional on others, a social cascade can occur that punctuates a period of stability with a significant policy shift (Baumgartner et al., 2009, pp. 251–3). By this we can understand a policy domain as a social and dynamic space.

The particular influence mechanisms at work may be limited by the characteristics of a particular policy domain. Lowi's (1964) argument about types of policies having specific implications for political behavior may be useful. A particular policy domain may encourage embedded relations in that the technical complexity of a policy, for example, puts a premium on expertise and provides a benefit to long-term players who invest in the details. Thus, the processes discussed here may be limited to similar domains with a regulatory or technical emphasis, such as health care or intellectual property, and may not extend to more particularistic/distributive areas such as budget politics. Moreover, the size and composition of the policy domain may matter (Olson, 1965; Ostrom, 1991). More research, then, is needed.

However, these social processes should occur across a range of policy domains and even across levels of government for at least two reasons. First, politics and policy work are specialized according to experience and expertise such that we should see institutionally created communities infused with dense ties but with weak connections to other such communities. Such communities reduce the distance between actors, with the result that actors tend to know and interact with each other. Second, actors face complex and information-rich environments and have limited resources. Social relationships augment one's resources and leverage one's knowledge and expertise into effective advocacy. The real pleasure we feel from positive social interactions in work situations also reinforces the strategic benefits of these social processes. For these reasons, policy agendas likely develop neither through elite consensus nor through aggregation of independent choices but rather through social processes like bandwagons and mutual influence that are supported by trust-based relations in close-knit communities. Such close-knit communities may not be the elite-driven models of policy making, but they do suggest a different kind of elite hierarchy, one consisting of expertise and experience and trust.

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PART VIII

TRENDS AND PATTERNS OF POLICY FORMULATION

29. Trends towards the externalization and politicization of policy advice in policy formulation[1]
Jonathan Craft and Michael Howlett

INTRODUCTION

Past examinations of policy advice typically focused on specific sets of policy advisory actors and attempted to assess their influence in isolation from the activities of other actors. This was true of such early works as Meltsner's path-breaking work on policy analysts working in government (1975, 1976, 1979) as well as more recent efforts to examine the influence of think tanks or lobbyists (Nelson & Yackee, 2012; Wells, 2012). While such studies provide very useful information on the nature and activities of these key policy actors, they do not address their interactive or synergistic effects as parts of the policy advice system of actors striving to affect government decisions and policy outcomes.

Such 'policy advisory systems' arise in almost every instance of decision-making whereby governments receive advice not just from professional analysts in their employ or from outside groups, but also from a range of other actors, including think tanks and lobbyists, partisan political advisors, scientific, technical and legal experts, and many others both inside and outside of government (Craft & Howlett, 2012; Plowden, 1987). How these policy advisory systems are structured and affect policy-making, along with understanding which actors exercise influence within them and why, are questions which have motivated their initial elaboration and application (Seymour-Ure, 1987).

Accurately describing and understanding the nature of these advice systems is important for comparative policy and public administration and management research. Empirical studies of the supply of policy advice in countries such as the UK (Page & Jenkins, 2005), Australia (Weller & Stevens, 1998), New Zealand (Boston et al., 1996), the Netherlands (Hoppe & Jeliazkova, 2006), France (Rochet, 2004), Germany (Fleischer, 2009), and Canada (Howlett & Newman, 2010) reveal important differences in the sourcing and configuration of advisory actors and influence in policy formulation in those countries (see also Glynn et al., 2003; Mayer et al., 2004).

Despite a growing body of case studies, however, many important facets of advisory system behaviour have not been fully explored. The non-governmental components of policy advisory systems in most countries, for example, remain understudied (Hird, 2005), apart from a recognition of differentiated patterns of influence and capability in various countries (Abelson, 2007; Cross, 2007; McGann & Johnson, 2005; Murray, 2007; Smith, 1977; Stone & Denham, 2004; Stritch, 2007). The situation is even more acute for the consultant industry or so-called 'invisible public service' (Boston, 1994; Howlett & Migone, 2013; Speers, 2007).

One especially important issue beyond description and classification pertains to policy advisory system *dynamics.* That is, not only is it important to know how advisory systems

operate in specific sectors and jurisdictions and who exercises influence within them, but also how these actors and their relationships change over time (Aberbach & Rodman, 1989; Preston & 't Hart, 1999).

This question has not been addressed at all in the existing literature on advisory systems. Two specific dimensions of change are highlighted here: 'externalization', or the extent to which actors outside government exercise influence; and 'politicization', or the extent to which partisan-political aspects of policy advice have displaced non-partisan public sector sources of policy advice. These concepts are further specified below.

EXTERNALIZATION AND THE PREVAILING INSIDER-OUTSIDER ORTHODOXY IN ADVISORY SYSTEM STUDIES

In general, existing conceptual models of policy advisory systems associate different levels of influence with the location of advisors either inside or outside government (Wilson, 2006). This line of thinking underlay early efforts to classify the various components of advice-giving as a kind of marketplace for policy ideas and information. Most often, this was seen as comprising three separate locational components: a supply of policy advice, its demand on the part of decision-makers, and a set of brokers whose role was to match supply and demand in any given conjuncture (Clark & Jones, 1999; Lindquist, 1998; Maloney et al., 1994; March et al., 2009).

In these models the members of advice systems are typically arrayed into two or three general 'sets' or 'communities' (Dunn, 1980; Sundquist, 1978). The first set of actors comprises those 'proximate decision-makers' who act as consumers of policy analysis and advice. These are actors with the authority to make policy decisions, including cabinets and executives as well as parliaments, legislatures and congresses, and senior administrators and officials delegated decision-making powers by those other bodies. The second set is composed of 'knowledge producers' – located in academia, statistical agencies and research institutes, for example – who provide the basic scientific, economic and social scientific data upon which analyses are often based and decisions made. The third set common in many studies are 'knowledge brokers', who serve as intermediaries between the knowledge generators and proximate decision-makers, and who repackage data and information into a usable form (Lindvall, 2009). Brokers may include permanent specialized research staff inside government, temporary equivalents in commissions and task forces, and non-governmental specialists associated with think tanks and interest groups. Although sometimes ignored in earlier 'two community' models, brokers have been found to undertake key functions in formulation processes given their ability to 'translate' research results into usable forms of knowledge – that is, policy alternatives and the rationales for their selection to be consumed by decision-makers (Lindvall, 2009; Phipps & Morton, 2013; Verschuere, 2009).

Halligan (1995) sought to improve on these early models by adding the dimension of 'government control' alongside location as a key variable affecting advisory system structure and actor influence (Table 29.1). This approach is based on assumptions and a core proposition that requires explicit acknowledgement. On a basic level the 'public service' supply is compartmentalized or set off from other 'internal to government' sources. This is due to that component's centrality as the main unit of analysis in Halligan's review of the trends impacting public sector advisory practices.

Table 29.1   Locational model of policy advice system

Location	Government control	
	High	Low
Public service	Senior departmental policy advisors Central agency advisors/strategic policy units	Statutory appointments in public service
Internal to government	Political advisory systems > Ministers' offices > First ministers' offices Temporary advisory policy units Parliaments (e.g. a House of Commons)	Permanent advisory policy units Statutory authorities Legislatures in republican systems of government (e.g. US Congress)
External	Private sector/NGOs on contract Community organizations subject to government grants and appointments Federal international organizations	Trade unions, interest groups Community groups International communities and organizations

Source: Modified from Halligan (1995).

The core proposition advanced in such models, however, is that only some actors – be they internal or external – are able to influence policy-making, while others are not. This is because governments, generally, are assumed to be able to more readily exercise control over internal actors than external ones so that, prima facie, internal actors would exercise an inordinate amount of influence over the content of decisions vis-à-vis that exercised by external actors. As such, the model remains rooted in traditional insider-outsider logic.

This priority accorded to internal actors has been challenged in recent years by factors such as increased participatory efforts and the use of external consultants and commissions to provide policy advice. This has led to the general notion that much policy advice in the contemporary period, unlike in the past, has been 'externalized' (Bevir & Rhodes, 2001; Bevir et al., 2003; Howlett & Lindquist, 2004; Mayer et al., 2004). Studies in a range of countries have noted the increasingly porous nature of governments, with a plurality of policy advice suppliers outside government providing input and advisory services. This includes not only 'traditional' professional public service and political advisors in government, but also non-governmental actors in NGOs, think tanks, and less formal or professional forms of advice from colleagues, friends and relatives and members of the public and political parties, among others (Dobuzinskis et al., 2007; Eichbaum & Shaw, 2007; Maley, 2000). This dispersed advisory capacity combines technical knowledge and political viewpoints in ways that differ from the way advice was thought to be generated, and conceived of, in early thinking on advisory systems based on producer-broker-consumer or autonomy-control considerations.

Following Prince (2007), the contrasting elements of the traditional and contemporary ideal-type models of advice-giving are set out in Table 29.2. The shifts in the nature of state-societal or governance relations and decision-making authority and responsiveness set out in Table 29.2 have important consequences for thinking about the nature of influence in policy formulation and policy advisory activities.

Table 29.2   Two idealized models of policy advising

Elements	Speaking truth to power of ministers	Sharing truths with multiple actors of influence
Focus of policy-making	Departmental hierarchy and vertical portfolios	Interdepartmental and horizontal management of issues with external networks and policy communities
Background of senior career officials	Knowledgeable executives with policy sector expertise and history	Generalist managers with expertise in decision processes and systems
Locus of policy processes	Relatively self-contained within government, supplemented with advisory councils and Royal Commissions	Open to outside groups, research institutes, think tanks, consultants, pollsters and virtual centres
Minister/deputy minister relations	Strong partnership in preparing proposals with ministers, trusting and taking policy advice largely from officials	Shared partnership with ministers drawing ideas from officials, aides, consultants, lobbyists, think tanks, media
Nature of policy advice	Candid and confident advice to ministers given in a neutral and detached manner	Relatively more guarded advice given to ministers by officials in a more compliant or pre-ordained fashion
	Neutral competence	Responsive competence
Public profile of officials	Generally anonymous	More visible to groups, parliamentarians and media
Roles of officials in policy processes	Confidential advisors inside government and neutral observers outside government	Active participants in policy discussions inside and outside government
	Offering guidance to government decision-makers	Managing policy networks and perhaps building capacity of client

Source: Prince (2007, p. 179).

As noted above, older models relied on a kind of hierarchical or 'vertical' policy advice process in which inside advisors had more influence than outside ones. The emergence of a more pluralized advice-giving landscape than had previously existed has challenged any traditional monopoly of policy advice once held by the public service (Page, 2007, 2010; Radin, 2000; Weller & Rhodes, 2001). That is, as authors such as Radin (2000), Prince (2007) and Parsons (2004), among others, have argued, the well-known 'speaking truth to power' model of policy advice developed in the 1970s (Wildavsky, 1979) has given way in many policy-making circumstances to a more fluid, pluralized and polycentric advice-giving reality (Parsons, 2004; Prince, 2007).

Professional policy analysts, for example, are now employed not only by government departments and agencies but also by advisory system members external to government, serving as potentially significant sources of substantive or procedural policy advisory content used by policy-makers to support existing policy positions or as sources of new advice. For example, private sector consultants perform such tasks, as do experts in think tanks, universities and political parties. All of these may, to varying degrees, be quite

capable of providing specific suggestions about factors such as the costs and administrative modalities of specific policy alternatives (Bertelli & Wenger, 2009; Boston et al., 1996; McGann & Sabatini, 2011; Rhodes et al., 2007).

Supply and demand rationales have been advanced to explain this externalization dynamic documented in some advisory systems. These explanations include the hypothesis that externalization is a byproduct of attempts by elected officials to secure greater political control and responsiveness over the administration. This involves, among other techniques, the increasing use of exogenous sources of policy advice to weaken a perceived public sector policy advisory monopoly (Dahlstrom et al., 2011; Peters & Pierre, 2004; Weller & Rhodes, 2001). Other analysts contend that globalization and the rise of so-called 'wicked' policy problems have reduced the perceived capability of the public sector to respond to contemporary policy challenges, thus prompting a decline in demand for advice from the public sector and a concomitant increase in demand for advice from non-governmental sources (Peters & Savoie, 2000). From a supply side perspective it has also been argued that successive public sector reforms have eroded the public sector's capacity to provide timely policy advice (Painter & Pierre, 2005). Or, as some have alleged, there is simply a greater exogenous supply, resulting in a more competitive 'marketplace' for policy advice (Boston, 1994; Tiernan, 2011).

The practical implications of such changes in advisory system structure and behaviour are obvious. As Anderson argued, in the contemporary period 'a healthy policy-research community outside government can (now) play a vital role in enriching public understanding and debate of policy issues' (1996, p. 486) and can serve as a natural complement to policy capacity within government. This is a view which can be contrasted with Halligan's earlier admonition that:

> The conventional wisdom appears to be that a good advice system should consist of at least three basic elements within government: a stable and reliable in-house advisory service provided by professional public servants; political advice for the minister from a specialized political unit (generally the minister's office); and the availability of at least one third-opinion option from a specialized or central policy unit, which might be one of the main central agencies. (Halligan, 1995, p. 162)

POLITICIZATION: ADDING THE CONTENT DIMENSION TO LOCATIONAL MODELS OF POLICY ADVISORY SYSTEMS

Recent examinations of several components of policy advisory systems such as political parties (Cross, 2007), the media (Murray, 2007) and partisan appointees (Connaughton, 2010a, 2010b; Eichbaum & Shaw, 2010; OECD, 2011) have also suggested a second dynamic at work which has undermined traditional models of policy advisory systems: politicization. That is, it is also the case that many advisors, both internal and external, provide political advice to decision-makers. This ranges from personal opinion and experience about public opinion and key stakeholder group attitudes and beliefs, to explicit partisan electoral advice.

This kind of advice has always been provided by prominent traditional inside actors such as political advisors attached to elected officials and political parties (Connaughton, 2010a, 2010b; Eichbaum & Shaw, 2007, 2008; Leal & Hess, 2004), as well as from the

public consultation and stakeholder interventions prominent in contemporary governance (Bingham et al., 2005; Edelenbos & Klijn, 2005; Pierre, 1998). Non-governmental sources of policy advice such as think tanks have also become recognized agents of politicization given their potential partisan alignment, and their use by governments to generate support for existing policy preferences or political policy agendas (McGann & Johnson, 2005; Rich, 2004).

Peters and Pierre (2004) rightly point out the lack of specificity often associated with the application of the notion of politicization. They suggest that at its most basic, 'the politicization of the civil service involves the substitution of political criteria for merit-based criteria in the selection, retention, promotion, rewards, and disciplining of members of the public service' (Peters & Pierre, 2004, p. 2). Others have sought to further refine politicization by linking it to specific types of policy processes and advisory activity (Mulgan, 2007). Following Eichbaum and Shaw (2008), we adopt the notion of 'administrative politicization' to describe 'an intervention that offends against the principles and conventions associated with a professional and impartial civil service' (Eichbaum & Shaw, 2008, p. 343).

The growing body of literature on this subject points to the need to incorporate more detailed and nuanced analysis of shifts in the content of policy advice to location-based models of advisory systems (Peters & Barker, 1993). As we have seen, early thinking about the nature of policy advice often contrasted 'political' or partisan-ideological, value-based advice with more 'objective' or 'technical' advice, and usually stressed the importance of the latter while ignoring or downplaying the former (Radin, 2000). Policy schools purporting to train professional policy advisors in government, for example, typically provided instruction only on a range of qualitative and quantitative techniques that analysts were expected to use in providing technical advice to decision-makers about optimal strategies and outcomes to pursue in the resolution of public problems, downplaying or ignoring political or value-laden issues and concerns (Irwin, 2003; MacRae & Wilde, 1976; Patton & Sawicki, 1993; Weimer & Vining, 2004).

This 'positivist' or 'modern' approach to policy analysis dominated the field for decades (Radin, 2000) and presupposed a sharp division between governmental advisors armed with technical knowledge and expertise and non-governmental actors with only non-technical skills and knowledge.[2] As Weller noted long ago, such divisions along administrative and political lines are typical in early thinking related to advice-giving, since, as noted above, 'by "policy" is usually meant technical and professional alternatives or the outcomes of "objective" or "rational" analysis. "Political" is (then) taken to refer to consideration of the likely electoral or media consequences of a course of action. The former is seen as substantive while the other is often regarded as more self-interested' (1987, p. 149).

Although often not explicitly stated in many studies, such a 'political' versus 'technical' advisory dichotomy often underlay early locational models of policy advisory systems, with advice assumed to become more technical as it moved closer to proximate decision-makers. In the contemporary era, however, the overlapping or juxtaposition of content and location is no longer justified, if it ever was.[3]

The OECD, for example, has repeatedly found that political advisors in a range of countries are important sources of policy advice and have become established features of advisory systems (OECD, 2007, 2011). Additional studies have also pointed to the

important role that 'political' advisors can play in the brokerage, coordination and integration of various endogenous and exogenous sources of policy advice to decision-makers (Eichbaum & Shaw, 2011; Gains & Stoker, 2011; LSE GV314 Group, 2012; Maley, 2011).

