

SERGEY OSADCHIY

The Dynamics of Formal Organization

Essays on Bureaucracy and Formal Rules



THE DYNAMICS OF FORMAL ORGANIZATION

Essays on bureaucracy and formal rules

**THE DYNAMICS OF FORMAL
ORGANIZATION**
Essays on bureaucracy and formal rules

De dynamiek van de formele organisatie:
Essays over bureaucratie en formele regels

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I dedicate this dissertation to my parents.

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CHAPTER 1

INTRODUCTION: A dynamic perspective on bureaucracy

1.1 Research topic

We commonly associate the concept of organization with the presence of some kind of formal structure, which is a “blueprint for activities”, specifying “offices, departments, positions”, and various kinds of rules (Meyer & Rowan, 1977: 341; Zhou, 1993). Explaining why such formal organizational structures exist in the first place, how they develop and change, and what consequences they can have for people, organizations, and the larger society, has long been one of the central concerns of organization theory (e.g., March & Simon, 1958; Meyer and Rowan, 1977; Perrow, 1991; Pugh et al., 1968). In this regard, Max Weber’s classic analysis of bureaucracy is especially influential (Heugens, 2005). Weber’s recognition of the importance of the formal side of organization is reflected in his definition of bureaucracy, which emphasized “*official* jurisdictional areas”, “*official* duties”, principles that “*stipulate* a clearly established system of super- and subordination”, and the presence of “general *rules*” (Weber, 1978: 956-957, emphasis added). Clearly, Weber is describing an organizational structure that is *formal* in the sense of being explicitly stated, prescriptive, and analytically separate from the actual work activity (McPhee, 1985: 150).

In his work, Weber not only analyzed the socio-historical conditions that contributed to the emergence of formal-bureaucratic organizations, but also argued that bureaucratic structures enabled the achievement of important administrative goals, such as precision, speed, continuity, control, and cost reduction, which made bureaucracies “superior” to all other forms of organized action (Weber, 1978: 973). More ominously, he characterized bureaucracy as “a power instrument of the first order for the one who controls [it]”, adding that “[w]here administration has been completely bureaucratized, the resulting system of domination is practically indestructible” (Weber, 1978: 987). Many subsequent discussions of bureaucracy by organization and management theorists similarly viewed bureaucracy as a potentially effective mechanism of organizational control (e.g., Child, 1972a; Ouchi, 1980; Walton, 2005). For instance, it was suggested that formal bureaucratic rules could provide a substitute for control through direct supervision (Rothschild-Whitt, 1979: 513; see also Blau, 1970; Gouldner, 1954), due to people’s belief that such rules were part of a legitimate rational-legal order that demanded compliance (Tyler & Blader, 2005; Weber, 1978).

Weber’s claims about technical superiority of bureaucracy have inspired research linking formal structure to coordination and efficiency (e.g., Blau & Scott, 2003; Hage, 1965), explorations of bureaucracy’s ‘dysfunctions’ and ‘pathologies’ (e.g., Crozier, 1964; Gouldner, 1954; Merton, 1940), and predictions of its imminent demise and replacement by new ‘post-bureaucratic’ organizational forms (e.g., Child & McGrath, 2001; Heckscher & Donnellon, 1994; Kanter, 1989: 351). Simultaneously, Weber’s model of bureaucratic structure has been refined, challenged and defended empirically (e.g., Pugh et al., 1968; Child, 1972a; Grinyer & Yasai-Ardekani, 1980; Walton, 2005), and bureaucracy’s relationship to other variables, such as environmental uncertainty, organizational size,

strategy, performance and innovation has been scrutinized (e.g., Burns & Stalker, 1961; Grinyer & Yasai-Ardekani, 1981; Thompson, 1965).

A more dynamic perspective on bureaucracy has also been developed, focusing on how bureaucratic structures evolve over time as an organization grows and matures. Blau (1970), for example, proposed a formal theory of the effect of expanding organizational size on various types of differentiation inside bureureaucracies, and these insights were further elaborated and synthesized in subsequent research (e.g., Astley, 1985). Walsh and Dewar (1987) considered bureaucratic formalization from the perspective of organizational lifecycle theory, arguing that increases in formalization are likely to be driven by efficiency considerations in the early stages of the lifecycle and by political considertaions in the later stages.