The extent to which this has occurred, however, varies by country and sector. Westminster systems, for example, pride themselves on retaining at least part of the traditional political-administrative dichotomy in policy advice in the form of conventions about civil service neutrality in the specific 'civil service bargain' (Hondeghem, 2011; Hood, 2002; Salomonsen & Knudsen, 2011). Even in this strong case, however, this convention has been eroded. In their study of New Zealand policy advice, for example, Eichbaum and Shaw conceptualize 'procedural' types of politicization that involve political advisor activity that is 'intended to or has the effect of constraining the capacity of public servants to furnish ministers with (technical) advice in a free, frank, and fearless manner' (2008, p. 343). This politicization is manifested either when a 'political' advisor 'intervenes in the relationship between a minister and his or her officials', or alternatively, due to the conduct of a political advisor that is intended to or which has the effect of 'constraining the capacity of officials to tender frank, and fearless advice by intervening in the internal workings of a department' (Eichbaum & Shaw, 2008, p. 343). They also found many instances of 'substantive politicization', which dealt specifically with 'an action intended to, or having the effect of coloring the substance of officials' advice with partisan considerations' (Eichbaum & Shaw, 2008, pp. 343–4).

A NEW RESEARCH AGENDA: ALTERNATE MODELS OF ADVISORY SYSTEMS

The shift from the largely internal, technical, 'speaking truth' policy advising towards the diffuse and fragmented 'sharing of influence' approach paints a picture of contemporary policy advising practices that not only features the pronounced influence of external sources of advice, but the utilization and significance of both technical and political kinds of policy advice in different degrees and measures in different jurisdictions. These dual dynamics are linked with a third phenomenon: that whatever policy advisory monopoly or hegemony was once held or exercised by professional public service and advisors within government in such systems is no longer assured, or even common.

Changes in contemporary governance arrangements thus speak to shifts in the patterns of policy advisory activity and interaction within advisory systems at both the political and administrative levels, both internally and externally. These are precisely the dynamics that should be taken into account when thinking about advisory systems. Attention to such dynamics facilitates moving beyond a myopic focus on the effects of such shifts for public sector components and helps move thinking about advisory systems forward. Additionally, while the 'sharing truth with multiple actors of influence' model may characterize contemporary policy advisory practices in many jurisdictions, others, for example developing nations, may continue to operate under the 'speaking truth to power' or some hybrid form. This only further supports a focus on the comparative analysis of the dynamic properties of such systems.

Another important theme concerns the impact these two dynamics have on advice systems. What does an advisory system look like that features external and political actors
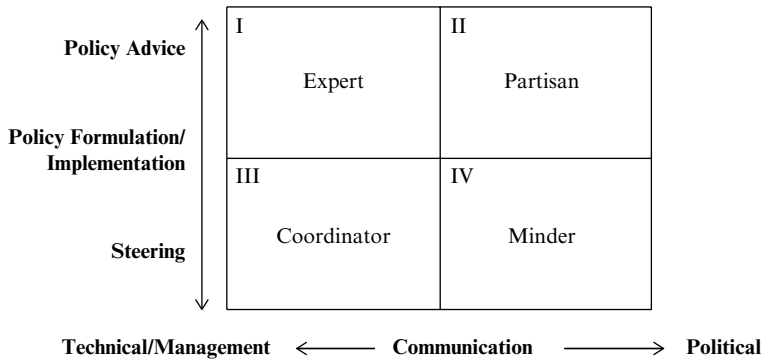
Figure 29.1   Connaughton's configuration of advisor roles

alongside internal and technical ones? Explicitly dealing with the content dimensions of policy advice, Connaughton (2010a, 2010b) suggested one possible route to this new mapping (Figure 29.1). Focusing her analysis on the activities of advisory actors, she highlighted two content-related dimensions – *not* whether advice was partisan or administrative, but whether it involved *substantive or procedural* policy formulation/implementation activities ranging from content-based policy advice activities to procedural policy 'steering' or 'communications' functions, which could be 'technical/managerial' or 'political' in nature.

Similarly, Prasser, in his studies of Royal Commissions in Australia (2006a), and more generally concerning the nature of policy advice (2006b), also suggested that distinguishing between the 'political' and 'non-political' content of policy advice is less insightful than distinguishing between the temporal nature of the advice provided. He differentiated between what he termed 'cold', typically long-term and proactive, and 'hot', or short-term and crisis-driven, types of advice (Table 29.3). Although he noted some overlaps between these categories and the old 'politics' versus 'administration' divides, the general situation he describes is one in which neither partisan nor civil service actors have an exclusive monopoly of one type of advice.

Attention to the temporal, content and process-based dimensions can be usefully applied to modelling contemporary advisory system structure and behaviour. Together, spatial and temporal comparisons can be used to differentiate between types of policy advice content in a way that is more useful than older locational models for the conceptualization of the activities of policy advice system actors.

One such possible mapping of advisory system actors based on these twin dimensions is contained in Table 29.4. This depiction sheds the spatial focus dominant in orthodox approaches in favour of distinctions based on the content of the advice itself. This does not preclude examinations of the point of origin of policy advice or descriptive mapping of the spatial distribution of supply, but shifts the attribution of influence in advisory systems to a congruence of the nature of the policy advice provided and the given issue, as opposed to determinations strictly based on the location or provenance of the advice proffered.

Table 29.3   Comparing 'cold' and 'hot' advice

Long-term/anticipatory Or 'cold' advice	Short-term/reactive Or 'hot' advice
Information-based	Opinion/ideology based
Research used	Relies on fragmented information, gossip
Independent/neutral and problem-solving	Partisan/biased and about winning
Long-term	Short-term
Proactive and anticipatory	Reactive/crisis-driven
Strategic and wide range/systematic	Single issue
Idealistic	Pragmatic
Public interest focus	Electoral gain oriented
Open processes	Secret/deal making
Objective clarity	Ambiguity/overlapping
Seek/propose best solution	Consensus solution

Source: Adapted from Prasser (2006b).

Table 29.4   Policy advisory system members organized by policy content

	Short-term/reactive	Long-term/anticipatory
Procedural	*Pure political and policy process advice* *Traditional* Political parties, parliaments and legislative committees (House of Commons, Congress); regulatory agencies	*Medium to long-term policy steering advice* *Traditional* Deputy ministers, central agencies/ executives; Royal Commissions; judicial bodies
	As well as Internal as well as external political advisors, interest groups; lobbyists; mid-level public service policy analysts and policy managers; pollsters	*As well as* Agencies, boards and commissions; crown corporations; international organizations (e.g. Organisation for Economic Co-operation and Development, International Labour Organization, United Nations)
Substantive	*Short-term crisis and fire-fighting advice* *Traditional* Political peers (e.g. cabinet); executive office political staffs	*Evidence-based policy-making* *Traditional* Statistical agencies/departments; senior departmental policy advisors; strategic policy units; Royal Commissions
	As well as Expanded ministerial/congressional political staffs; cabinet and cabinet committees; external crisis managers/ consultants; political strategists; pollsters; community organizations/NGOs; lobbyists; media	*As well as* Think tanks; scientific and academic advisors; open data citizen engagement-driven policy initiatives/Web 2.0; blue ribbon panels

Source: Craft and Howlett (2012, p. 91).

CONCLUSION

Conceptualizing policy advice systematically, in terms of the configuration of the various constituent elements in any given jurisdiction or policy sector, is useful for understanding how those parts interact in systems of advice and influence policy formulation. Early advisory system modelling facilitated descriptively mapping the various supplies of policy advice along with implicit determinations of their influence in relation to their proximity and autonomy from government. These early models can be strengthened not only through additional focus on the content, or the substantive and procedural dimensions of policy advice, but also through focused attention on the dynamics of how advisory systems change. Such insights are essential if the politics and impact of policy advice, and its changing characteristics and impact in many jurisdictions, are to be properly analysed and understood.

NOTES

1. This chapter was originally published as Jonathan Craft and Michael Howlett (2013), 'The dual dynamics of policy advisory systems', *Policy and Society*, **32**(3), 187–97. It is reprinted here with permission from Elsevier (license number 3658600930545).
2. The extent to which this information is used and to what extent it can be considered 'objective' and 'expert' is, of course, a continuing controversy in the policy sciences. See, for example, Rein and White (1977a, 1977b) and Lindblom and Cohen (1979) and the very similar arguments made two decades later in Shulock (1999) and Adams (2004).
3. The irrelevance of these older political vs. administrative distinctions has been highlighted by governance studies as well as studies of the behaviour of specific advisory system actors such as appointed partisan political advisors. Early efforts like Walter (1986) confirmed that these kinds of policy advisors often extended advice on policy options and 'paid attention' to the policy agenda, acting as policy 'mobilizers' in the face of a policy vacuum or playing a 'catalyst' role in activating a policy process (Walter, 1986, pp. 152–4). Later scholars such as Dunn (1997, pp. 78–93) also found that 'political' advisors played a role in shaping policy through overseeing the policy development process, providing direction, evaluating policy proposals, and monitoring implementation.

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30. Trends towards evidence-based policy formulation
Holger Strassheim

INTRODUCTION[1]

In 1999, the British Cabinet Office issued its influential White Paper on *Modernising Government*. This White Paper prominently addressed what would later become the central problem and programmatic core of evidence-based policy making (EBPM): How could the policy process be 'modernized' in order to systematically integrate evidence and expertise? The primary strategic goal of this modernization process was to be 'forward looking in developing policies [that are] shaped by the evidence rather than a response to short-term pressures' (Cabinet Office, 1999a, p. 15). This process orientation has since become the defining feature of EBPM, which represents all efforts to re-engineer the policy process in order to allow evidence to be integrated as early as possible (Howlett, 2009; Nutley & Webb, 2000).

Today, approaches of EBPM are both varied and widely spread, ranging from systematic reviews or evidence-based appraisals to all-encompassing programmes (Nutley et al., 2010). In the second half of the 1990s, policy assessments such as regulatory impact analysis (RIA) or cost-benefit analysis (CBA) rapidly spread across countries, mostly as tools to inform decision-makers about the options and impacts of regulations *before* policies are agreed and implemented (Adelle & Weiland, 2013). Experimental designs and randomized controlled trials (RCTs) are supposed to be integrated into the policy process as early as possible to avoid the risk of inaccuracies in making causal claims and to ensure the effectiveness of policy interventions (Pearce & Raman, 2014). Foresight has become an integral element of policy formulation: the European Commission established the Foresight and Behavioural Insights Unit (FBIU) at the Joint Research Centre (JRC) in 2014 with the goal 'to support . . . reflections on the future . . ., to proactively shape policies, taking into account the dynamics of change rather than linear extrapolation and wishful thinking . . . to further improve its scientific and technical policy support by pooling relevant expertise' (Bock et al., 2014, p. 3).

Despite this remarkable career, EBPM has also been subject to various critiques (Boswell, 2009; Howlett, 2009, pp. 155–6; Munro, 2014; Strassheim & Kettunen, 2014). One of the key concerns is connected to the observation that policy makers seem to disregard the findings of research even if they commissioned the research themselves. More than 40 years ago studies on the utilization of knowledge noted that actors in politics and administrations 'express an eagerness to get all the policy-relevant scientific information they can. Yet, paradoxically and for whatever reasons, they are not influenced by such information if they receive it' (Caplan et al., 1975, p. 50). This observation remains true today (for a more recent critique of the utilization research, see Prewitt et al., 2012). Even if policy makers pay attention to experts, reception tends to be highly selective and sometimes tainted by political goals and opportunities (Marston & Watts, 2003). And even if studies and facts are fully taken into account, this often happens with the purpose

of enhancing public acceptance of politically preferred solutions or weakening the objections of rival parties rather than making well-informed decisions (Boswell, 2009, p. 7).

These failings have fuelled a public debate about whether EBPM is really policy-based evidence making (Strassheim & Kettunen, 2014; Young et al., 2002). Some suggest that evidence, as soon as it enters the maelstrom of policy formulation, gets contaminated and corrupted, polluted and politicized – yet despite this, the quest for evidence-based policy has never been stronger than today. And while simulations and experimental studies are now indispensable in policy making, citizens question the role of science and expertise more than ever. Scientization and politicization appear to be occurring simultaneously (Bader, 2014; Strassheim, 2015).

This chapter focuses on the relationship between politics and evidence in public policy formulation. It takes the puzzling dynamics between evidence-based policy and policy-based evidence as a starting point. Informed by recent debates in critical policy analysis, Science, Technology and Society (STS) studies and global governance research, it asks the following questions (Fischer, 2009; Hilgartner et al., 2015; Jasanoff, 2012; Quack, 2013; Strassheim, 2015): What are the reasons for public criticism of EBPM? How can we explain the simultaneous scientization and politicization of policy making? And how can we make sure that policy-relevant evidence and expertise are publicly credible, politically relevant and scientifically valid at the same time?

The chapter is structured around three main arguments. Firstly, we should systematically distinguish between scientific research and expertise (Jasanoff, 1990; Strassheim, 2015, p. 326). Experts have always been boundary workers of various sorts. They may be peers in the context of science, colleagues in the context of professional organizations or citizens in the context of politics. As experts, however, they need to successfully employ both epistemic and political authority. This is also true for evidence: policy-relevant facts are the result of a complex and intense struggle for political and epistemic authority on both sides, science as well as politics. Government research institutes and other organizations of regulatory science are synthesizing and evaluating knowledge in order to combine policy relevance with scientific rigour. Such an understanding serves to decouple the (political and scientific) debate on the foundations of expertise from the debate on the foundations of science. The question is not so much how to prevent politicization, but rather how to make sure that it is done in a public, legitimate and scientifically valid way. Since expertise is embedded in different authority relations and cultural contexts, there is not one 'best practice'. The credibility and stability of EBPM might depend on carefully choosing among multiple options in public deliberations.

Secondly, efforts to restore the reputation of EBPM by sharply demarcating it from policy issues might result in 'silent politicization' (Zürn & Ecker-Ehrhardt, 2013, p. 20). In general, politicization occurs whenever issues in society become problematic and the aim to regulate or transform them is communicated, be it in the public sphere to provoke collective action and/or in spheres of collectively binding decision-making (Turner, 2006; Young, 2004; Zürn et al., 2012). Following this definition, politicization happens whenever divergent perceptions or value conflicts are articulated in the public domain, mostly in order to translate them into collective decisions. In addition to this classic concept of politicization (Habermas, 1987), silent politicization refers to activities of policy formulation that occur in small circles, closed networks or other opaque constellations in which collectively binding decisions are influenced, prepared or realized (Zürn & Ecker-Ehrhardt, 2013,

pp. 19–20). In this sense, attempts to politically neutralize EBPM or shield the evidence from questions of political relevance may shift these questions into the silent sphere of politicization (Fischer, 1988; Jasanoff, 1990; Strassheim & Kettunen, 2014).

Thirdly, under the conditions of the 'postnational constellation' (Habermas, 2001), silent politicization of EBPM has become a multi-level phenomenon. It includes the micropolitics of black-boxing, blame avoidance, knowledge monopolies or over-simplification. At the meso-level, the quest for a more standardized and professional EBPM has led to hierarchies of evidence, with RCTs as the 'gold standard' at the top of the pyramid. At the global level, actors engage in the 'geopolitics of knowledge' (Mignolo, 2005) that aim to identify once and for all a common and collectively binding model of expertise that supersedes cultural and political priorities across regions. At this point, however, expertise has already become the subject of public debates questioning the conditions and possibilities of science advice.

The chapter is organized as follows. The next section gives an overview of current debates on evidence-based policy and its counterpart – policy-based evidence. The third section briefly sketches out the conceptual baseline of expertise and its politicization; and each of the following three sections focuses on a different level of (silent) politicization of EBPM. The final section summarizes the arguments and points to possibilities and limits of socially acceptable expertise under conditions of the postnational constellation.

EVIDENCE-BASED POLICY OR POLICY-BASED EVIDENCE?

After more than two decades of evidence-based policy approaches, there still is an intensive international and transnational interest in assessing the success and failures of public policies and in making well-informed decisions about policy programmes, instruments and institutions on the basis of various sources of expertise. In 1999, inspired by models of business process re-engineering, the UK Cabinet Office's Strategic Policy Making Team presented its report on *Professional Policy Making for The Twenty First Century* (Cabinet Office, 1999b; Nutley & Webb, 2000, p. 39). Describing 'what an ideal policy making process would look like', the Cabinet Office systematically matched every stage of the policy process with a specific form of evidence in order to make sure that policy is 'fully effective'. The report noted that when formulating policies, policy makers would have to take into account scenario planning; when making decisions, policy makers should commission new research and consult the relevant experts; and to evaluate the outcomes, programmes should constantly be reviewed in place with a range of meaningful performance measures (Cabinet Office, 1999b, pp. 70–8). In contrast to the classic policy cycle – understood 'as a sequence of closely inter-related and inter-dependent activities' – the 'modernised' process of policy making was conceptualized as a 'single, seamless, flexible process' of integrating evidence (1999b, pp. 10–11). The approach has remained an integral element of public management strategies and policy practice to this day.

In their most recent report on evidence-based policy strategies in the UK, the Cabinet Office gives an overview on the What Works Network. Launched in 2013, this network consists of six so-called What Works Centres, which provide an infrastructure of policy advice, expert assessments and evidence guidelines across diverse policy areas such as health and social care, educational attainment, crime and local economic growth. The What Works Network was based on the model of the National Institute for Health and

Care Excellence (NICE), set up in 1999 to provide guidelines, assess technologies and develop cost-benefit analyses for the health sector. Evidence-based medicine has been an important inspiration for evidence-based policy and still forms an integral part of the What Works Network (Cabinet Office, 2013). The government's official commitment to evidence-based policy has been furthered by the Behavioural Insights Team (BIT), a unit originally installed in the Cabinet Office in 2010 (and now privatized). BIT has published several influential papers on the application of behavioural economics across policy fields, and has proposed RCTs as a major way 'of determining whether a policy is working' (BIT, 2012; Strassheim & Korinek, 2016). David Halpern, who heads the BIT, also works as a national advisor within the Cabinet Office to coordinate the What Works Network and provide guidance to ministers and stakeholders.

One of the few comparative studies in this field concludes that, despite certain differences, a dense network of 'shared commitments' to evidence-based policy can be observed across multiple countries (Nutley et al., 2010, p. 142). The US 'Coalition for EBP' has spread a similar message on 'increasing government effectiveness through rigorous evidence about what works' (Munro, 2014, p. 50). In its most recent World Development Report (*Mind, Society and Behavior*), the World Bank observes that professionals 'take it as a given that development policy should be "evidence-based," and on this basis they proceed to frame arguments around the importance of conducting "rigorous evaluation" to assess the "effectiveness" of particular interventions' (World Bank, 2015, p. 187). The report continues with the more sceptical observation that 'in contrast, seasoned practitioners tend to regard evidence as one factor among many shaping what policies become politically supportable and implementable' (2015, p. 187).

In a similar vein, there has also been increasing criticism of evidence-based policy. In his seminal paper on the origins of evidence-based policy in the UK, Solesbury (2001) highlights that evidence is plural and complex, power and authority play a vital role in science-policy interaction, and knowledge can be misused for political purposes. Based on observations in Australia, Marston and Watts (2003, p. 158) warn that '[t]here is a risk that "evidence-based policy" will become a means for policy elites [to] increase their strategic role over what constitutes a social problem in a way that devalues tacit forms of knowledge, practice-based wisdom, professional judgment, and the voices of the ordinary citizens'. Some argue that EBPM continues the tradition of the European Enlightenment – the idea that 'responsibility in public affairs is essentially a matter of rationality, evidence, and reflective judgement' (Grayling, 2008, p. xxv). Others see EBPM less as an expression of enlightenment and more of a technocratic re-engineering of societies (Fischer, 2009). Carol Weiss famously described such a policy-driven utilization of evidence as 'endarkenment' (Weiss, 1980).

Indeed, the increasing criticism of EBPM has led to the inverse and very popular phrase of 'policy-based evidence' (Sanderson, 2011). If evidence-based policy is 'guided not by dogma but by an open-minded approach to understanding what works and why' (DfEE, 2000), policy-based evidence means exactly the opposite: the failure to include relevant knowledge, the claim that evidence is distorted when actually it is not, the highly selective integration of research, and the instrumental use of facts in order to justify policies.

The literature provides various examples of policy-based evidence formulation across countries and policy sectors (Munro, 2014; Strassheim & Kettunen, 2014; van Egmond et al., 2011; Young et al., 2002). Concerns have been raised in diverse fields such as crime prevention (Gregg, 2010, p. 16), criminal justice (Hope & Walters, 2008), migration policy

(Boswell, 2008), energy policy (Sharman & Holmes, 2010), education policy (Henig, 2009), public health (Kemm, 2006), development policy (Berndt, 2015; Crewe & Young, 2002), food safety (Rothstein, 2013), the liberalization of European Union (EU) energy markets (Torriti, 2010), child care (Rüling, 2010), housing (Doherty, 2000), transport (Terry, 2000) and the use of impact assessments, performance indicators or policy appraisal tools (Adelle & Weiland, 2013; Cashmore et al., 2010; Turnpenny, 2009).

There are a number of possible explanations for the problems and deficits of EBPM (Boswell, 2009, pp. 5–7; Howlett, 2009, pp. 155–6; Strassheim & Kettunen, 2014). Some argue that the multiple temporal pressures in policy formulation and decision-making, the rhythm of electoral cycles and the small attention span of policy makers trump the advice provided by researchers (Kingdon, 1984; Strassheim, forthcoming; Zahariadis, 2003; Zohlnhöfer et al., 2015). Rational problem solving is seen as the exception, not as the norm. Policy making is characterized by unstable participation in decision-making, high turnover of political or administrative actors, and a considerable influence of non-governmental organizations such as unions or civil society groups. Preferences and problems are not well articulated, not least because decision-making procedures can be opaque. Choice is made not on a rational basis but spontaneously, from a fluid and incalculable stream of problems, solutions and events.

Another, related explanation is that policy makers lack the ability, resources or structures to develop 'policy analytical capacity' (Howlett, 2009): the request to divert resources from the implementation of policies to the gathering and integration of data across the entire policy cycle might simply be excessive, leading to suboptimal and selective uses of evidence. The literature on policy failures in particular has argued that problems and failures are systematically connected to the stages and time frames of policy processes. Policy analytic capacity thus describes the ability to absorb evidence, to temporally sort it in order to prevent potential policy failures at every stage of the policy process, and to strategically interlink the time horizons of policy making with those of science and society (Howlett, 2009, pp. 162–3). Instead of developing policy analytical capacity, policy makers tend to use evidence symbolically – to raise public acceptance, to get support for their claims and to discredit opposing ideas (Boswell, 2009).

A third type of explanation focuses on the nexus between science and policy, arguing that failures to take up evidence may be caused by problems of 'translation' or 'utilization' (Weiss, 1979). Research follows different criteria than policy and therefore might lack the relevance, focus or clarity to be inserted into policy processes. More important, multiple ways of linking science to policy following different logics may coexist in one setting (Halffman & Hoppe, 2005). As Halffman and Hoppe have shown for the case of the Netherlands, contestations between corporatist, liberal and deliberative styles of policy advice may lead to conflicts and power asymmetries in the vertical and horizontal governance of science-policy relations: 'the tensions between these patterns are loaded with ideological disagreement and contradiction', resulting in 'diverse processes of change rather than one transition' (Halffman & Hoppe, 2005, p. 2; see also Hoppe, 1999).

Finally, approaches related to critical policy analysis and STS emphasize that expertise and evidence are different from science: they are already situated at the boundary between science and policy (Jasanoff, 1990; Jung et al., 2014; Strassheim, 2015). Policy-relevant evidence is the result of complex procedures and practices combining political and epistemic authority. The question is not so much how to prevent politicization, but rather how

to make sure that it is done in a public, legitimate and scientifically valid way. This explanation does not necessarily collide with the other three, but it does provide some insights that might help to understand the puzzling dynamics of scientization and politicization. The following sections explore this fourth explanation, starting with a brief conceptual introduction to the political dimensions of evidence and expertise.

THE SILENT POLITICIZATION OF EVIDENCE AND EXPERTISE

The rise of evidence-based policy in the past 20 years has occurred alongside numerous efforts to democratize science and enhance public participation (Callon et al., 2011; Fischer, 2009). This movement has promoted the spread and diversification of public engagement mechanisms, such as citizen juries and panels, stakeholder conferences and deliberative forums. The strengthening of so-called deliberative democracy is intended to legitimize decisions, put policy advisors under public scrutiny and foster a dialogue between experts and non-experts – sometimes with the purpose of eliminating the boundaries between experts and lay people altogether. Public policy seems to depend on expertise more than ever, even as the credibility and reliability of this expertise is increasingly questioned. The problem is aggravated by the fact that political decisions are now typically made under urgent pressures of time while the financial and human costs of those decisions are dramatically increasing. It is probably the most paradigmatic and well-known paradox of expertise that 'in the cases in which scientific advice is asked most urgently . . . the authority of science is questioned most thoroughly' (Bijker et al., 2009, p. 1; see also Limoges, 1993; Weingart, 2003). In a similar vein, Nelkin (1987, p. 293) had already shown that 'ironically, the greater the utility of science in political affairs, the less it can maintain its image of objectivity that has been the very source of its political value'. Others describe this puzzle as the coincidence between 'expertizing democracy' and 'democratizing science' (Bader, 2014).

A first step to improve understanding of the intricate relationships between science and policy is to recognize the specific character of expertise – specifically, the fact that experts are always already boundary workers. They may be peers in the context of scientific research, colleagues in the context of professional organizations or citizens in the public domain. As experts, however, they need to successfully combine both epistemic and political authority in three interconnected dimensions of sense-making: the social, temporal and object dimensions (the following part is based on Strassheim, 2015; for a different approach to expertise, see Collins & Evans, 2006).

In the social dimension, individual or collective actors are publicly perceived as experts when they become the object of competence attributions in terms of both scientific integrity and political relevance. These social expectations determine the formal and informal rules of how to recruit experts, the practices by which experts gain credibility at the boundary between science and policy, the relationship between reputation and representation, the criteria of separating insiders from outsiders, the composition of commissions and advisory committees, and the influence of reputation networks and alliances both within and between organizations. As connoisseurs, technical specialists, representatives of professions, members of think tanks or global knowledge networks, experts need to respond to and reproduce different and sometimes contradictory expectations of 'objectivity' (Brown, 2009b; Jasanoff, 2011).

In the temporal dimension, expertise becomes a matter of timing and opportunities. 'Scripts' – understood as compilations of procedural rules and routines – structure the practices of knowledge production, sorting them in a consecutive order. In committee rules and guidelines, such as those of the Federal Advisory Committee Act (FACA) in the USA, the rhythm of procedural dynamics and the opening and closing of windows of opportunity influence which knowledge claims are perceived as politically relevant and scientifically valid (Brown, 2009a). In the course of agenda-setting and decision-making, expertise that has been potentially contested might – once it has been entrenched in the proceedings and protocols of advisory processes – emerge as an incontestable premise for further decisions (Luhmann, 1969 [1989]).

Finally and most importantly, in the object dimension, the authority of expertise depends on objects of knowledge such as statistics, simulations or surveys. While the meaning and definition of the term 'evidence' has always been subject to controversies in the history of science and philosophy, evidence has mostly referred to an obvious and apparent certainty – something that is hardly questionable and needs no further justification. While evidence may be the product of historically changing and socially contingent procedures and practices it appears to those who come to accept it as something to be taken for granted, something irreducible and authentic. In particular, those forms of evidence that are the product of complex processes of quantification or calculation work as 'technologies of trust' not despite but because the actual chain of evidence production is traceable only for professionals (Porter, 1995). The result bears the epistemic and/ or political authority of something that is neither controversial nor changeable: it has become a matter of fact. Evidence in its various manifestations has the potential to link different social spheres by mobilizing 'boundary objects' – simulations, visualizations and indicators that travel between science, policy and the rest of society once they have been recognized as reliable facts (Morgan, 2011; Star & Griesemer, 1989): 'It is through these processes that facts produced in one locality come to speak with authority to other questions, even to other fields, times and places' (Morgan, 2011, p. 7).

Experts have to be prepared to struggle for authority and acceptance, faced with changing and contradictory expectations of their role, temporal restrictions and multiple understandings of objectivity. The many ways that experts cope with this pressure depend, above all, on the values and norms, the administrative and political cultures and the epistemological premises that interpenetrate expertise in specific national and local contexts (Jasanoff, 2005; Strassheim, 2015).

What happens when expertise is politicized? In general, politicization occurs whenever issues in society become problematic and the aim to regulate or transform them is communicated in the public sphere and/or in the sphere of collectively binding decision-making (Turner, 2006; Young, 2004; Zürn et al., 2012). Following this definition, politicization happens whenever divergent perceptions or value conflicts are articulated, mostly in order to translate them into collective actions.

In addition to the classic concept of politicization in the public sphere (Arendt, 2007; Habermas, 1987) the definition given above includes the possibility of silent politicization. Silent politicization occurs whenever problematic issues are articulated in small circles, closed networks or other non-public constellations in which collectively binding decisions are influenced, prepared or realized (Zürn & Ecker-Ehrhardt, 2013, pp. 19–20). Silent politicization serves purposes of regulating contested matters 'by stealth' (Majone,

Table 30.1   General modes of politicization

	Public	Closed
Contents (policies)	(1) classic politicization	(3) silent politicization
Conditions (polity)	(2) reflexive politicization	(4) systemic politicization

Source: Translated and adapted from Zürn and Ecker-Ehrhardt (2013, p. 20).

2009). In contrast, de-politicization takes place whenever matters become uncontested and unquestioned. De-politicized matters enter what Schütz once called the 'zones of things just taken for granted' or even the 'regions of our complete ignorance' (Schütz, 1959, p. 78).

Table 30.1 presents four basic modes of politicization, analysed along two dimensions: the sphere of politicization (public versus closed) and the object of politicization (see also Zürn, 2013, p. 20). Basically, politicization may result in reflections about the processes of decision-making and its contents (that is, the policies) or it may concern the conditions of policy making, the institutions and principles of legitimation and representation (that is, the polity). In the latter case, politicization is about both the foundations of political order and the very possibilities of politicization itself.

It follows from this that there are four basic types of politicization: (1) classic politicization, where concerns are raised in the public sphere to provoke collective action and/or activities of collectively binding decision-making; (2) reflexive politicization, where the institutional foundations of policy making (rather than the policies) are challenged publicly (Beck, 1992); (3) silent politicization, where problematic issues are regulated or transformed in back rooms or closed shops, for example by lobbyists, experts and technocrats, professional associations or think tanks; and (4) systemic politicization, where power asymmetries, selective perceptions, values or world views interpenetrate political institutions and procedures, technical arrangements, complete knowledge systems or, even more fundamentally, the conditions of subjectivity and individuality without being visible (Barry, 2001; Foucault, 1980).

Experts and science advisors masterfully play with the public and the closed dimension of politicization. The 'drama' of policy expertise lies precisely in the fact that experts have to perform across multiple audiences (for an analysis of expertise in the tradition of Erving Goffman, see Hilgartner, 2000; on the 'background work' of experts, see Kennedy, 2016). As medical professionals, engineers or climate experts enter the stage, they may be able to impress those who watch and listen. They also have to be prepared, however, to shift the struggle for political and epistemic authority to the back stage. Faced with changing and contradictory role expectations, temporal restrictions and contradictory evidence, they employ multiple techniques and practices to secure their claim for objectivity while raising the attention of political actors and citizens. The doctrine of separating expertise from politics and of treating experts as if they were members of an 'autonomous republic' (Beck, 2015) increases the pressure on experts and facilitates a drift to silent politicization, where the consequences, conflicts and side effects of politically disinterested scientific advice can be domesticated and controlled. As studies have shown, neutralizing EBPM or shielding the production of evidence from questions of political relevance might thus

result in a shift of such questions into closed spheres – agencies, advisory committees, expert networks – where the two sides, science as well as politics, are allowed to talk to each other and negotiate the terms and boundaries of expertise without public interference (Jasanoff, 1990; Rothstein, 2013; Strassheim & Kettunen, 2014).

The following three sections focus on the modes and consequences of silent politicization on different levels (micro, meso, macro) of policy formulation.

MODES AND MICROPOLITICS OF POLICY-BASED EVIDENCE

Studies on crime prevention have reported that policy makers sometimes base their stories about the success of family intervention programmes on weak methodologies and biased samples, ignoring the recommendations of science teams (Gregg, 2010, p. 16). In European immigration policy, evidence has been shown to play a substantial function, enhancing 'the credibility of agencies or policy positions, rather than improving the quality of an organization's output' (Boswell, 2008, p. 8). And the EU's 2009 Renewable Energy Directive, which mandated that road transport fuel in EU member states should comprise a minimum of 10 per cent renewable content by 2020, has been described as a prime example of the 'cherry-picking of evidence' (Sharman & Holmes, 2010).

These examples suggest that policy-based evidence making can be understood as a form of silent politicization that is either based on normative or cognitive selectivity (Boswell, 2009; McGoey, 2007; Scott, 1998). Evidence is selected to silently support and substantiate political values (that is, normative selectivity), or it is used as a resource to limit public perception and to create zones of ignorance (that is, cognitive selectivity). Moreover, by resting exclusively on closed circles of epistemic and political authority while excluding others, policy-based evidence is built upon power asymmetries between actors or between complete systems of science-policy interaction.

From this double selectivity of evidence, four different modes of 'policy-based evidence' can be identified: (1) knowledge monopolization and fragmentation, defined as asymmetry in the cognitive resources and information base of actors, may lead to cognitive closure, ignorance of knowledge pluralism and a more or less explicit tendency to protect the cognitive core of organizations or networks at the science-policy interface against contrary evidence (Halffman, 2009); (2) cherry-picking and blame avoidance – strategies of selecting, spinning or presenting evidence so as to shift responsibilities to other actors (Hood, 2010); (3) black-boxing and obscuration, which result from a blind reliance on 'governing by numbers', complex statistical models and simulations that lead to epistemic opacity and a culture of self-confirmation (Gramelsberger, 2010; Porter, 1995); (4) over-simplification and objectivation, imposed by large-scale planning schemes and management techniques based on a small number of rational principles; they put actors in 'classification situations' (Fourcade & Healy, 2013) of performance measurements or benchmarking that ignore local or practical forms of knowledge and possibly lead to failures in social order and the incapacitation of civil society (Miller, 2008; Scott, 1998). Table 30.2 presents these four modes, ordering them by their dominant type of selectivity (this is a revised version of the categorization in Strassheim & Kettunen, 2014, p. 5).

Policy-based evidence making has raised serious doubts about the legitimacy and transparency of the science-policy nexus. Experts are under increased public scrutiny

Table 30.2   Modes of 'policy-based evidence formulation'

	Actor-related asymmetries	System-related asymmetries
Cognitive	(1) knowledge monopolization and fragmentation	(3) black-boxing and obscuration
Normative	(2) cherry-picking and blame avoidance	(4) over-simplification and objectivation

Source: Adapted from Strassheim and Kettunen (2014).

while political actors are expected to refrain from ideology and search for new modes of 'evidence-awareness' and 'intelligent policy making' (Sanderson, 2011). Increasingly, EBPM is perceived as 'stealth advocacy' (Pielke, 2011) that transforms public conflicts into debates between experts and immunizes political issues against critique and opposition. Leaving aside legitimate concerns about fraud or manipulation of data, accusations that evidence-based policy is actually policy-based evidence might signify growing public awareness of the hidden political dimension of evidence-based policy.