This dissertation revisits this dynamic perspective on bureaucracy, taking up its focus on the continuity and change of both individual bureaucracies, as well as bureaucratic organizational forms more broadly. However, each of the four main essays that comprise this dissertation will address the dynamics of bureaucracy in very different ways. Chapter 2 starts with the common-place observation that bureaucracy is a remarkably enduring or persistent organizational form (e.g., Adler, 2010; Walton, 2005), and examines the role of expert actors' in the continued adoption and maintenance of bureaucratic characteristics by organizations in industrialized societies. It suggests that the reproduction or transformation of the bureaucratic organizational form and its levels of prevalence in different fields depends on the agency and interaction of different expert groups. In Chapter 3, we explore the link between *organizational memory*, which enables information to be preserved by organizations for long periods of time (Walsh & Ungson, 1991), and *formalization*, which is arguably the central dimension of bureaucracy (e.g.,

Adler & Borys, 1996). We re-conceptualize formalization as a dynamic *process* and show how this process influences the preservation and retrieval of organizational memory.

The last two major chapters contribute to the emerging literature on bureaucratic rule change and its antecedents (e.g., Beck & Kieser, 2003; March, Schulz, & Zhou, 2000). In Chapter 4, we examine how the process of *using* formal rules to deal with new organizational problems can contribute not only to the stability (Schulz, 1998a), but also to change of those rules. Complementing the view of rules as codifications of lessons from prior organizational learning (Levitt and March, 1988), our analysis of this process highlights the ability of such rules to serve as the basis for subsequent learning in their own right, with potentially destabilizing effects on the rule system. Finally, Chapter 5 reports the results of a longitudinal empirical study of rule changes in UNESCO's World Heritage Program. The study lends support to the view that political processes and organizational growth are relatively independent drivers of bureaucratic change (e.g., Blau, 1970; Child, 1972b).

1.2 Relevance

Why are bureaucracy and its dynamics still a relevant topic after almost a century of organizational research? Certainly, the organizational characteristics associated with bureaucracy, such as specialization, hierarchy, and especially formalization, remain ubiquitous in contemporary industrialized societies. For example, research by Baron, Burton, and Hannan (1999) shows that some of these characteristics were even present in a subset of Silicon Valley high-technology firms. Qualitative research has documented traces of bureaucracy in diverse organizational settings, such as a software development firm (Adler, 2005), a large consulting firm (Kärreman & Alvesson, 2004), and a research-

intensive pharmaceutical corporation (Kärreman, Sveningsson, & Alvesson, 2002). In their study of a German bank, Beck and Kieser (2003) identified 246 distinct personnel rules and found that these were changed some 655 times in the course of just eighteen years, which indicates that adjustment of bureaucratic structure is by no means a trivial task for some business organizations. Special issues in *Organization* (2004) and *Organization Studies* (2005) on bureaucracy and Max Weber, respectively, as well as the edited volume on bureaucracy by Du Gay (2005), indicate continued interest in the concept bureaucracy by students of management and organization.

Much of the discussion in this dissertation will be concerned with the dynamics of formal, written rules. The relevance of this research topic for management and policy can be better appreciated by considering how both the presence of such rules, as well as their dynamics are consequential for the achievement of organizational goals. The literature on the role of formal rules within organizations and in inter-organizational relationships has been reviewed elsewhere (e.g., March, Schulz, and Zhou, 2000; Vlaar, Van Den Bosch, & Volberda, 2007), so the main points will be summarized only briefly here based on these reviews. As has already been mentioned, formal rules, when combined with other elements of bureaucracy, constitute a potent means of controlling behavior in organizations, so that this behavior is channeled towards certain goals (e.g., Cardinal, 2001; Walton, 2005). In the face of conflicting interests, rules represent mutually agreed-on or imposed constraints that set the boundaries within which actors can pursue their interests without compromising the achievement of organizational goals (e.g., March, et al., 2000: 12-13; Nelson & Winter, 1982).

Further, rules can be an efficient means of achieving coordinated action among specialized actors in complex organizations (Galbraith 1977; March & Simon, 1958),

which is again required for realizing organizational goals. Rules preserve information (Levitt & March, 1988; Chapter 3 of this dissertation) and facilitate organizational learning and decision making under conditions of bounded rationality (Cyert & March, 1963; Heugens, 2005; March & Simon, 1958). Last, but not least, the presence of rules has become widely taken for granted as a characteristic of rational organization in modern societies, while adoption of specific rules can enable the organization to signal compliance with the demands of internal and external constituencies (Meyer & Rowan, 1977). In both cases, rules increase the social legitimacy of the organization and its activities.