In her analysis of the global politics of transgenic crops, Kinchy (2012) has shown that all strategies of policy-based evidence must be prepared for what she calls an 'epistemic boomerang': civil society movements, non-governmental organizations (NGOs) and farmers have already realized the political implications of industry groups' calls for 'sound science': 'the scientization of governance, far from creating a neutral basis for decisions, has the effect of excluding less powerful actors from policy debate' (Kinchy, 2012, p. 3). Thus, the answer to the silent politicization of EBPM is a public politicization by societal actors who question the neutral basis of expertise. As political and administrative actors seek new ways to legitimize evidence-based policy through even more robust standards and guidelines, the public debate becomes even more intense.

The next two sections address the reasons for this escalatory dynamic: the politics of standardizing evidence and the rise of the geopolitics of knowledge.

THE POLITICS OF STANDARDIZING EVIDENCE

Confronted with the 'epistemic boomerang' of public scepticism, identifying 'best evidence' has become an important topic in debates on EBPM (Munro, 2014). Organizations such as NICE (a member of the What Works Network) have the mission to determine the criteria for best evidence, provide guidelines and develop standards of methodological rigour. A direct result of these efforts is the emergence of the RCTs movement (Pearce & Raman, 2014).

RCTs are designed to control confounding factors with the goal of minimizing biases and inaccuracies in causal claims in policy interventions. The random assignment of participants to experimental or control groups ensures that the risk of confounding factors is equally distributed. In hierarchies of evidence standards, RCTs and experimental designs are seen as the 'gold standard' of evidence-based policy. With the multiplication of randomized experiments at institutes such as the Abdul Latif Jameel Poverty Action Lab (J-PAL) at the Massachusetts Institute of Technology (MIT), hundreds of policy interventions can be tested and re-tested at the same time all over the world in policy

areas such as education, finance, environment, health or energy policy (Banerjee & Duflo, 2012). RCTs provide policy makers with direct information on causal relations that can be used as a 'rule of thumb' in the further development of policy interventions (Berndt, 2015; Strassheim et al., 2015).

Standardizing evidence in terms of methodological rigour with RCTs at the top of the hierarchy has raised criticism (Berndt, 2015; Munro, 2014, pp. 58–65; Pearce & Raman, 2014; Reddy, 2012). Some argue that RCTs follow an excessive ideal of generalizability without being able to guarantee external validity, that is, that interventions tested by RCTs exhibit the same results in different populations (Munro, 2014, p. 61). This critique has already been countered by pointing out that a lack of effort is actually the problem: more and better data combined with an improved infrastructure of RCTs might help solve the problem (Howlett, 2009, p. 156). A second, more serious set of critiques focuses on the political bias of RCTs. The implicit premise of RCTs is their micro-interventionism, that is, their focus on individual and group behaviour as a unit of analysis. RCTs assume that 'small' interventions – adding a specific sentence to a tax letter or changing the design of pension enrolments – are superior to macro-level, structural interventions. Thus, larger questions on institutional reforms and changes in policy arrangements have been pushed to the background in favour of small interventions (Reddy, 2012).

Moreover, the massive spread of RCTs utilizing technological devices and mobile phone apps, especially in micro-financing projects in the global South, has raised concerns about a techno-based experimentalism in traditional societies such as Ghana or Ethiopia:

> These devices have become active elements in the socio-technical market arrangements that transform smallholders in the global South into more entrepreneurial economic subjects . . . They form subjects who are constantly on alert and for whom rational calculation becomes a daily life routine, legitimating their continuous and recurring use. It is in this sense that the devices of market-based anti-poverty programmes 'do things' and produce new realities. (Berndt, 2015, p. 16)

Finally, the expansion of the RCT movement is part of the larger politics of standardization (Demortain, 2008; Drori et al., 2003). As RCTs are rolled out across almost all policy areas, the movement risks becoming a form of methodological imperialism, creating an all-encompassing information architecture with clear hierarchies of evidence: 'the utopian ideal depicted by the Cabinet Office is one not of a multi-perspectival approach to research methodology, but a world where RCTs can be designed and implemented across almost all areas of policy, and are held up as the "gold standard" for evaluating success and failure' (Pearce & Raman, 2014, p. 396). It might be argued that RCTs have become an element of systemic politicization, strengthening the power of selected standards in EBPM and giving rise to a wave of micro-interventions as opposed to larger structural policies.

GEOPOLITICS OF KNOWLEDGE

As studies on the transnationalization of knowledge networks and policy consultants have shown, the tensions triggered by the reflexive politicization of evidence-based policy and the disputes about policy-based evidence making are not restricted to the national and international levels. They have already reached the 'global agora' of expertise (Stone,

2012). The emergence of such a global agora is based on three interdependent dynamics. Firstly, the 'rise of the unelected' (Vibert, 2007) – that is, the expansion of unelected bodies on multiple levels of governing such as government research organizations, risk assessors, audit agencies, accounting standards boards or regulatory agencies – has led to new questions about the problem-solving capacity of democratically elected bodies. Secondly, the increasing density and interconnectedness of knowledge networks among governments, private companies, researchers and civil society organizations change the ways that evidence and expertise are translated into policy making (Stone, 2012). 'Meta-organizations' (Ahrne & Brunsson, 2008) are providing a platform for worldwide coordination, cooperation and collaboration among experts from industry, government, academia and civil society. As global standard-setters, they are rapidly providing guidelines and indicators to form a point of reference for all other regulatory bodies involved (Demortain, 2008). Thirdly, tools and arrangements of worldwide comparison have widened the horizon of mutual control and coordination. Rankings and ratings translate the specificities of local contexts into globally communicable performance measurements (Espeland & Sauder, 2007; Papaioannou et al., 2006). The 'Lisbon scorecard', issued by the Centre for European Reform (CER), classifies countries according to their economic and social performance. Depending on their position, they are either declared as 'heroes' of European economic and social policy or as 'villains' (CER, 2010). Tools such as the Lisbon scorecard use quantifications and rhetorical strategies to mobilize political praise and blame. They facilitate the decontextualization of social and economic trajectories of European countries by subsuming them under a common narrative of forerunners ('heroes') and laggards ('villains').

Taken together, these dynamics are part of what has been called the 'postnational constellation' (Habermas, 2001). Agentification, global networking and international comparisons force nation-states to open up to alternative modes and standards of expertise. As a consequence, previously unquestioned arrangements of policy-relevant knowledge production are no longer taken for granted. They are confronted by, and collide with, different norms of scientific integrity and political accountability. As communication expands internationally, different contexts and cultures of expertise increasingly come under pressure by the 'geopolitics of knowledge' (Mignolo, 2005).

Studies on science advisory systems and expert cultures have repeatedly shown that different nations handle societal insecurities in fundamentally different ways. Understandings of expertise, modes of evidence and procedures of public deliberation vary depending on the cultural, institutional and discursive embeddedness of science in society. For example, the precautionary principle that has been made a statutory requirement in the EU is deeply intertwined with such 'civic epistemologies' (Jasanoff, 2005; Stirling et al., 2006). In Germany, with its corporatist tradition of expertise, the precautionary principle (*Vorsorgeprinzip*) – rooted in the socio-legal tradition of social democratic ideas since the 1930s – is embraced as the expression of a collective and carefully negotiated mode of reasoning between state, society and science. The precautionary principle basically supports taking protective action in the face of risks, for example, withdrawing a potentially hazardous product from the market even before there is complete scientific proof of that risk. In contrast, the primary concern in the USA for many decades has been the improvement and integrity of scientific knowledge as a rationalizing force in society and as a guarantee of sound decision-making. From this perspective, the precautionary

principle might appear to impede sensible decisions; from the other perspective, it might highlight the benefits of taking into account the fallibility of human understanding.

The global debate on the irradiation of food is an illuminating case of the collision between different understandings of expertise and uncertainty (Strassheim, 2014). In April 2014, the Food and Drug Administration (FDA) amended its food additives regulations to allow crab, shrimp, lobster and other crustaceans to be radiated at a maximum dose of 6.0 kiloGray in order to eliminate illness-causing microorganisms. In the USA, this technique of food conservation has a long-standing history. In contrast, many European governments are reluctant to permit food irradiation. Since 1999, the EU has only allowed irradiation for very specific foods such as spices, dried herbs, vegetable seasoning or frozen frogs' legs. Germany has forbidden the use of radiation since 1959, and allows it only for those foods specified in EU guidelines. Because of public concerns and a lack of evidence on the effects of radiation on people, the European Food Safety Agency has recommended using food irradiation only in combination with an integrated food safety management programme. The authors of a recent report[2] funded by the United States Department of Agriculture (USDA) and issued by the Council for Agricultural Science and Technology (CAST), an NGO, have taken the controversy about food irradiation to a global level. Such precautions, the authors of the CAST report warn, 'will suppress innovation to the detriment of both the economy and human health'. Critics such as the former director of the White House Office of Information and Regulatory Affairs (OIRA), Cass Sunstein, argue that the precautionary principle has a paralysing effect that results in 'real errors and significant confusion in thinking about risks' (Sunstein, 2014, p. 154; see also Purnhagen, 2014).

In a world of global risks, questions on how to orchestrate policy-relevant knowledge in the face of uncertainties are thus increasingly becoming a subject of boundary-crossing controversies. Recent efforts to increase regulatory coherence and reduce trade barriers, such as the Transatlantic Trade and Investment Partnership (TTIP), are not only controversial because of their underlying economic principles, they also incorporate certain worldviews on how to harmonize standards of expertise and public knowledge production (Morin et al., 2015). Against this quest for a universally applicable understanding of evidence, STS scholars have repeatedly argued for 'epistemic subsidiarity' (Jasanoff, 2013a) to ensure sensitivity for different ways of public deliberation in a more inclusive regime of global expertise. Ignoring the political and cultural context in which expertise operates and insisting on a 'one-size-fits-all model of expertise' (Beck, 2012) may, paradoxically enough, enhance the politicization of EBPM rather than reduce it.

CONCLUSIONS

This chapter has focused on the relationship between politics, expertise and evidence in public policy formulation. Taking the paradoxical dynamics between scientization as a starting point, it argues that we should systematically distinguish between scientific research and expertise. Experts are always already boundary workers. Policy-relevant facts are the result of a complex and intense struggle for political and epistemic authority on both sides, science as well as politics. Such an understanding serves to decouple the (political and scientific) debate on the foundations of expertise from the debate on the

foundations of science. The question is not so much how to prevent politicization, but rather how to make sure that it is done in a public, legitimate and scientifically valid way. Efforts to restore the reputation of EBPM by sharply demarcating it from policy issues might instead result in 'silent politicization'. Attempts to politically neutralize EBPM or shield the evidence from questions of political relevance might shift such questions into the silent sphere of politicization. Especially under the conditions of the 'postnational constellation', the silent politicization of EBPM has become a multi-level phenomenon. It includes the micropolitics of black-boxing, blame avoidance, knowledge monopolization or over-simplification. At the meso-level, the quest for a more standardized and professional EBPM has led to politics of standards, with RCTs as the 'gold standard' at the top of the pyramid. At the global level, actors engage in the 'geopolitics of knowledge' to identify a common and collectively binding model of evidence and expertise that supersedes cultural and political differences. Such a 'one-size-fits-all' model of expertise is, paradoxically enough, instrumental in enhancing the politicization of EBPM rather than reducing it. In trying to solve the deficits of expert advice, proponents of EBPM have involuntarily helped to turn it into a public problem. The recent debates on post-truth politics could therefore be understood as a dialectical consequence of the truth politics driven by EBPM.[3]

In August 2014, experts and policy makers from 48 countries gathered in Auckland, New Zealand to debate the state of EBPM and to think about pathways to a 'science of science advice' (Doubleday & Wilsdon, 2015; Jasanoff, 2013b). The meeting resulted in a call to strengthen collaboration between advisory systems and an agreement to establish an International Network for Government Science Advice (INGSA):

> [INGSA] provides a forum for policymakers, practitioners, academies, and academics to share experience, build capacity and develop theoretical and practical approaches to the use of scientific evidence in informing policy at all levels of government. INGSA is committed to diversity, recognizing the multiple cultures and structures of governance and policy development and does not seek to endorse any particular form or structure of science advice. (Wilsdon et al., 2015, p. 16)

Alongside INGSA, the Organisation for Economic Co-operation and Development's (OECD) Global Science Forum is reviewing the systems of scientific advice across member countries, and the United Nations has established a Scientific Advisory Board. In summer 2015, the European Commission decided to establish a collective body for scientific advice, the High Level Group of Scientific Advisors, to fill the 'institutional void' in the European system of policy advice (Doubleday & Wilsdon, 2015; Strassheim, 2016). Despite these efforts, there are a number of common challenges across the worldwide 'ecosystems of expertise' (Doubleday & Wilsdon, 2013): how to meet the demands and rhythms of policy formulation and decision-making while keeping advice independent; how to resolve conflicts when facts are unclear and values are in dispute; and how to strengthen transparency, learning and criticism across cultures of expertise while maintaining respect for different understandings of public knowledge production.

NOTES

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2. http://www.cast-science.org/file.cfm/media/products/digitalproducts/CAST_Issue_Paper_52_776B77B328 854.pdf.
3. https://en.oxforddictionaries.com/word-of-the-year/word-of-the-year-2016.

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31. The changing role of the public in policy formulation: from mass media to social media
Dennis Linders and Liang Ma

INTRODUCTION: 'WE ARE THE ONES WE'VE BEEN WAITING FOR'

Democratic societies across the world have witnessed a collapse of confidence in public decision-making and a growing distrust of political representation, resulting in a general estrangement between elected representatives and the represented (Albrecht, 2006). An overwhelming majority of citizens feel they lack influence over public decision-making (Hansard Society, 2009), and that their voices are ignored in favor of pollsters, lobbyists, political handlers and special interests (Miller, 2008). Consequently, virtually every one of the West's democracies has experienced sharp drops in voter turnout, the erosion of party loyalty, and a bitter rise in cynicism toward the institutions of government (Coleman & Gøtze, 2001). Advancements in information and communication technologies (ICTs) and the arrival of the 24/7 news cycle have only reinforced these trends by making 'the distortion of misrepresentation of the preferences of the electorate . . . more transparent than ever before' (Snellen, 2001, p. 45).

This tide of voter disillusionment was stemmed (if only briefly) by Barack Obama's historic victory in the 2008 US presidential campaign. The *New York Times* reported that Americans showed 'more interest and passion about this election than they have in nearly 50 years' (Dwyer, 2008) as Obama's campaign drew in 'legions of voters who had been disengaged and voiceless' (New York Times, 2008) – leading Tom Brokaw of NBC News to label Obama's victory 'the end of apathy' (Stanley, 2008).

Importantly, this reversal rested in no small part on the Obama campaign's successful and innovate use of Web 2.0 participatory technologies, particularly social media. The campaign constructed a vast social network of immense technical sophistication and was able to simultaneously coordinate and empower grassroots supporters by uniting them around a common vision that 'we are the ones we've been waiting for.' This groundbreaking use of online collaboration, bottom-up participation, micro-blogging and web-based fundraising essentially 're-wrote' the rules of American politics and set a new standard for the political use of the Internet across the globe, with the European political establishment, among others, rushing to 're-create Obama's online energy' (Risen, 2009). In short, 'how politicians and the public interact will never be the same' (Greengard, 2009, p. 16).

President Obama entered government with the expectation that he would use Web 2.0 interactivity to revolutionize governance as much as he did political campaigning by 'rebooting American democracy in a 21st-century model of participation' and forming a 'newly interactive government' (Marks, 2009). Obama sought to follow through on this promise on his first day in office by committing his administration to an 'unprecedented level of openness in Government,' including by directing the heads of all executive agen-

cies to embrace social media and other new technologies. The goal of these efforts was to bridge 'the gap between the American people and their government' (WhiteHouse.gov, 2010) and to offer 'Americans increased opportunities to participate in the policy making process and to provide their Government with the benefits of their collective expertise and information' (Obama, 2009).

Today, every single federal agency maintains a social media presence, while over 80 percent of American local and state governments are represented on social media (Mergel, 2015). These experiences have been replicated across the globe, as public leaders recognize the potential of social media and the Internet to improve both government and governance. As a result, social media have become 'a central component of e-government in a very short period of time' worldwide (Bertot et al., 2012) and promise to 'dramatically alter how the public and government interact, develop solutions, and deliver services' (Bertot et al., 2010).

From Mass Media to Social Media: Revitalizing Citizen Engagement

The rise of social media has been driven by the remarkable growth of such platforms as Facebook (1.8 billion active users), Twitter (6,000 tweets posted every second), and YouTube (137,000 videos viewed every second) (InternetLiveStats.com, 2016). It is important to understand how these trends impact the traditional media landscape and the pivotal role of social media in the processes and outcomes of policy formation. Communication during the dynamic and interactive process of policy formulation flows in two directions. First, the government consults the public ('pulls' information) to avoid unpopular policies and win legitimacy and reelection. Second, proposed and adopted policies formed by the government are circulated (that is, 'pushed') by media channels to inform everyday citizens, businesses and other stakeholders.