Of course, these points about the relevance of formal rules for organizations require some qualification. First, notwithstanding their causal contribution towards the achievement of *some* organizational goals in the abovementioned ways, formal rules can also undermine the achievement of *other* goals due to their additional ('dysfunctional') effects (Merton, 1940; Vlaar et al., 2007). Most notably, it has often been suggested that rules, especially when combined with other characteristics of bureaucracy, tend to inhibit innovation and flexible response (e.g., Burns & Stalker, 1961; Dougherty & Corse, 1995; Merton, 1940; Thompson, 1965). However, some authors have also disputed this strong claim (Adler & Borys, 1996; Adler, Goldoftas, & Levine, 1999; Briscoe, 2007). Indeed, there appears to be no significant negative effect of formalization on innovation across studies (Damanpour, 1991), and some more recent studies actually find a positive effect on certain kinds of innovation (e.g., Cardinal, 2001; Jansen, Van Den Bosch, & Volberda, 2006). Nevertheless, the broader point about potential dysfunctional effects of rules remains a valid one (Vlaar et al., 2007).

Second, it is worth emphasizing that adoption of formal rules is not a *necessary* condition for achieving coordination, control, legitimacy, learning, etc. The literature on

organizational control, for example, has identified multiple mechanisms of control, some of which can substitute for formal rules (e.g., Lange, 2008). An influential research stream suggests that the relationship between the presence of formal rules and the organization's ability to achieve its goals with minimum costs is contingent on other characteristics of the organization, such as size and strategy, as well as on the organization's environment (e.g., Donaldson, 2001). Given this contingency argument, it is conceivable that the macro-societal and technological developments in industrialized societies might lead to conditions, where achievement of organizational goals becomes less dependent on formal rules in the majority of cases (cf. Child & McGrath, 2001). This can happen, for example, because coordination, control and decision making can be better supported by "functional alternatives" (Kallinikos & Hasselbladh, 2009: 264), such as sophisticated information and communication technologies (Dewett & Jones, 2001: 328-329). However, it should be pointed out that displacement of some rules by information technologies need not entail a net reduction in the total number of rules, since the very adoption of such technologies can stimulate the creation of new rules to regulate their use and future replacement (Huber, 1990: 62). Indeed, some empirical studies report a positive association between computerization and formalization (Dean, Yoon, & Susman, 1992; Zeffane, 1989).

Notwithstanding these qualifications, the points concerning the relevance of formal rules still have some force. When combined with certain plausible ideas about rule obsolescence, these points also entail the conclusion about the relevance of rule *dynamics*. Rules encode specific content; they stipulate the types of actions that are permitted, obligatory or prohibited in certain types of situations. This content contributes to the establishment and maintenance of certain patterns of activity (Reynaud, 2005), which can be more or less appropriate for achieving the organization's goals in a given environment

(cf. Desai, 2010). However, environmental changes can render existing patterns of organizational activity inappropriate and the associated rules *obsolete* (Jackson & Adams, 1979; Desai, 2010; Schulz, 1998b, 2003). Because adherence to obsolete rules can actually hinder the achievement of organizational goals, such obsolescence constitutes a serious practical challenge for managers and administrators. The adverse effects of rule obsolescence on organizations can be minimized through *rule change* involving repair or □ – in some cases – elimination of obsolete rules (Schulz, 2003). It follows that the topic of rule change, and rule dynamics more broadly, has considerable practical relevance.

The issue of rule obsolescence is addressed most directly in chapter 4 of this dissertation. This chapter highlights the role of reflexivity in enabling organizational members to come to a shared understanding that a particular rule has become obsolete. It shows how such reflexivity can develop via the process of ‘problem absorption’ or application of existing rules to new problems (see also Schulz, 1998a). In some respects, rule obsolescence is an instance of a broader phenomenon of obsolescence of organizational memory, which has inspired discussions of the importance of organizational unlearning (Hedberg, 1981; Tsang & Zahra, 2008) or forgetting (De Holan & Phillips, 2004) in the literature. The link between rules and memory is explored in chapter 3 of this dissertation. Finally, it should be emphasized that obsolescence of rules is certainly not the only reason why rules are changed. Stability or change in rules will often depend on the interests of organizational rule makers and their ability to exercise sufficient power in pursuit of these interests. In short, rule dynamics are shaped by organizational politics (March et al., 2000). The fifth and final chapter provides an empirical assessment of the role of organizational politics in rule change, as well as a discussion of what the findings imply for the organizational problem of coping with rule obsolescence.

1.3 Aims and scope

The broad aim of this dissertation is *to advance our understanding of the dynamics of bureaucracy, and of formal organizational rule systems in particular*. The focus on written rules is warranted because the latter can be regarded as the core characteristic of bureaucracy (Mansfield, 1973; Weber, 1978). However, it also means that other important lines of enquiry into bureaucratic dynamics will *not* be pursued here. For example, none of the chapters will touch upon the process of vertical and horizontal differentiation (Blau, 1970), the dynamics of bureaucratic centralization (Prechel, 1994), or the interrelationships between these characteristics of bureaucratic structure (Astley, 1985; Walton, 2005). From a holistic perspective, which assumes that “parts of a social entity [...] cannot be understood in isolation” (Meyer, Tsui, & Hinings, 1993: 1178), these omissions are problematic. However, there is a body of work that takes a similar approach in using the concepts of bureaucracy and formal rules more or less interchangeably (e.g., Adler & Borys, 1996; Briscoe, 2007; Schulz, 1998a; Zhou, 1993).

The scope of this dissertation will also be for the most part restricted to the *antecedents* of the dynamics of bureaucracy/rules, as opposed to its outcomes. Admittedly, this topic is already fairly well-researched. For instance, we know that organizational growth, increasing complexity and aging are associated with increased bureaucratization (Astley, 1985; Beck, 2006; Walsh & Dewar, 1987). We know that institutional forces fuel the adoption of new bureaucratic rules and/or bureaucratic reforms by organizations (DiMaggio & Powell, 1983; Edelman, 1990; Heugens & Lander, 2009; Meyer & Rowan, 1977; Tolbert & Zucker, 1983). We also know that the extent of bureaucratization at a given point in time affects the rate of bureaucratization at a later point in time (Schulz, 1998a), and that the number of changes up to a given point in time affects the probability

of further change, though the direction of the latter effect is debated (Beck, Brüderl, & Woywode, 2008). We know that rule dynamics are driven by increased uncertainty (Leblebici & Salancik, 1982), organizational problems, possibly stemming from rule obsolescence, and allocation of organizational attention to problems and sets of rules (March et al., 2000; Schulz, 1998a; Sullivan, 2010).

However, despite this progress, significant gaps in our understanding of bureaucratic/rule dynamics and its antecedents still remain, which we identify and attempt to fill in this dissertation. One such gap has to do with the treatment of the role of *actors* in existing research. No one would deny that rule adoption or change would be impossible without human effort. Yet, many studies of these dynamics still present a somewhat passive view of actors, in the sense that actors are implicitly assumed to adjust bureaucratic structure merely in *response* to various organizational and environmental conditions like changing organizational size, environmental uncertainty, rule obsolescence, falling performance, institutional demands, and so on. Non-adjustment of bureaucratic structure is attributed to various constraints on actors, including scarcity of attention (Ocasio, 1997; Sullivan, 2010), structural inertia (Hannan & Freeman, 1984), path dependence (Zhou, 1993; see also Sydow, Schreyögg, & Koch, 2009), and institutionalization (Schulz, 2003), which again gives the impression passivity on the part of actors in mediating the effects of these constraints.

Several chapters of this dissertation take issue with this implicit portrayal of actors. Our preferred theoretical strategy, which is inspired by the structure and agency debate in organizational institutionalism (e.g., DiMaggio, 1988; Heugens & Lander, 2009), is to shift the focus of explanation away from the environmental and organizational conditions and constraints that are assumed to be straightforwardly mediated by actors'

responses, and towards the mediation process itself. We focus on the more ‘active’ explanatory role of actors by highlighting the causal relevance of their interests and strategic activities (Chapters 2), reflexivity (Chapter 4) and ability to exercise power in pursuit of conflicting interests (Chapter 5)¹. Chapter 3 integrates ideas from a variety of literatures to reveal “what organizational members actually *do*” (Orlikowski & Yates, 2002: 686) in the process of formalizing lessons of organizational experience into rules and implementing these rules. We argue that the component activities of this process make a difference to the ability of rules to preserve information. The empirical findings reported in chapter 5 indicate that variation in the overall power position of actors represented on the rulemaking body affects the rate of rule change. More broadly, the results highlight the political dimension of bureaucracy and formalization, which deserves research attention.