In this arrangement, mass media have proved highly effective and efficient in informing and influencing the public ('pushing'), but have been subject to several limitations that hinder public involvement in policy formation ('pulling'). Specifically, mass media rely on a controlled, one-to-many 'broadcasting' approach that has grown increasingly outdated in today's wired society. Social media are fundamentally different from traditional mass media in ways that well complement the limitations of traditional mass media. Specifically, the real-time interactivity afforded by social media democratizes citizen-government engagement by providing new channels for 'many-to-many' communication, with everyone able to participate and voice their opinion in real time.

These unique attributes of social media and the Internet offer a number of key advantages over offline approaches in fostering both individual and collective action (Table 31.1).

These advantages have produced a civic landscape in which it is significantly easier and cheaper to mobilize citizens and facilitate civic participation, while also reducing the reliance on traditional institutions of collective action, such as political parties, interest groups and media outlets (Flanagin et al., 2006). Yang and Lan, for instance, find that 'the Internet has successfully reduced resource differences between policy experts and the citizens' (2010, p. 432).

These changes in the media and civic environment hold ample implications for policy-making as the connectivity, interactivity, and immediacy provided by social media open

Table 31.1   Advantages of social media over offline approaches

Individual action	Collective action
● Easier to access information ● Ability to contribute anonymously and experiment without commitment ● Ability to function in a more comfortable and safe environment (such as at home) with reduced inhibitions ● Easier and more convenient to participate without concern for time and space ● Easier to find causes and opportunities of interest ● Potentially easier for those with disabilities to volunteer	● Easier to discover and attract members with shared interests ● Easier to exchange information, encouraging contributions from those with limited time ● Easier to make group decisions at a larger scale and to integrate individual contributions ● 24 hour a day reinforcement at low cost via interactive feedback mechanisms ● Dramatically easier logistics due to elimination of time and space constraints, allowing problems to be brought to the team rather than moving the team to the problem ● Easier to supervise the group and maintain direct contact between leader and collaborators with a minimized need for hierarchy

Source: Adapted from Amichai-Hamburger (2008).

up new opportunities for collaboration and collective decision-making, and for collecting citizen preferences with far greater sophistication. As a result, the role of the public – particularly ordinary citizens – in the formulation of public policies has been and will be substantially transformed and strengthened. This potential was most powerfully demonstrated by the so-called Twitter Revolution that sparked the Arab Spring in the Middle East, with young citizens using social media to organize, advocate for change and press for their demands. This movement resulted in dramatic political changes in countries like Tunisia, Egypt and Iran, demonstrating that 'information technologies have the potential to strengthen social movements and ultimately transform society' (Sandoval-Almazan & Gil-Garcia, 2014).

But while the potential impact of social media technologies on the functioning of government may well be 'profound,' social media also present significant 'challenges in the areas of policy development, governing and governance, process design, and conceptions of democratic engagement' (Bertot et al., 2010, p. 53).

To explore these opportunities and challenges in greater detail, the next section will outline and apply a conceptual framework for policy formulation in the age of social media, including through an in-depth review of the uses of social media – and the differences with the traditional mass media – in: (a) consultation and 'ideation'; (b) coproduction for collaborative policy solutions; and (c) monitoring through feedback loops. The chapter will conclude with a discussion of the remaining challenges, open research questions and implications for policy formulation.

ANALYSIS: POLICY FORMULATION IN THE AGE OF SOCIAL MEDIA

One key challenge in understanding the role of social media in public policy and governance is that academics and practitioners searching for scholarly insights must navigate a complicated, sprawling universe of competing concepts and labels, both old and new. These span such diverse domains as public administration, computer science and communications, and include crowdsourcing, 'e-participation,' 'collaborative government,' 'open government' (Obama, 2009), 'Wiki Government' (Noveck, 2009) and 'government as a platform' (O'Reilly, 2010).

To bypass this confusion, this chapter uses the consolidated 'We-Government' framework proposed by Linders (2012), which categorizes the variety of types and approaches of citizen-government interactions in the age of social media as well as their respective benefits, shortcomings and relevant applications. This framework is based on the concept of citizen coproduction, in which government treats the public not as customers but as partners, expanding the role of the citizen from one of 'mere passive consumption of public services to one of active involvement' (Mattson, 1986, p. 51). In such a coproduction arrangement, citizens contribute resources in the form of 'time, expertise, and effort' in order to achieve 'an outcome, share more responsibility, and manage more risk in return for much greater control over resources and decisions' (Horne & Shirley, 2009, p. 10). Citizen coproduction has traditionally been limited to activities such as neighborhood watches and resident recycling. But today, social media promise to revitalize citizen coproduction by equipping citizens and government with unprecedented mechanisms for many-to-many communication and real-time collaboration.

The We-Government framework defines three main archetypes of citizen coproduction in the age of social media. 'Citizen sourcing' initiatives seek to use social media to empower citizens to support and inform government action. 'Government as a platform' initiatives seek to use social media to enable governments to support citizen action (such as through 'nudging' and real-time information sharing). And 'do it yourself government' initiatives seek to use social media to enable citizens to help one another and bypass government altogether in order to collaboratively deliver public value on their own (such as through the 'sharing economy' and ICT-facilitated carpooling). This chapter focuses on the first of these archetypes and examines the role of social media in policy formulation through the 'citizen sourcing' lens (Figure 31.1). This approach acknowledges that the government remains the core player in this process due to its professional expertise and coercive authority, but recognizes that the public can and will play an increasingly instrumental supporting role through social media.

As illustrated in Figure 31.1, citizen sourcing approaches can be applied at each stage of the policy cycle with important implications for policy formulation. Specifically, while only the first type of citizen sourcing ('e-consultation and ideation') is directly used in the process of policy design, policy makers need to be equally cognizant during the design phase of the ways in which social media offer new types of policy solutions (such as via crowdsourcing techniques) and real-time feedback loops.

DESIGN PHASE	EXECUTION & IMPLEMENTATION PHASE	MONITORING & EVALUATION PHASE
e-Consultation & Ideation Example: Regulations.gov	Crowd Sourcing & Co-Delivery Example: Challenge.gov	Real-time Citizen Reporting Example: SeeClickFix
In the design phase, the government seeks to develop a course of action for addressing a specific policy issue. Citizens and government can use social media to partner on the design of policies through *collaborative decision-making,* including by providing high scalable channels for real-time citizen consultation.	While the implementation of public policy usually depends heavily on government institutions, citizen-government collaboration facilitated by social media can provide new options for policy implementation by *collaboratively co-creating and co-delivering service delivery* in partnership with the public.	Governments monitor the success and effectiveness of policies to determine whether they should be terminated, sustained or revised. In support, social media offer a *rich new channel for real-time feedback* that can help policy makers determine the effectiveness of programs and opportunities for improvement.

Source: Adapted from Linders (2012).

Figure 31.1   We-Government framework: 'citizen sourcing' in the age of social media across the three stages of the policy cycle

e-Consultation and Ideation: Using Social Media to Collect Input and Ideas for Designing Policies

Social media can improve the design and formulation of public policy in two ways: first, by promoting public engagement and making it easier to collect public opinion (traditionally termed 'e-participation') and second, by creating new mechanisms for collecting ideas and tapping into the public's subject matter expertise (often termed 'ideation'). Figure 31.2 illustrates the evolution of channels for consultation in the age of social media.

Social media and online citizen consultation hold a number of advantages over traditional approaches. First and foremost, e-consultation lowers barriers to entry, reduces costs and increases convenience through digitization and automation and by eliminating the constraints of time and space. This has the potential to amplify citizen voices, reduce the distance between representatives and the represented, and improve transparency and accountability (Curtin & Meijer, 2006). Effective opportunities to participate, in turn, make it more likely that citizens will accept the outcome. The move toward 'e-rulemaking' provides a good example: Carlitz and Gunn (2002) argue that the broad level of public participation in the rulemaking process envisioned by the Administrative Procedure Act of 1946 was simply not feasible until the advent of mass Internet access. Indeed, Shafie (2008) finds that the move toward online solicitation of input on proposed rules not only reduced the cost of collecting and processing public comments but also increased the public's role in rulemaking by leveling the playing field for non-industry-based interests. This widening

Age of Mass Media		
Town Halls	Expert Panels	Letter Writing Campaign

Age of Social Media					
e-Town Halls	e-Rule-making	Online Ideation	'We-The-People' Petitions	e-Democracy Parties	Virtual Senator
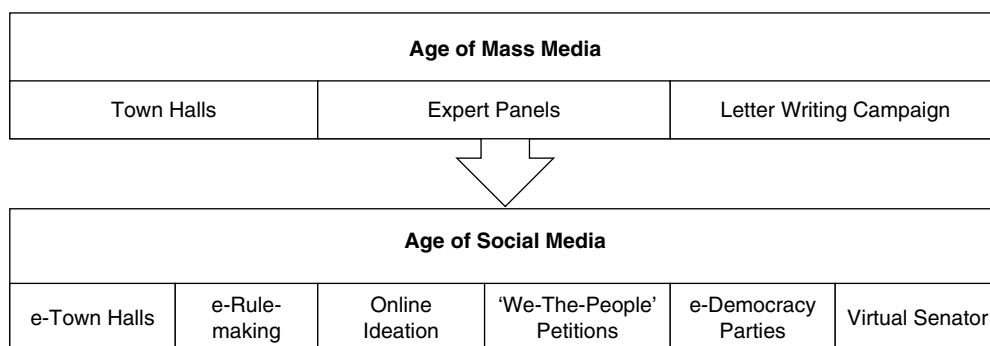
Figure 31.2   Examples of e-consultation and ideation

and deepening of participation enhances the diversity of feedback, resulting in more effective rules and, ultimately, making government more responsive to the will of the people.

e-Consultation and modern computing enable governments to collect citizen preferences with far greater levels of sophistication than before, and provide more flexible and equitable alternatives to periodic binary votes that tend to over-simply the universe of options (Kumar & Vragov, 2009). e-Petitions provide an informative example: whereas before citizens could only decide whether to sign or not sign a petition, e-petitions can provide a mechanism for citizens to both vote and comment. This then enables citizens to better articulate their views while reducing the false heterogeneity of most issue-based campaigns. Similarly, e-rulemaking not only makes it easier for citizens to comment but also enables participants to view, support, build from and collaborate with the comments of others, in a far more interactive process that significantly deepens and enriches stakeholder dialog (Carlitz & Gunn, 2002).

Taking advantage of these approaches, the United States hosts centralized national portals for collecting input from citizens on proposed regulations. The recently redesigned federalregister.gov, for instance, enables citizens to be notified of government actions and to propose regulations and provide input into them. The associated regulations.gov portal enables citizens to comment on proposed rules in an interactive fashion. Leading by example, the Obama Administration experimented extensively with online citizen participation, such as via the 'Open for Questions' section on whitehouse.gov, which solicited over 465,000 votes from 28,000 citizens on more than 13,000 potential questions on the economy, allowing the President, as he explained via an online video, to 'get a snapshot of what Americans across the country care about' (whitehouse.gov/openforquestions). Similarly, Singapore launched the 'Our Singapore Conversation' initiative in 2012 to organize 660 dialog sessions with almost 50,000 residents that was complemented by extensive online discussions (reach.gov.sg/oursgconversation). These efforts helped the government better understand the needs of its residents, in an effort to strengthen citizen trust and reach consensus on policy priorities.

Scotland and England, meanwhile, have adopted 'e-petition' systems that allow citizens to bring bills to a parliamentary vote. Drawing from this example, the White House launched the 'We-the-People' petitioning platform, on which any petition gaining 100,000 online signatures will result in a formal response from the White House (Zavattaro & Sementelli,

2014). Chile has gone further, introducing a 'virtual senator' mechanism that enables citizens to contribute to the making of laws (Padget, 2005). Taking this to the next level, Sweden has 'e-democracy' political parties whose representatives' votes are bound by the outcomes of online polls of the party's members (Boyd, 2008).

e-Consultation is not the sole preserve of Western democracies. China has begun to hold 'e-consultation' sessions on proposed laws, with former President Hu Jintao stressing the Internet's value as a potent channel for gathering 'wisdom' from the public (Xinhua News, 2008). During political events like the annual meeting of the National People's Congress, the government also invites citizens to submit their opinions via text message. A campaign called 'Ask the Premier' during the 2008 annual session of the National People's Congress received more than a quarter million SMS (Short Message Service) messages from the public. But the lack of transparency in how the government uses and responds to online comments makes it difficult to gauge the extent to which this is influencing official government decision-making in China.

Governments have also begun to collect ideas (as opposed to suggestions and opinions) from the public via online 'ideation' tools so as to tap into the public's ingenuity to solve governmental problems. These tools use group filtering as a quality control mechanism to collaboratively identify and promote the best ideas. For instance, even before taking office, President Obama launched the innovative Change.gov site to collect input from citizens to set the agenda for his presidency, which within days of his election invited citizens to 'give us your ideas' and have 'your seat at the table' (change.gov). By its conclusion, over 125,000 citizens had provided in excess of 1.4 million votes on 44,000 different ideas.

Agencies have since followed the White House's lead – as they are now obligated to by the Open Government Directive – by collecting ideas from the public on their websites using the General Services Administration's 'Public Dialog Tool.' Agencies have used this tool and others like it to gather citizen comments on everything from the government's national broadband plan (at broadband.gov) to the business strategy of the Federal Aviation Administration (at faa.gov). These efforts have reverberated throughout the political system, with rapidly growing adoption at all levels of government. The city of Austin, Texas, for instance, collected ideas on how to improve its online services, while the city of San Francisco sought online suggestions for cost efficiencies (at SFideas.org).

Cities from Chicago to Belo Horizonte, Brazil have leveraged social media and online connectivity to facilitate participatory budgeting processes. Belo Horizonte, for instance, has since 2006 complemented its face-to-face participatory budgeting events with a 'digital participatory budgeting' system. Using this system, residents were able to allocate a total of US$11 million to one of four public work projects for each of the city's nine districts. Online participants had the convenience of participating any time over a 42-day period. Nearly a third of the overall voters would not have participated had it not been for the Internet (Leighninger, 2011).

Crowdsourcing and Co-delivery: Using Social Media to Facilitate Collaborative Policy Solutions

It is important that policy makers think about the Internet and social media not just as a way to collect input but also as a source for new kinds of policy solutions that may not have been feasible in the past. In fact, governments today can leverage social media, open

Age of Mass Media		
Park Volunteer and Crossing Guards	Charter School	Volunteer Firefighters

Age of Social Media				
Volunteer Matching Platforms	Challenge.gov	PeerToPatent	Public Wiki	Open Source Solutions
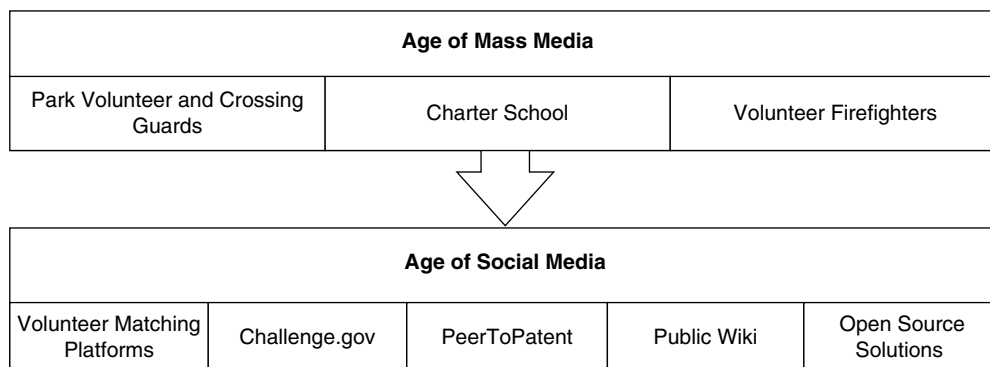
Figure 31.3   Examples of crowdsourcing and co-delivery

data and online collaboration platforms to collaborate with the public (that is, 'the crowd') to resolve a problem or co-deliver a service by tapping into the skills, talent and knowledge outside government (often termed 'crowdsourcing'). Figure 31.3 illustrates the evolution of channels for co-delivery in the age of social media.

Futurists like Tim O'Reilly see in social media and online collaboration platforms the potential to move away from 'vending machine government,' whereby citizens input tax dollars in exchange for government services – and then shake the machine a bit when they are unhappy. Rather, he and his peers envision using social media and other collaborative technologies to open up government and adopt a more inclusive, collaborative approach to service delivery and problem solving that taps into the capabilities that exist outside government in civil society and the marketplace (2010).

This is much more viable today than in the past because the low transaction and communication costs of the Internet enable human collaboration on a vast scale without 'relying on market pricing or managerial hierarchies to coordinate their common enterprise' (think Wikipedia) (Benkler & Nissenbaum, 2006, p. 394). Another new development is that everyday citizens now often have all the necessary inputs at their disposal for 'effective productive activity' – for instance, the computers we have at home are often just as capable as those we use at work, enabling us to produce the same things in our personal lives that may previously have required well-resourced professional institutions.

Taken together, Benkler and Nissenbaum (2006) argue that these trends enable not just mass consumption but also, for the first time, 'mass production' – that is, the Internet unlocks new opportunities for individuals to put their free time to more productive uses than simply passive consumption (like watching TV). In this way, Clay Shirky concludes that 'the wiring of humanity lets us treat free time as a shared global resource' (2010, p. 27). These new capabilities and opportunities have given rise to acts of volunteerism that 'have beat the largest and best-financed business enterprises in the world at their own game' (Benkler, 2006, p. 59), from Wikipedia to Linux.