Another contribution of this dissertation is to further develop certain existing concepts, as well as introduce some new ones, and to argue for the usefulness of these concepts in thinking about bureaucracy and rules. Chapter 2 develops the concept of *persistence* of organizational forms – bureaucratic forms, in particular – by distinguishing between three persistence paths. Chapter 3 develops the concept of the *memory function* of formalization, suggesting ways to explain variation in the strength of this function. Chapter 4 draws on Schulz’s (1998a) idea that rules can absorb problems and provides an extensive analysis of the ‘problem absorption’ process and its consequences.

¹ Of course, this dissertation addresses only a very small subset of the characteristics of individuals involved in the creation and application of rules that could play a role in shaping bureaucracy. Other potentially relevant characteristics like uncertainty avoidance, level of experience, or status are left out of the analyses. Our choice of factors to focus on was guided by the specific theoretical perspectives that we sought to build on. Future research on rules should strive to address the characteristics of actors more systematically than we do here.

A third notable feature of this dissertation is our attempt to engage with a wide variety of theoretical perspectives and literatures, instead of restricting the dissertation's scope to a narrowly-defined research problem or theoretical tradition. Part of the reason for this has to do with the nature and social significance of formal rules themselves that, as mentioned in the previous section of this chapter, has led researchers to study rules in relation to diverse social phenomena like coordination, control, cognition, institutions and so on (cf. Vlaar et al., 2007). Each of these phenomena has in turn stimulated a distinct line of enquiry. This differentiation of research dealing with formal rules in one way or another means that researchers, for whom such rules are the *focal* phenomenon of interest, must draw on multiple research programs. While no full-fledged *integration* of multiple theories is attempted here, the dissertation does make some fruitful connections between theories.

Chapter 2, for example, reconnects organizational institutionalism to the topic of bureaucracy, which figured prominently in the articles that initially set out the main ideas underpinning the institutional perspective (DiMaggio & Powell, 1983; Meyer & Rowan, 1977), but has all but disappeared as in the course of its subsequent development and applications (but see Hallett & Ventresca, 2006). Chapters 3 and 4 also develop further the connection between organizational rules and organizational learning and memory, which was first proposed in the work of James March and his colleagues (Cyert & March, 1963; Levitt & March, 1988; March et al., 2000). Chapter 4 also capitalizes on striking parallels between Schulz's (1998a) ideas about problem absorption, Corley and Gioia's (2003) concept of semantic learning, and some insights of the new processual perspective on organizations and organizational change (Tsoukas & Chia, 2002; see also Hernes & Maitlis, 2010). Finally, chapter 5 juxtaposes two perspectives on organizational change:

the technical-contingency perspective (Donaldson, 2001) and the political or upper-echelon perspective (Child, 1972b; Hambrick & Mason, 1984; Wiersema & Bantel, 1992).

This variety of perspectives notwithstanding, it should be noted that all of them are located within the disciplinary boundaries of management research and organizational sociology. Important literature on bureaucracy and rules stemming from other academic disciplines, such as political science, law, economics, and philosophy was not used in developing the arguments in this dissertation. Thus, the chief assumption that characterizes the whole dissertation is the view of formal rules as an organizational and social phenomenon. The politico-legal origins, the economic rationale, and the normative significance of many organizational rules, although no doubt important topics, are left unexamined in this dissertation.

Finally, the scope of this dissertation is intentionally limited to formal or *written* rules. This is again in line with previous research on bureaucratic dynamics (March et al., 2000) and with Weber's (1978: 219) emphasis on "rules [that] are formulated and recorded in writing". Still, it must be acknowledged that informal (i.e. unwritten) rules may well be at least as important for the achievement of organizational goals as formal ones, and may sometimes even substitute the latter. Such rules arguably constitute an important aspect of organizational culture (Schall, 1983), as well as the broader socio-institutional environment (Meyer & Rowan, 1977). Recognized (but unwritten) *precedents* that have been set by past organizational decisions (cf. Boje, 1991; Cyert and March, 1963) are also an example of informal rules. The same formal rules can lead to quite different patterns of behavior, depending on which informal rules are present (Reynaud, 2005). Conversely, the content of informal rules and actors' willingness to comply with them may depend on the formal rules that are in force.

1.4 Structure of the dissertation

The four major chapters take rather different approaches to the topic of bureaucratic dynamics and can be read independently. The commonalities between the chapters are limited to the overlap in the literature that is cited and, as already mentioned, to the fact that all of the chapters (with the possible exception of chapter 3) are concerned with the *antecedents* of bureaucratic dynamics. Emphasis on the role of actors is another common theme of this dissertation. The first three major chapters are conceptual, while chapter 5 presents a longitudinal empirical study of rule dynamics at an intergovernmental organization (UNESCO's World Heritage Program). Some salient features of the different chapters have already been highlighted. Nevertheless, it would be worthwhile to say a few more words about the chapters, specifically regarding the differences in the levels of analysis and in the focal antecedents of bureaucratic dynamics. **Table 1.1** provides an overview of the chapters, pulling together some of the points that have already been made in other sections of this introduction.

Chapter 2 differs from all the other chapters in that it focuses on the fate of the bureaucratic organizational *form* that can be instantiated by multiple organizations at the macro-societal level, rather than focusing on bureaucratic dynamics at the level of a single organization. Following the institutional view that societies comprise multiple organizational *fields* (DiMaggio & Powell, 1983), it suggests that the fate of bureaucracy can differ across these fields. The central claim of the chapter, however, is that bureaucracy *persists* (i.e. remains prevalent) as an organizational form in many of these fields, and hence in society at large. However, simultaneously with persistence, bureaucratic form can also undergo some degree of transformation, giving rise to distinct 'persistence paths'. The failure of many fields to de-bureaucratize (i.e. bureaucratic

persistence) together with some changes to the form itself that *enable* it to persist (i.e. persistence paths) are the two focal dynamics that this chapter is concerned with. It traces the antecedents of these dynamics to the institutional embeddedness and political interactions of various professional/expert groups in late industrial societies.

In the other three chapters, the level of analysis is a single organization. Chapters 3 and 4 are concerned with what happens inside an organization that exhibits some characteristics of bureaucracy, such as formal rules and hierarchy. The focal dynamic in Chapter 3 is the entire process of formalization, which includes both the establishment and modification of an organizational rule system through codification, as well as the enforcement process aimed at connecting rules to action. Unlike the other chapters, which address the antecedents of this dynamic process, this chapter focuses on its consequences for organizational memory.

Chapter 4 continues with the theme of rule use that is already highlighted in chapter 3. Following Tsoukas and Chia (2002), we argue in chapter 4 that the use of formal rules generates an important dynamic, namely modifications of the categories of those rules. We identify problem absorption (Schulz, 1998a) as the chief source of such modifications. In contrast to earlier literature, which argues that problem absorption contributes to the stability of formal rules, we argue that because of its effect on the categories, it can also lead to changes in the actual *text* of formal rules under certain conditions. Thus the chapter also addresses another dynamic, namely formal rule change (revision or suspension). Connections with the concept of organizational learning are also made in this chapter.

Finally, Chapter 5 again looks at formal rule change as the focal dynamic, examining how it is affected by various antecedents (cf. Beck & Kieser, 2003). The

antecedents addressed in this chapter include different aspects of organizational growth, as well as characteristics of the rule-making body. The empirical context for this chapter is UNESCO’s Heritage Program. We collected archival data on the evolution of a specific rule book, namely the Operational Guidelines for the implementation of the World Heritage Convention, between 1977 and 2004. We distinguish between two theoretical perspectives on organizational change, namely the technical and the political perspective, and derive some hypotheses about the antecedents of rule change on the basis of these perspectives. These hypotheses are then tested by applying the statistical techniques of event history analysis to the UNESCO data.

In sum, this dissertation analyses several kinds of bureaucratic dynamics and develops some explanations of these dynamics. Two of these explanations are tested empirically. The dissertation contributes to understanding how and why bureaucracies change over time.

Table 1.1: Dissertation overview

	Chapter 2	Chapter 3	Chapter 4	Chapter 5
<i>Focal dynamic</i>	Persistence of bureaucracy, change to bureaucratic form	The process of formalization	Rule change (revision and suspension)	Rule change (revision and suspension)
<i>Level of analysis</i>	Macro-societal, organizational field	Intra-organizational	Intra-organizational	Organizational/intra-organizational
<i>Main antecedents</i>	Activities of expert groups, interactions	Experience, problems	Problem absorption	Organizational growth, rule makers’ power
<i>Treatment of actors</i>	Focus on interests, embedded agency	Focus on activities	Focus on reflexivity, learning	Focus on power, politics
<i>Theoretical perspectives</i>	Institutional theory	Organizational learning theory	Process perspective, organizational learning theory	Structural contingency theory, political perspective

CHAPTER 2

BUREAUCRATIC PERSISTENCE PATHS: The role of embedded agency

In the context of today's post-industrial economy, bureaucracy is widely condemned as obsolete, while radically different post-bureaucratic forms have long been expected to replace it. Yet many organizations today continue to be governed by bureaucratic principles. Building on the recent neo-institutional work on embedded agency, while also moving beyond the more deterministic versions of legitimacy-based explanations of institutional persistence, we outline an actor-centered perspective for explaining the different ways in which bureaucracy persists.