Certainly, private citizens increasingly perform functions considered the exclusive reserve of government only a few years ago: self-organized citizen groups play border guard; foreign policy objectives are advanced by communities of citizen hackers; private foundations work to eradicate diseases with or without government support; and the

world's most powerful computer, tasked with searching for extraterrestrial life, is the product not of a large, well-resourced National Aeronautics and Space Administration (NASA) project, but rather of thousands of everyday citizens donating and networking their home computers' idle processing cycles ('SETI@Home').

In a similar fashion, Jones and Mitnick (2006) find that information technology (IT)-proficient volunteers have eagerly 'begun to draw on open source models of organization to mobilize and coordinate vast resources from across the world' to support international disaster response and recovery efforts – greatly aiding the efforts of government first responders on the ground by using data analytics to identify resources, construct situational awareness, match family members, determine optimal distribution routes, and coordinate assistance, which can be done anywhere. Similar approaches have been used in policy issues as varied as child trafficking and public health. Netizens in China, for instance, share photos on micro-blogs of missing children and suspected victims to identify matches and reconnect children with their parents. These activities, while controversial with regards to children's privacy, have been successful in allowing police departments to strengthen their fight against child trafficking. Similarly, the government of Singapore has developed a mobile phone app to enable residents to report mosquito breeding grounds on a map. In this way, the government is able to tap into its citizenry to prevent mosquito-borne viral diseases that saw 20,000 cases in 2014 alone.

Recognizing the potential of social media to facilitate citizen action, policy makers – burdened by persistent budget deficits and forced to do 'more with less' – are increasingly (and conveniently) concluding that the Internet empowers citizens to do more for themselves, reinvigorating the old concept of citizen coproduction (Linders, 2012). With ICT enabling 'many more people to work together,' Noveck envisions that 'we can redesign our institutions' around collaborative problem solving and deliver a 'new kind of democratic legitimacy' (2009, p. xiv). She envisions a 'wiki government' with 'shared processes of responsibility in information-gathering and decision-making that combine the technical expertise of public experts with the legal standards of professional decision-makers' (p. 37). Putting theory into practice, Noveck helped develop the PeerToPatent online platform with the US Patent Office, which enabled industry, academia and the general public to contribute to patent reviews by providing examiners with relevant insights and artifacts to determine the validity of patent applications.

In recent years, US government agencies have put significant effort behind crowd-sourcing initiatives that 'outsource' government tasks to the public. The General Services Administration's BetterBuyProject.com, for instance, opened up the acquisition planning process by pre-releasing Requests for Information as a wiki, offering the public the opportunity to improve upon the government's technical and procurement documents to obtain superior products and better contract terms. At a much larger scale, NASA used a 'micro-tasking' platform to elicit contributions from over 85,000 volunteers to help map craters on Mars by sifting through a vast database of satellite imagery. These citizen volunteers, through a system of redundancy, have proved as effective as professionals at virtually no cost and at hundreds of times the speed (Shirky, 2010).

The Obama Administration made a significant push to replicate and scale up this early experimentation in citizen sourcing, recognizing that many of the best ideas come from outside Washington. The Open Government Directive mandates agencies to adopt 'innovative methods, such as prizes and competitions, to obtain ideas' from the public

Age of Mass Media		
911 / 311	Paper-based Survey	Professional Impact Evaluation

Age of Social Media			
SeeClickFix	Twitter Sentiment Analysis	FixMyStreet.com	Online Satisfaction Polls
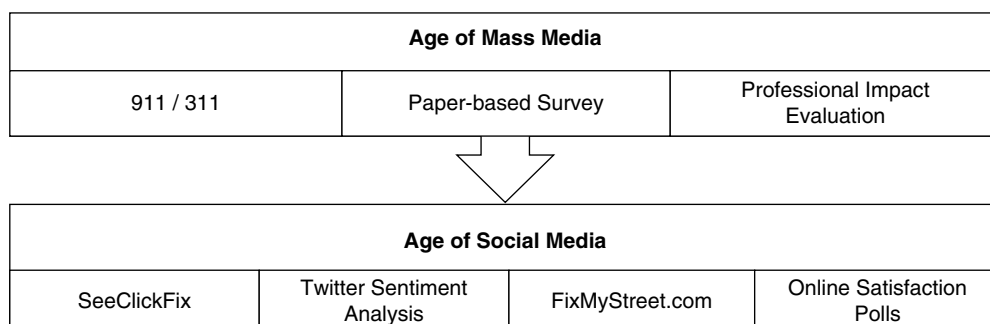
Figure 31.4   Examples of real-time citizen reporting

(Orszag, 2009, p. 10). In support, the America COMPETES Act promotes the use of prizes and rewards to encourage the public and firms to contribute to public challenges. Today, governments and policy makers can post a problem to the dedicated Challenge.gov platform for citizens to resolve, with a prize awarded to the best solution (ranging from simple recognition to, at times, substantial sums of money).

Monitoring: Using Social Media as a Real-time Feedback Mechanism

The advent of social media and online interactivity also presents important implications for monitoring the outcomes and effectiveness of policies and government programs by providing a rich new source of real-time citizen feedback. In fact, citizen-owned information that might never before have reached decision makers can today be efficiently and effectively collected to inform government decision-making and policy evaluations (Linders, 2012). Figure 31.4 illustrates the evolution of channels for citizen reporting in the age of social media.

Recognizing the power of 'crowdsourced' evaluation systems like Yelp.com for restaurants and TripAdvisor.com for hotels, scholars advocate governments and policy makers to similarly adopt real-time, citizen-based evaluation systems to augment or substitute for official evaluation systems – both to save costs and to speed up the evaluation process (Dunleavy et al., 2005). Britain is very much at the forefront of this movement, for example, with its National Health Service (NHS) Choices website – marketed as 'your health, your choice' – which enables citizens to share feedback on their experiences and collectively rate their health facilities. A number of local governments in the United Kingdom also use FixMyStreet (SeeClickFix is a US equivalent), a reporting platform that enables the public to report issues such as potholes and graffiti on their mobile phones. This information helps both citizens and governments. Citizens benefit by being able to hold their government accountable and by knowing which hotspots to avoid. Policy makers, in turn, can leverage this data to examine the outcomes and effectiveness of government programs and policies (that is, road maintenance, appropriate level of resourcing for police and so on).

Singapore has sought to promote a more citizen-centric approach to public service delivery by centralizing its previously fragmented public reporting channels under the newly established Municipal Services Office (MSO), which released the OneService app as a single point-of-intake for citizen complaints. The app is as simple as 'snap, tag, and

send' a picture to report a municipal problem – while on the backend enabling government agencies and social organizations to efficiently categorize, process and resolve municipal issues. The government, in turn, can mine this information for trends and preventative policy solutions.

Social media can also provide new sources of information on government performance without the initiation of government. In China, for instance, the ubiquitous use of micro-blogging has empowered non-profits to collect detailed information on environmental quality and bypass the information monopoly of official statistics agencies, often suspected of data manipulation. Under the 'I gauge air quality for my motherland campaign' in 2011, numerous citizen volunteers purchased portable air quality monitoring devices to assess real-time air pollution in their neighborhoods. This urban air pollution monitoring campaign helped drive important revisions in public policy (Ma & Zhang, 2015). More broadly, the Chinese leadership views the Internet as among the few channels that allows them to gain insights on citizen satisfaction on government policies and programs.

The challenge, of course, is that 'the sheer volume of social data streams generates substantial noise that must be filtered in order to detect meaningful patterns and trends' (Kavanaugh et al., 2012, p. 481). Fortunately, digital tools are rapidly evolving to assist governments and policy makers in making sense of large amounts of citizen feedback. Researchers, for instance, can now conduct automated 'sentiment analysis' of Twitter messages (including within specific geographic areas) using machine learning approaches to identify the biggest concerns and general attitudes of the public on a particular topic (Zavattaro et al., 2015). Over time, this 'data mining of diverse real-time feeds of social streams' can equip policy makers with 'insights into the perceptions and mood of the community that cannot be collected through traditional methods' – in a way that is both cheaper and faster than traditional surveys and polls (Kavanaugh et al., 2012, p. 481).

While these tools and approaches are today best described as experimental, the rise of 'smart city' technologies – driven by the ubiquitous connectivity, connected citizens, and the advent of low-cost digital sensors that 'sniff, scan, probe, and query' – will soon give policy makers vast amounts of real-time data and 'digital traces' on public infrastructure performance and citizen activity (Townsend, 2013). Over time, advances in data science will enable government to translate this data into unprecedented insights for performance evaluations, policy outcomes, and the design of future policies and corrective actions.

DISCUSSION: IMPLICATIONS FOR GOVERNANCE AND REMAINING CHALLENGES

Social media provide a powerful new channel for improving the quality of government decision-making and policy formulation by enabling policy makers to tap into the citizenry's 'collective intelligence.' By widening and deepening participation, social media enhance the diversity of feedback, resulting in more effective policies and, ultimately, making government more responsive to the will of the people.

Some scholars go a step further and hold that online citizen engagement will reinvigorate democracy by providing new channels for addressing the problems of representative

democracy (Coleman & Gøtze, 2001), while making practical the democratic ideas of some of our greatest political philosophers (Hauben & Hauben, 1997). For instance, the case against direct democracy has largely been based on its lack of practical viability. Weber, for example, argued that citizen participation simply does not scale well, making it hard to organize and administer (quoted in Noveck, 2008). Web 2.0 participatory technologies, however, have put the validity of this claim into question. Most prominently, the Internet's ability to collapse time and space resolves Aristotle's belief that democratic governance can function only within the distance that a person can walk in a day, due to the necessity of active and full citizen participation (Jaeger, 2005), opening up new possibilities of direct democracy.

Indeed, with the practical obstacles to direct democracy out of the way, scholars have begun to speculate about the degree to which ICT-enabled direct representation will shift the balance of power between the elected and the electorate. At one extreme, e-democracy advocates argue that the Internet will transform democracy by undermining – and perhaps even rendering obsolete – the representative model in favor of direct democracy, whereby policy-making is firmly and directly in the hands of the citizenry (Morris, 2000). At the other end, pessimists expect only nominal impact on existing power structures as political institutions will eventually normalize and neutralize technology within existing structures and practices (Margolis & Resnick, 2000).

While such speculation is interesting and worthwhile, the truth is that the full implementation of social media into the institutions of governance faces a number of remaining obstacles that are both technical (for instance, how can policy makers make sense of large volumes of citizen input?) and institutional (for instance, how can and should e-consultation and citizen sourcing fit within the traditional processes, theories and systems of governance?). Indeed, while one may reasonably conclude that the advent of the Information Age has rendered citizen coproduction and online citizen participation more viable, it is also clear that a wide range of issues and challenges remain.

Wisdom of the Crowd versus Mob Rule

Thompson notes that the 'Internet is a great tool for harnessing the wisdom of crowds – and also the idiocy of trolls' (2009), while Albrecht's review of the literature finds that more than a third of the discussion threads on political newsgroups resulted in 'flame fests' (2006). Indeed, while social media and online connectivity may today afford the necessary scalability for direct democracy, they do not counter Weber's other concern that the average citizen does not 'possess the expertise, resources, discipline, and time to make public-policy decisions' (quoted in Noveck, 2008, p. 32). As Edmund Burke argues, direct democracy has a tendency to have 'determination precede the discussion' (quoted in Coleman & Gøtze, 2001). Very much in line with this argument, citizens seem to want to 'have their say' more than they want to actually 'be involved' in the decision-making process (Hansard Society, 2009). Another concern is the Internet's tendency to promote group polarization, as the Web's wide choice of information providers and communities enables netizens to 'congregate around shared interests' (what is widely called 'narrowcasting') and limit the scope for genuine democratic deliberation (Miller, 2008, p. 164) by 'reinforcing rather than exchanging' views (Wright & Street, 2007, p. 852) and fostering social fragmentation (Jaeger, 2005; Sunstein, 2009).

Counterproductive Influence on Politicians

Another risk of 24/7 online citizen participation is that it may well drive citizens to 'expect politicians to become creatures of their will' (Coleman & Gøtze, 2001, p. 8). While this may seem perfectly democratic, it ignores the dangers of devolving 'representation into infotainment' (Hilbert, 2009, p. 92). As Hilbert states, 'in a society where people are increasingly accustomed to communicating directly with show masters and to choosing the next music video by mobile short message service in real time, political leaders are very unlikely to escape the digitized verdict of the people' (2009, p. 91). Faced with immediate and intense feedback on their every action, politicians will be incentivized to mirror the public mood as much as possible. As a result, 'future representatives of the people might find themselves forced to play a role similar to that of TV-reality-show candidates, responding in real time to the cavils or praise of the public' (Hilbert, 2009, p. 91).

Tricky Reconciliation of Equity, Representativeness and Inclusion

Online participation and e-consultation also suffer the dilemma of needing to reconcile 'norms of equality and representation with the reality of unequal participation' (Shafie, 2008, p. 408). Indeed, online participation naturally suffers from self-selection bias, favoring the more 'confident, articulate, engaged, and motivated' (Coleman & Gøtze, 2001, p. 15) and those with the most time and attention (Albrecht, 2006). The digital divide is also a concern: Internet access remains unequally distributed following predictable trends of income, education, gender, age and race. Studies have also shown that women have a tendency to monitor but not contribute to discussion boards, due to the often male-dominated, antagonistic discussions (Hurrell, 2006). Online participation can also be hijacked by organized interests. As Shafie argues, 'the reduced cost of submitting input could be exploited by the same well-financed organized interests that traditionally have dominated political communication' (2008, p. 401). Of course, representativeness is not essential for problem solving and identifying the best ideas – what matters in these cases is quality rather than quantity – but a lack of representativeness heavily constrains democratic legitimacy. But the greatest obstacle to successful online participation may be citizen apathy. Steve Carver concludes that scholars tend to credit the public with more 'enthusiasm for participation in decision making than we perhaps ought' (2003, p. 61).

Risk of Tokenism

Lastly, with the 'crisis of representative democracy' eroding their authority and credibility, politicians have obvious incentives to show the electorate that the people are being 'listened to' and offered the opportunity to influence government decision-making. The risk is that policy makers will adopt e-consultation and citizen sourcing initiatives for cosmetic purposes alone. Coleman and Gøtze argue that politicians and bureaucrats have only 'tokenistically' adopted e-participation initiatives while retaining 'existing structures of policy formation, so that the public's input is "worked around" by powerfully entrenched institutions' (2001, p. 12). For instance, the lack of a formal, institutionalized way of handling e-petitions in the United Kingdom and the total absence of demonstrated

influence on political decisions rendered that system 'nothing more than a "gimmick"' (Wheeler, 2007). Similarly, skeptics argue that e-governance exercises in non-democratic governments seek primarily to 'pre-empt' liberalization, boosting the government's legitimacy while alleviating pressure from below (Kalathil & Boas, 2003). These findings, while not comprehensive, fall very much in line with Jaeger's observation that 'parties in power tend to use e-government as a method to reinforce or increase their power' (2005, p. 708). Grönlund & Åström (2009) similarly conclude that the existing literature provides little if any systematic evidence that e-consultations exerted a discernable impact on policy, let alone enhanced democracy.

Nevertheless, for instances where coproduction and online citizen participation have been successful, research demonstrates that the benefits go beyond improving the effectiveness of government. Coproduction efforts, for example, have been shown to foster social capital and strengthen civil society; produce positive spillovers by fostering local activism in other areas; promote innovation; and better differentiate services in response to heterogeneous preferences in the community (Ostrom, 1996; Torres, 2007; Goldsmith & Kettl, 2009). Similarly, Warren et al. find that the use of social media for civic engagement has a 'significant positive impact on trust propensity – and that this trust had led to an increase in trust towards institutions' (2014, p. 291). Yet, as Ostrom cautions, 'designing institutional arrangements that help induce successful co-productive strategies is far more daunting than demonstrating their theoretical existence' (1996, p. 1080).

CONCLUSION

This chapter makes a pragmatic and optimistic case that social media and the global communication network have newly empowered citizens to play a far more active and productive role in policy formulation, both individually and collectively. The adoption of social media and online citizen engagement by governments demonstrates that citizens have far more to offer than a yearly trip to the voting booth; rather, governments can and should consult the people for actionable intelligence, innovative ideas and public expertise on a regular basis (Noveck, 2008). Success in these endeavors requires government to trade control for effectiveness – leading some to call for a new kind of social contract (Long, 2002; Linders, 2012). Indeed, the traditional, top-down bureaucracy of insulated public administrators depicted by Weber has long been rendered obsolete in practice (if not always theory). In particular, the institutional adoption of government-to-citizen interactivity opens up a powerful new problem-solving mechanism by equipping government with the means to, in the words of America's first Chief Technology Officer, 'tap into the ingenuity of the American people' (Kundra, 2010).

However, the crisis of representative democracy and the perceived disconnect between the elected and the electorate cannot be solved by shiny websites and Tweets alone. Full success will require a level of participation, representativeness, sophistication and institutionalization that today's systems of governance and technology simply cannot yet provide. Certainly, many policy problems do not have one-size-fits-all solutions, and social media-facilitated public involvement in policy formation may only work in selected conditions and situations. Unfortunately, the lack of scholarly research in this space means that we have little insight on these factors or on the potential for sustained impact,

as most uses of social media remain too immature to support conclusive evaluations. More research is also needed to examine the enabling and hindering conditions for social media-facilitated public involvement in policy formation, including in terms of government openness to public engagement, disposition of ordinary citizens, and appropriate platforms for connecting the government and the public. All of these are pivotal to the success of social media-facilitated public involvement in policy formulation.