2.1 Introduction

Bureaucracy is a widely maligned organizational form, accused of inculcating its members with trained incapacities (Merton, 1940), of stifling their entrepreneurial spirit (Sørensen, 2007), and of 'whittling away' many functions traditionally performed by other institutions (Perrow, 1991: 375). Recent social, economic, and technological developments associated with the advent of the post-industrial era of networked societies (Castells, 1996) are therefore often interpreted as entailing bureaucracy's inevitable demise and replacement by qualitatively different forms of organization (e.g., Child & McGrath, 2001; DiMaggio, 2001; Heydebrand, 1989; Kallinikos, 2006). Yet, "the extent to which bureaucracy has in fact become less prevalent remains a very open question" (Lounsbury & Carberry, 2005: 516; see also Adler, 2010; Du Gay, 2005; Hales, 2002; Olsen, 2008). Meta-analytic evidence shows that the association between the various features of bureaucracy has

remained strong and consistent over time (Walton, 2005: 586), and some observers discern the covert perpetuation of bureaucratic organizational principles in ostensibly post-bureaucratic organizational contexts (Courpasson & Clegg, 2006).

Even though extant work in organizational sociology and management theory contains important insights on how organizational forms in general, and bureaucratic forms in particular, are able to persist in the face of potential alternatives (e.g. Carroll & Harrison, 1994; Meyer & Rowan, 1977; Stinchcombe, 1965), bureaucratic persistence remains a weakly understood phenomenon. In fact, the most influential explanations of bureaucratization and form persistence that can be extracted from the literature appeal primarily to impersonal macro-level social forces and processes, such as rationalization (Meyer, 1987; Weber, 1978), institutionalization (Meyer & Rowan, 1977), isomorphism through coercive, mimetic and normative pressures (DiMaggio & Powell, 1983), path-dependent evolution (Carroll & Harrison, 1994), and imbalances in the historically constituted competitive structure (Stinchcombe, 1965). These ‘social forces’ explanations either leave out altogether or treat as epiphenomenal the role of actors who establish, manage, work in, benefit from, advise, monitor, or regulate today’s organizations. More precisely, they neglect the institutional work activities that may be necessary to maintain, change, or do away with bureaucracy (Lawrence & Suddaby, 2006).

The mechanistic accounts of the institutional reproduction of bureaucracy point to a more general gap in institutional theorizing. Paradoxically, even though persistence is undoubtedly a fundamental issue in institutional theory (e.g. Zucker, 1977), institutional scholars have recently tended to “accord little attention to the issue of institutional persistence” and the role of power and agency in it (Scott, 2001: 110, but see Lawrence, Winn, & Jennings, 2001), preferring instead to focus more on the problem of institutional

change (e.g. Seo & Creed, 2002). The purpose of this chapter is therefore to revisit the issue of bureaucratization and bureaucratic persistence in light of more recent developments in (neo) institutional theorizing (DiMaggio, 1988; Fligstein, 2001; Seo & Creed, 2002), which take the notion of embedded agency seriously. Moving beyond deterministic explanations and grand narratives about historical trends in society (e.g. modernity vs. post-modernity), we outline a more middle range (Merton, 1968) and actor-centered approach, where bureaucratic persistence at organizational field level is seen as a contingent outcome of skillful political interaction among structurally positioned actors within the field (Fligstein, 2001).

The chapter's core thesis is that several distinct classes of professional agents have their interests based in and shaped by bureaucracies, which can induce them to contribute to the perpetuation of this organizational form. But although in many cases the 'upholders' of bureaucratic organizational principles are powerful and privileged actors, they only succeed at preserving the bureaucratic form as it once was in a limited subset of cases. More frequently, these actors are forced by the larger macrosocial environment in which they are embedded to give continuity to the bureaucratic form by infusing it with non-bureaucratic elements, or by transposing it to previously non-bureaucratic contexts (Sewell, 1992). Bureaucratic persistence is thus conceptualized as a transformative process involving multiple *persistence paths*, rather than a static and unitary phenomenon.