It may be best, therefore, to proceed humbly with the understanding that, in the words of Al Gore, 'this Internet revolution is still in its infancy, and its effects won't all be positive, of course. The fact is, we're all still trying to figure it out' (quoted in Vargas, 2008).

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32. Policy overreaction doctrine: from ideal-type to context-sensitive solution in times of crisis
Moshe Maor

INTRODUCTION

Among policy scholars there is an impression that policy overreaction or overinvestment are policy mistakes. For example, US presidents' foreign policy mistakes have been described as 'too much' policy – which occurs following a mistake of commission in the diagnosis stage of decision-making – and as implemented 'too soon' – which is the result of a mistake of omission in the prescription stage of decision-making (Walker & Malici, 2011). Further, the study of policy overreaction is considered by many policy scholars as an academic minefield because this phenomenon is time-bound, context-sensitive and has a problematic counterfactual, namely, proportionate policy response. It is therefore no surprise that policy scholars have largely ignored the study of policy overreaction. Still, at times, policymakers deliberately overreact, for example, in order to swiftly and decisively end a crisis involving panic and popular fear and restore confidence. They use the state's power in a given policy area and a large amount of 'statecraft' resources (Hood, 1986) to cognitively and emotionally *overwhelm* the relevant target populations in pursuit of their policy goals. What should policy actors do and which policy template should they conform to if they wish to overreact in order to decisively and swiftly restore public confidence in a matter of days or a few weeks? Is there a set course of policy overreaction that actors may adhere to rather than 'bet' or improvise?

Based on the tradition that views policy design as policy content or substance (Schneider & Ingram, 1997; see also Dahl & Lindblom, 1953; Stone, 2002) and on ideal-type methodology, this chapter dissects a policy overreaction doctrine by elaborating on six properties that are compatible with each other but unlikely to be equally present in all cases. The focus of this chapter is therefore on positive, rather than normative, policy design – a specific type of policy formulation based on the collection of information concerning the effects of policy tool use on target populations and its application to policy development and implementation in order to attain desired policy goals (Bobrow & Dryzek, 1987; Bobrow, 2006; Weaver, 2010). The chapter revolves therefore around the design of policy doctrines which, if implemented, are deliberately intended to deliver an overwhelming policy overreaction response, that is, one that imposes social costs without producing offsetting benefits (Maor, 2012). The arguments advanced are that policy overreaction could be designed in the meaningful sense of this term, and that a policy overreaction doctrine that comes close to the ideal type may produce the desired disproportionate effect, even without the need for its implementation. To bolster a doctrine's overall credibility, policymakers may design a favorable information environment, resolve governance issues (for example, limited authority and the balkanization of authority), and review the preferred balance between non-selective and selective use of

overwhelming government force. Naysayers to policy overreaction may be dealt with by incorporating ethical principles into such doctrines.

The chapter is organized as follows. The first section discusses related literature and introduces the definitions of the terms discussed here. The second section elaborates on the six dimensions of the ideal-type of policy overreaction doctrine. The third section discusses major elements in the process by which the overall credibility of a policy overreaction doctrine may be established, and the fourth section elaborates on the possible opposition to such a doctrine by moral fundamentalists and discusses potential strategies to pacify or neutralize such criticism. The chapter concludes by providing directions for future research.

RELATED LITERATURE

Policy process theories, such as system theory, public choice theory, advocacy coalition theory and multiple-streams theory, do not examine the details of policy content or analyse policy characteristics (Schneider & Sidney, 2009). Two approaches, however, touch on some aspects of proportionality in public policy. Incrementalism fosters proportionality in public policy if policy problems change gradually (for example, Lindblom, 1959); the punctuated equilibrium theory challenges this approach by suggesting that policy responses oscillate between periods of underreaction to the flow of information coming from the environment into the system, and overreaction due to disproportionate information processing (Jones & Baumgartner, 2005). This oscillation may be derived from a vivid event that symbolizes everything that is wrong (Birkland, 1997) or from an accumulation of problems over a longer period (Jones & Baumgartner, 2012). However, the policy agenda literature provides little nuance regarding what the government is actually doing and how it affects the public (Dowding et al., 2016). In addition, it does not emphasize the characteristics of the policy itself but rather the ways in which social problems are put on the agenda and are translated into public and then political issues (Schneider & Sidney, 2009, p. 113). Amongst scholars in policy studies, policy design researchers have recognized the importance of the content of policy since the late 1950s (Dahl & Lindblom, 1953), and have developed a set of categories for specifically describing policy content (Schneider & Ingram, 1997). However, they have not paid much attention to what the characteristics of disproportionate policy options and actions are. Disproportionate policy response is understood to be 'a lack of "fit" or balance between the costs of a public policy and the benefits that are derived from this policy, and/or between a policy's ends and means' (Maor, 2016a, p. 3).

In an attempt to infuse the concept of policy overreaction with a robust conceptual identity – that is, one that goes beyond the analytical reach of the terms 'too much' and 'too soon' (Walker & Malici, 2011) – two concepts have recently been developed, namely, policy overreaction and policy overinvestment. Policy overreactions 'are policies that impose objective and/or perceived social costs without producing offsetting objective and/or perceived benefits' (Maor, 2012, p. 235). Policy overinvestments occur 'when government overinvests in a single policy instrument beyond its instrumental value in achieving a policy goal' (Jones et al., 2014, p. 149). Whereas the former definition appeals to considerations of national interest, broadly defined, the latter, although easily measurable

and tractable, often appeals to considerations of economic efficiency. In addition to the concepts that have been developed, accounts of disproportionality in public policy link the dynamics of overreaction to evaluations of risk and overconfidence by policymakers (Maor, 2012; see also Maor, 2014a). Further studies capture the notion of sustained overreaction or overinvestment in a policy tool relative to its contribution to the attainment of policy goals and offer the concept of policy bubbles (Jones et al., 2014; Maor, 2014b, 2016b, 2016c). Recently, the role of emotional entrepreneurs has been explored in policy valuation processes, through which public policies are becoming valued, overvalued and undervalued (Maor & Gross, 2015), and so has been the role of moral entrepreneurs, meaning entrepreneurs, standards and performance metrics entrepreneurs, and reputational entrepreneurs in such processes (Maor, 2015). In addition, the disproportionate policy perspective has been articulated and then used to challenge some of the tenets of the new policy design orientation (Maor, 2016a).

In a recent advance, Maor (2017) has distinguished between two types of policy overreaction options, namely, doctrine and rhetoric. Policy overreaction doctrine refers to 'a coherent set of policy principles which presents an "all or nothing" policy commitment in pursuit of a policy goal no matter what the costs are' (p. 5). According to Maor, '[a]t the heart of a policy overreaction doctrine lie principles for the use of overwhelming government force in order to achieve a decisive and quick policy outcome in a particular policy domain' (2017, p. 5). 'Overwhelming force' is understood to be 'a credibly large amount of committed resources available to use with discretion during a . . . crisis' (Gorton, 2015, p. 976). These resources can be money, time, political and moral capital, as well as 'statecraft' or implementation tools – namely, authority, treasure, organization and information (Hood, 1986; Howlett, 2011, p. 53). 'Decisive' means a definite outcome that leaves no room for interpretation, while 'quick' suggests that the desired policy outcomes can be achieved in a matter of days or weeks, rather than months or years. According to Maor (2017), '[a] policy overreaction doctrine rejects a gradualist approach to the use of government power, and instead seeks to implement, or to communicate to target populations, an all-or-nothing policy approach that leaves no room for compromise and therefore ties the hands of policymakers and raises the political costs of any use of government force' (p. 11). Policy overreaction rhetoric, a sub-set of policy overreaction doctrine, refers to 'arguments that policymakers employ to reach and persuade the target populations of their "all or nothing" policy commitment to achieve their policy goal, no matter what the costs are' (Maor, 2017, p. 6).

Policy overreaction doctrines are often designed in the run-up to a potential crisis or during a crisis itself. Crises are treated here 'as extended periods of high threat, high uncertainty, and high politics that [significantly] disrupt a wide range of social, political, and organizational processes' (Boin & 't Hart, 2003, p. 545). In such times, the balance between order and other values (for example, freedom) shifts to a considerable degree in favor of the government's ability to deal with the threats to the national well-being (Gross, 2011) and to 'bring things back to normal' (Boin & 't Hart, 2003, p. 545). Furthermore, traditional systems of checks and balances may be broken down, and the political right and left may be inclined to mobilize behind their governments in support of a drastic action (Gross, 2011).

The usefulness of the term 'policy overreaction doctrine' lies in its convenience as a shorthand for the set of broadly similar policy options that often dominate the crisis

management agenda in various policy domains in many countries (Maor, 2017). But what are the essential features of such a doctrine? How can one identify such a doctrine? To answer these questions, this chapter now seeks to dissect the key features of a policy overreaction doctrine that is often designed as an off-the-shelf option to be used in times of crisis.

A POLICY OVERREACTION DOCTRINE: AN IDEAL-TYPE

According to Howlett (2014), 'policy designs can be thought of as "ideal types," that is, as ideal configurations of sets of policy elements which can reasonably be expected, if adapted to meet the parameters of a specific contextual setting, to deliver a specific outcome' (p. 193). I therefore use the 'ideal-type' construct as a methodology suited for making comparisons between the type and empirical reality. The ideal-type of policy overreaction doctrine may contain an indefinite number of particular policy overreaction doctrines. The idea is to make clearly explicit only the broad, yet necessary (that is, unique) characteristics of this ideal typical policy option. The ideality of a typical policy overreaction doctrine lies therefore in its simplicity and lack of detail. By comparing an actual policy overreaction doctrine with an ideal typical one, the deviations of the former from the latter become clearly evident and easily visible. Further, the deviations can be used for measurement purposes.

A smaller set of critical dimensions underlies the complexity of policy overreaction doctrines. These dimensions include the motivation for the intended policy overreaction; the general principles that drive the intended policy response; the content of the policy option insofar as the intended use of overwhelming government force is concerned; the amount of committed resources required to cognitively and emotionally overwhelm relevant target groups; the self-imposed constraints incorporated in the doctrine as well as the mechanisms that intend to bolster the public visibility of these constraints; and the means to boost public visibility of the use of overwhelming government force. Table 32.1 summarizes the meaning and typical justification of each of these dimensions. An actual policy overreaction doctrine would be likely to have some elements of most of these features. These elements are compatible with each other because they have a single rationale: to achieve a quick and decisive outcome before public support and confidence in the government's ability to resolve the policy problem fade away.

The first element is an all-or-nothing motivation expressed via rhetorical means, that is, through policy overreaction rhetoric. This element is expressed through a clear-cut statement that, according to Maor (2017, p. 6), 'may include reference to policymakers' intention to use overwhelming government force; to respond forcefully, aggressively or excessively to a potential or a given policy problem; to use all the means at their disposal in order to achieve a policy goal, and to avoid restraint (e.g., break loose).' The credibility of these statements lies in the consistency that exists between all-or-nothing motivation and the other elements in the doctrine. For example, a rhetorical position is more credible when it is accompanied by a large amount of committed resources available to use with discretion during a crisis and with symbolic rather than substantial constraints on the implementation of the doctrine. The more credible the statement is, the greater the odds that it will be taken seriously by the target populations, thereby reducing the need for

Table 32.1   Components of a policy overreaction doctrine

No.	Component	Meaning	Typical justification
1.	All-or-nothing motivation, expressed via rhetorical means	No room for compromise	Need to achieve quick and decisive outcome before public support fades away
2.	Emphasis on principles rather than on a detailed operative plan	Flexibility for policymakers and for operators on the ground	Need to swiftly calibrate the policy tool according to the gravity of the crisis
3.	Intended use of overwhelming government force	Decision is based on assessment of the gravity of the crisis	The enormity of the crisis requires the use of overwhelming force
4.	Commitment of a credibly large amount of resources	Money, time, policy-specific resources (e.g., military), political and moral capital, and others	Amount of resources is required to cognitively and emotionally overwhelm relevant target groups
5.	Stress on self-imposed constraints; their incorporation in strategy and tactics, and on their public visibility	The establishment of legal, ethical, moral or other constraints without limiting the scope of government action	Efforts to minimize collateral damage and to increase internal and external legitimacy
6.	Public visibility of the use of government force	The use of highly visual and dramatic information; a spectacle	Imposing policymakers' frames upon the public understanding of the crisis

actual government overreaction. In other words, the higher the credibility of the doctrine is, the more likely that it will be able to achieve its desired ends without being implemented on the ground. An example of an all-or-nothing motivation was the following statement made in July 2012 by Mario Draghi, the head of the European Central Bank (ECB), regarding the fragility of the euro: 'Within our mandate, the ECB is ready to do whatever it takes to preserve the Euro. And believe me, it will be enough.'[1] The meaning of such a statement is that there is no room for questioning the government's resolve to solve the policy problem. More examples will follow later in this section.

The second element is the emphasis on the general principles undergirding a policy overreaction doctrine rather than the formulation of a detailed operative plan. Such a doctrine is pitched at a strategic level, and lays the foundation for more detailed operational and tactical plans. It therefore communicates to the target groups an easily understandable snapshot of policymakers' likely mindset under conditions of unfolding events, which intensify the gravity of the policy problem at hand. In addition, the focus on general principles provides policymakers some flexibility on the operative plan. Once policymakers have made it clear that they are willing to do whatever is needed to resolve the crisis and restore public confidence, they can then calibrate the policy tool selected according to their perception of the gravity of the crisis.

A classic example in the financial domain is Bagehot's (1873) doctrine which is 'encapsulated in a set of principles for successful lending of last resort operations' (Bignon et al., 2009, p. 2). The rule states that, to end a financial crisis, the central bank should

lend freely (principle 1), at a high rate (principle 2), and on good collateral (principle 3). Ben Bernanke, US Federal Reserve Chairman during the 2007–08 financial crisis, put it this way: '[Bagehot] had a dictum that during a panic central banks should lend freely to whoever comes to their door; as long as they have collateral, give them money' (Bernanke, 2013, p. 7).

Ben Bernanke reported that during the 2007–08 subprime crisis, the Federal Reserve followed Bagehot's doctrine (Bernanke, 2014a, 2014b). A 10 August 2007 press release by the Federal Reserve stated that the Fed would provide reserves as necessary due to the 'unusual funding needs because of dislocations in money and credit markets.'[2] In implementing the doctrine, Bernanke added a secrecy component. As noted by Bernanke (2009), 'Releasing the names of [the borrowing] institutions in real-time, in the midst of the financial crisis, would have seriously undermined the effectiveness of the emergency lending and the confidence of investors and borrowers' (p. 1). The idea was to instil confidence by hiding the identity of the borrowers through the use of auctions, a competitive format that does not suffer the stigma attached to weak banks and other financial institutions when they use the conventional method of 'money in the window' (Gorton, 2015; Gorton & Ordonez, 2014). Consequently, all the lending programs created during the financial crisis, namely, the Term Auction Facility, the Term Securities Lending Facility, the Primary Dealers Credit Facility and others, were designed to use auctions to make loans in secret (Gorton, 2015). The source of the funding necessary to follow Bagehot's rule originated within a month of Lehman's bankruptcy, when Congress passed the Troubled Asset Relief Program (TARP). In the framework of TARP, $700 billion was allocated by Congress to address the banking crisis; the bill passed on 3 October 2008. However, only $125 billion was actually injected as a first step into the nine largest financial institutions in the US banking system (Gorton, 2015). Once the banking sector and the economy had stabilized, calibration of the disproportionate policy response took place. Ultimately, the Dodd–Frank Wall Street Reform and Consumer Protection Act reduced the amount available to address the crisis to $475 billion of the original $700 billion.

The third element of a policy overreaction doctrine is the intended use of disproportional or overwhelming government force to respond to a crisis involving panic and popular fears. At the outset of a crisis, events are not clear; they may be chaotic and fast moving (Gorton, 2015). Policymakers may not know initially what is actually happening or how to respond. Still, they may find themselves forced to respond – at first in reaction to events as they unfold, and then in a more structured way. If an off-the-shelf policy overreaction doctrine is available to shape government response to a particular policy problem, the immediate government reaction, following an assessment of the gravity of the situation, may be more likely to include the use of disproportional or overwhelming government force.

A classic example is the Dahiyah doctrine, named after the southern residential suburb of Beirut known as the Dahiyah, that was home to Hezbollah leadership as well as to Shiite supporters of this terror organization, and was flattened by Israel in sustained air raids during a 34-day war with the Shiite group in 2006. The flattening of the Dahiyah has been seen as a relevant model for policymakers to consider following the perceived failure of the Israel Defense Forces (IDF) during the Second Lebanon War to bring an end to the launch of rockets against Israeli civilian areas by Hezbollah and Hamas despite the military weight of the Israeli army. The derived doctrine refers to a military

strategy that focuses on using disproportionate air power and artillery against a non-state terrorist and guerilla organizations. The targets against which the IDF should focus disproportionate force may vary between villages from which rockets are fired (Eisenkot, quoted in Nahmias, 2008), the political, social or religious strongholds of the Resistance Network (Siboni, 2008), or the civilian infrastructure of the political entity within which the Resistance Network operates (Eiland, 2008; Siboni, 2008). The idea is therefore not to hunt down individual missile launchers, but to punitively destroy the entire area from which rockets are fired. It is hoped that the destruction, or the threat thereof, will convince the local population to stop cooperating with the Resistance Network. Gadi Eisenkot, then head of the IDF's Northern Command, threatened Hamas (in Gaza) and Hezbollah (in Lebanon) by stating that '[w]hat happened in the Dahiyah quarter of Beirut in 2006 will happen in every village from which Israel is fired on . . . We will apply disproportionate force on it and cause great damage and destruction there. From our standpoint, these are not civilian villages, they are military bases' (Eisenkot, quoted in Nahmias, 2008). 'This is not a recommendation,' Eisenkot argued in another interview, '[t]his is the plan and it has been approved' (Eisenkot, quoted in Fishman & Ringel-Hoffman, 2008). This rhetorical stance was confirmed by the then-Prime Minister Ehud Olmert, who was quoted in the *New York Times*: 'The government's position was from the outset that if there is shooting at the residents of the south, there will be a harsh Israeli response that will be disproportionate.'[3] This doctrine was implemented in Operation Cast Lead in Gaza (December 2008 to January 2009), in which the total number of Palestinian non-combatants who died ranges from 295 (IDF figures, quoted in Lappin, 2009) to 926 (according to the Palestinian Center for Human Rights, quoted in Haaretz[4]).

The fourth element is the stress on a credibly large amount of resources – that is, backing financial policies with a sufficiently large amount of money, or backing a military operation with maximum available force. The amount of resources committed determines policymakers' ability to cognitively and emotionally overwhelm the target groups and to manage the expectations of the relevant target populations as well as the general public. The commitment must be perceived as credible, meaning that the government will follow through (Gorton, 2015). It also has to be perceived as sufficient to restore public confidence in policymakers' resolve to solve the policy problem.

Take, for example, Operation Desert Storm, which occurred following Iraq's invasion of Kuwait under the leadership of President Saddam Hussein. Operation Desert Storm was the largest deployment of US forces since Vietnam, with nearly 470,000 active duty US troops and nearly 217,000 reserves called to active duty (Kozaryn, 2001). More than 500,000 American troops were placed in Saudi Arabia in case of an Iraqi attack on the Saudis, and 180,000 US soldiers were on the battlefield (Brooks, 2004). On 24 February 1991, after a devastating 39-day air campaign, the ground war began. Just 100 hours after the attack was initiated, American ground troops declared that Kuwait had been liberated. No Iraqi attack on the Saudis was recorded. According to Powell, '[t]he Gulf War was . . . a limited-means war – we did not use every means at our disposal to eject the Iraqi Army from Kuwait. But we did use overwhelming force quickly and decisively' (Powell, 1992, p. 37).

The fifth element is the introduction of self-imposed constraints, their incorporation in strategy and tactics, and the creation of mechanisms that bolster the public visibility of

these constraints. The idea is to minimize collateral damage which may derive from the use of overwhelming government force and to increase internal and external legitimacy. In the military domain, for example, one type of constraint includes moral principles, such as the principle of just war and the derived principle of just cause (for example, self-defense). These constraints are indicative of the fact that obtaining and using overwhelming government force is complicated by politics.

Because the use of overwhelming government force is likely to result in disproportionate economic, political, moral and other costs, it is important to build internal and external legitimacy. This may be done by demonstrating that conventional strategies have been exhausted. 'Conventional' alternatives may include strategies performed by the government in question or by other governments encountering a similar policy problem in terms of gravity, scope and root causes. The government may need to convince those who are about to bear the costs that things may get a lot worse if conventional strategies are sustained. Building internal and external legitimacy may also be done by enhancing the public visibility of the aforementioned constraints. Before decisions, commands and proposed actions are implemented, an official review and public debate may be undertaken in order to determine whether actions appropriately manifest the moral and ethical principles of the state and comply with national and/or international law.

An example of self-imposed constraints, in the form of the principle of last resort, can be found in the Weinberger-Powell doctrine (Weinberger, 1990; Powell, 1992), named for Caspar Weinberger (Ronald Reagan's Secretary of Defense) and Colin Powell (Chairman of the Joint Chiefs of Staff during Operation Desert Storm, and later George W. Bush's first Secretary of State). This doctrine revolves around the principle that 'military force, when used, should be overwhelming and disproportionate to the force used by the enemy' (Jones et al., 2005, p. 20) so that military conflicts will end quickly and with minimal loss of life. Specifically, the main tenets of this doctrine are that 'military action is the last resort, to be used only when national interests are clearly at stake; force, if used, must be overwhelming; strong support from Congress and the Public is necessary, and a clear exit strategy is essential' (Fitzgerald, 2013, p. 90). This doctrine was implemented in Operation Desert Storm, discussed earlier in this section.

The sixth element is the means that are intended to boost the public visibility of the use of disproportionate force. Policymakers may wish to regain control in the contest between frames and counterframes in order to 'impose their frames upon the public understanding of the crisis and its wider implications' (Boin et al., 2008, p. 287). This aim may be achieved by social constructions (for example, Schneider & Ingram, 1993, 1997), as well as by incorporating components other than language into the doctrine, for example, highly visual and dramatic information that is easily remembered (Ferreira et al., 2001). The belief held by policymakers employing this mode of action is that confidence in government can be restored through more intensive, credible and convincing communication that revolves around facts, evidence and past experience of policymakers (Siegrist et al., 2007, p. 283). A relevant example is the US military doctrine of massive nuclear retaliation which emerged in spring 1953 following growing unease with rapidly rising government spending. The administration's statement of Basic National Security Policy concluded that 'the risk of Soviet aggression will be minimized by maintaining a strong security posture, with emphasis on adequate offensive retaliatory strength and defensive strength' based on 'massive atomic capability' as well as conventional readiness (NSC 161/2, quoted

in Rosenberg, 1978, p. 267). The emergence of this military doctrine has consisted of two parts: 'integrating tactical nuclear weapons more fully into military planning at the operational level, and waging a concerted public relations effort to make use of nuclear weapons politically acceptable' (Tannenwald, 2007, p. 167). During 1953–60, the public was informed that the president retains the decision to use nuclear weapons, and this assurance, in turn, has facilitated the strategic integration of nuclear weapons into the US military doctrine 'with the explicit goal . . . of treating them as conventional and as available for use as other munitions' (Tannenwald, 2007, p. 167). This example demonstrates the effort undertaken by policymakers to persuade the target population that they have the capacity and will to swiftly and decisively resolve the aforementioned policy problem, and that their words can be trusted. At a more general level, it is reasonable to expect that if policymakers succeed in doing so, it is highly likely that the doctrine will never be implemented. If they do not succeed, the doctrine is likely to become the basis for the implementation of policy overreaction.

Given that a policy overreaction doctrine is a commitment by policymakers to overreact under certain conditions, the overall credibility of the policy commitment and of the policymakers who designed it is of utmost importance. This point requires some elaboration.

THE OVERALL CREDIBILITY OF A POLICY OVERREACTION DOCTRINE

A policy overreaction doctrine acts as a signaling device. It is designed in part to reduce information asymmetry between policymakers and target populations as well as to send messages to target groups and the general public about who is deserving of what, and why (Schneider & Ingram, 1993, 1997). During the policy design process – when policy content is produced (for example, Linder & Peters, 1988) – policymakers signal their unobservable mindset to target groups via the observable quality of their doctrines as well as via other elements which are discussed here. Depending on the credibility of policymakers and the policy overreaction doctrines they designed, such policy options may provide a means of predicting future behavior.

In the process of establishing the credibility of a policy overreaction doctrine, policymakers may pursue a threefold strategy: (1) designing a favorable information environment; (2) resolving structural issues of limited authority and the balkanization of authority; and (3) reviewing the preferred balance between non-selective and selective use of overwhelming government force. With regards to the information environment, in the run-up to a potential crisis as well as during a crisis itself, information is suppressed (Gorton, 2015, p. 981). Consequently, policymakers may work to shape an information environment that is conducive for the implementation of a policy overreaction doctrine. Some may wish to manage expectations of relevant target populations in the context of an information environment which directs attention at systemic factors, because institution-specific information may undermine the said doctrine; others may prefer managing expectations when attention is directed at institution-specific information, because information regarding systemic factors undermines the doctrine; and some may prefer to manage expectations by diverting attention away from the doctrine and toward an unrelated issue. Further, a policy overreaction doctrine itself may contain incentives for policy actors to

produce information regarding systemic, institutional or other factors desired by the government or to avoid the production of certain information that undermines the doctrine.

Relatedly, policymakers may use emotional appeals to manipulate the information environment and facilitate consensus around a policy overreaction doctrine. By opting for emotion regulation (Maor & Gross, 2015), they may rely on evidence that voters behave differently in different emotional states (for example, Marcus, 2000), that fear-arousing rhetoric may be selectively deployed to support political purposes (De Castella et al., 2009; De Castella & McGarty, 2011), and that politicians can more easily use fear for their purposes when a citizenry's psychological profile makes it less motivated or able to adapt to fear appeals (Lupia & Menning, 2009).

Regarding opportunities for structural changes, a policy overreaction doctrine may force policymakers and legislators to resolve issues of limited authority in the run-up to a potential crisis. In order to increase the effectiveness of the policy response, a policy overreaction doctrine can be used by policymakers to make significant changes in the way that decisions are made and government operates in the relevant sector. Policymakers may use this opportunity to concentrate authority, thus facilitating the swift use of a policy overreaction response when the need arises. By the same token, a policy overreaction doctrine may force policymakers to resolve issues related to the balkanization of their authority in the relevant policy sector which occur when different tools are in the hands of different officials with different strategies and different perceived responsibilities (Geithner, 2014, p. 224).

Regarding the balance between policy overreaction strategies, the credibility of a policy overreaction doctrine may be bolstered if, during the design of such a doctrine, a process of strategic review is undertaken which considers the preferred balance between non-selective and selective use of overwhelming government force. In a non-selective mode of policy overreaction, the government provides resources for all individuals and institutions in need who come forward and seek assistance. In a systemic banking crisis, for example, the government may lend freely – that is, provide money 'in the window' for banks in distress and for other weak financial institutions. In a catastrophic natural crisis, the government may provide food, housing and medical aid for individuals in distress. In the non-selective mode, therefore, government operates as a non-selective actor, awaiting individuals and institutions in need to approach it for assistance.

A selective mode of policy overreaction, in contrast, includes the design of mechanisms which separate those individuals or institutions in dire need from those who are not, thereby allowing policymakers to be selective in the use of overwhelming government power. An example is the idea of an individual or institutional stress test undertaken during a crisis or immediately after. Whether or not this response is considered proportionate or an overreaction depends on the margin of safety for the threshold separating the fundamentally healthy institutions or individuals from the terminally ill or weak. It is reasonable to assume that during a crisis involving popular fears and panic, the government will deliberately select a threshold with a large margin of safety so that all those in need, and border cases, will be assisted. To increase the perceived credibility of this move, the government will be disinclined to publicize the threshold or any other information regarding it. A case in point is the bank stress tests that aimed at assessing the resilience of financial institutions to a hypothetically adverse market scenario. These stress tests were innovatively designed and introduced by the Fed during the 2007–08 financial crisis.

Although the results of these stress tests were made public, the process employed by the Fed in order to achieve the results was not (Gorton, 2015).

To summarize, one of the main challenges facing policymakers designing a policy overreaction doctrine is the establishment of its credibility. The information environment in the policy sector, the way that decisions are made and government operates in the relevant sector, and the trade-off between non-selective and selective approaches to the use of overwhelming government force constitute significant dimensions that require policymakers' attention if they wish their policy overreaction doctrines to be seen as credible.

DEALING WITH NAYSAYERS TO POLICY OVERREACTION DOCTRINES

Central to every discussion regarding the design of policy overreaction doctrines is the concept of morality. This is because policy overreaction doctrines involve the aggressive use of policy instruments and are therefore likely to be challenged on moral grounds. In the military arena, for example, the contemplation of the use of overwhelming force (for example, government-initiated assassinations, preventive killing, or the use of disproportionate air power and artillery on populated areas from which rockets are fired by terrorist and guerrilla organizations) may be easily portrayed as an assault on civilians and a violation of international humanitarian law. In the financial arena, charges may revolve around the belief that a policy overreaction leads to so-called moral hazard – for example, in a financial crisis, that government bailouts will lead banks to take even bigger risks because they expect the government to rescue them.

According to Timothy Geithner (2014), who served as president of the Federal Reserve Bank of New York (and vice chairman of the Federal Open Market Committee of the Federal Reserve System) and then as US Treasury Secretary, during the crisis of 2007–08, '[t]he moral hazard risk [with bailing out Bear Stearns] was real' (p. 151); '[I knew] I would later be criticized as a walking source of moral hazard' (p. 145); 'I found the more hawkish obsessions with moral hazard and inflation during a credit crunch bizarre and frustrating' (p. 131). And after the collapse of Lehman Brothers: 'I had heard enough moral hazard fundamentalism' (p. 217). In fact, the term 'moral hazard fundamentalists' originated earlier on in the crisis. In an op-ed in the *Financial Times* (23 September 2007), economist Larry Summers points out that moral hazard, which originated in insurance, is invoked in the financial arena 'to oppose policies that reduce the losses of financial institutions that have made bad decisions. In particular, it is used to caution against creating an expectation that there will be future "bailouts".' At the heart of the op-ed is Summers's claim that so-called moral hazard fundamentalists 'fail to recognise the special features of public actions to maintain confidence in the financial sector' and that 'moral hazard is not always a negative with respect to policy responses to financial stress.'

Although moral-based arguments form the basis for criticism of a wide range of policy overreaction doctrines (and actions), such doctrines may be imperfect for many reasons besides moral ones. Assuming that moral or moral hazard issues are not the cause of the crisis at hand, it is reasonable to argue, as Gorton (2015) does, that a crisis is not the time to deal with moral challenges. Instead, such challenges may be addressed, and attempts made to change the culture that gives rise to such challenges, during the

policy design process. One way to minimize moral hazard is to incorporate ethical principles into the policy. An example of this is the design of principles of military ethics for fighting terror, formulated at the IDF National Defense College. Kasher and Yadlin (2005) have proposed 11 principles: two on the level of the state, including the Principle of Self-Defense Duty; six related to military preventive acts against activities of terror, including new formulations of a Principle of Military Necessity, a Principle of Distinction and a Principle of Military Proportionality; and three related to consciousness-directed activities, namely, a Principle of Permanent Notice, a Principle of Compensation and a Principle of Operational Deterrence. These ethical principles governed the IDF's conduct during Operation Cast Lead in Gaza (Harel, 2009).

These ethical attributes notwithstanding, there are also reasons why constraints on the use of overwhelming government force might actually weaken a government's ability to use such force. This, in turn, may undermine the credibility of the policy overreaction doctrine, forcing a government to implement it rather than enjoying the advantages of a credible doctrine that bears fruit with no implementation required on the ground.

CONCLUSIONS

In this chapter, I have tried to illuminate the ideal typical features of a policy overreaction doctrine. Based on the tradition that views policy design as policy content, I have identified six essential features of a policy overreaction doctrine: an all-or-nothing motivation; an emphasis on principles; a commitment to use overwhelming force; the commitment of a large amount of resources; self-imposed constraints; and public visibility of the use of force. This intellectual exercise has brought the challenges of the credibility of such a doctrine and its potential opposition into sharper focus. A successful policy overreaction doctrine produces the desired effect without the need for implementation; policymakers may increase the credibility of such doctrines by designing a favorable information environment, resolving issues of limited or balkanized authority, and striking an appropriate balance between non-selective and selective use of overwhelming government force. Naysayers to policy overreaction doctrines may be dealt with by incorporating ethical principles into such doctrines.

The focus of this chapter on a particular mode of disproportional policy response could be challenged on grounds that the term 'proportionality' is a colloquial expression that does not have a firm grounding in the literature on policy formulation. An interesting development in the field of legal studies, wherein this term has a solid grounding, nicely demonstrates the importance of engaging with the phenomenon of (dis)proportionality in public policy despite criticism that might be leveled against the concept itself. Recently, scholars of legal proportionality have studied the factors that play a role in the formation of proportionality judgments (Sulitzeanu-Kenan et al., 2014). In an experiment with a sample of 331 legal experts (lawyers and academics) in the policy domain of the anti-terrorist military practice of targeted killings, they found that respondents tended to judge the proposed plan as more proportional with the increase of the normative importance of its goal and the decrease in the infringements of human rights it entailed, and that there is strong correlational evidence for the effect of ideological preferences on such judgments. They concluded that proportionality judgments are

anchored jointly in the experts' policy preferences and the facts of the case (Sulitzeanu-Kenan et al., 2014).

These results raise a few general questions for policy scholars interested in proportionality analysis. What is the role of the facts of the case as well as irrelevant information (for example, policy and ideological preferences) in judgments by decision-makers and the general public regarding the proportionality of public policy? To what extent are proportionality judgments by policymakers and the general public subject to ideologically biased information processing? All of this suggests additional questions for researchers to pursue. What are the conditions under which proportionality analysis takes place during the policy formulation stage, and when is it less likely to occur? What are the causal mechanisms driving the design of policy overreaction doctrines, and why do they stimulate reforms in the allocation of authority in certain circumstances and not in others? What stereotypes and value-laden components are incorporated into policy overreaction doctrines to make sense of the reality as policymakers see it? To what extent do policy overreaction doctrines create educational effects and/or generalized priming effects? What consequences do policy overreaction doctrines have for democracy? Regardless of which questions are ultimately pursued in future research, a theory of the policy process that integrates the design and implementation of policy overreaction doctrines, as well as other modes of disproportionate policy responses, will be richer than one that is strongly normative, in the sense that efficient attainment of policy goals underlies its analysis and derived policy recommendations.

NOTES

1. http://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html (accessed 9 May 2016).
2. http://www.federalreserve.gov/newsevents/press/monetary/20070810a.htm (accessed 9 May 2016).
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