The actor-centered take on bureaucratic persistence yields two contributions. To extant research on bureaucracy and bureaucratization (e.g., Adler & Borys, 1996; Heugens, 2005; Meyer, 1987; Weber, 1978), it offers the insight that bureaucratic persistence is a multifaceted rather than a unitary process that is contingent on local interactions between different expert groups. If "bureaucratic forms remain central and important ways of

organizing” (Lounsbury & Carberry, 2005: 516), then both management researchers and practitioners need to be aware of the agentic mechanisms underlying this phenomenon. Second, we contribute to neo-institutional theory, which has strongly emphasized the role of social legitimacy in explaining institutional persistence (Meyer & Rowan, 1977; Zucker, 1977), by using the case of bureaucracy to illustrate the fruitfulness of combining legitimacy-based and interest-based explanations of persistence (cf. Stryker, 2000). Given the strong focus of recent work in (neo) institutional theory on the problem of institutional change (e.g. Seo & Creed, 2002) and its tendency to give less attention to institutional persistence (Scott, 2001: 110) the case of bureaucracy may help to reawaken institutional scholars’ interest in the latter topic.

The chapter is organized as follows. First, extant theoretical approaches to persistence of organizational forms and bureaucracy are reviewed, and definitional issues are addressed. This sets the stage for the analysis of bureaucratic persistence proper in the next section, which focuses on the role of expert groups. In the third part of the analysis we describe three distinct trajectories or paths of bureaucratic persistence and suggest a way to explain them based on the actor-centered perspective. A discussion and conclusion closes the chapter.

2.2 Theoretical background

2.2.1 Explanations of Bureaucratic Persistence

Among the fundamental questions of organization theory, such as “why are there so many kinds of organizations?” (Hannan & Freeman, 1977: 936) or “what makes organizations so similar?” (DiMaggio & Powell, 1983: 147), should be included the question “what makes

some kinds of organizations so enduring?” In raising this question, Stinchcombe (1965: 168) pointed out that new organizational forms do not necessarily displace older ones, even when the former are have a superior capacity to generate wealth, power and legitimacy. He also suggested that forms could persist because of “traditionalizing forces, the vesting of interests, and the working out of ideologies”, or due to imbalances in the “competitive structure” (1965: 169). The role of ‘traditionalizing forces’ was later taken up by institutional theorists and population ecologists (Carroll & Hannan, 2000; DiMaggio & Powell, 1991), who argued that forms that have already been adopted by large numbers of organizations tended to become cognitively taken-for-granted ways of organizing or normatively “infuse[d] with value” (Selznick, 1957: 15), which gave those forms a legitimacy advantage and contributed to their persistence.

Max Weber (1978: 987) famously characterized bureaucracy as being “among the social structures which are hardest to destroy” and offered several arguments for this claim. In particular, he pointed to bureaucracy’s “technical superiority” in accomplishing administrative tasks (Weber, 1978: 973; see also Heugens, 2005), as well as to its role as a robust “system of domination” (Weber, 1978: 987). Weber further suggested that bureaucracy’s entanglement with other important institutions of modernity, such as democracy and capitalist production, meant that forced attempts to dispense with private and public bureaucracies would result in “chaos” (1978: 988). Finally, he emphasized the influence of bureaucracy on human actors, who would tend acquire the “habit of painstaking obedience” to bureaucratic authority and a “settled orientation [...] for observing the accustomed rules and regulations” (1978: 988; see also Merton, 1940).

The explanations for bureaucratic persistence offered by subsequent theorists largely echoed these arguments of Weber. Contingency theorists argued that for reasons of

technical rationality or efficiency, as an organization grows beyond a certain size, its structure would tend to become more bureaucratic (Astley, 1985). This suggests that the issue of bureaucratic persistence at least partly reduces to the issue of persistence of large organizations (but see Rajan & Wulf (2006) on the delaying of managerial hierarchies in large firms). Institutional theorists argued that bureaucracy persists as an institutionalized template for organizing that is reproduced through coercive, mimetic and normative forces (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). In line with the institutional view, some scholars have even suggested that the cultural understanding of ‘rational’ organization as presupposing formal rule-based structures has become so strong that it is very difficult to conceive of other possibilities (Meyer, 1987).

Insightful as they are, these explanations leave important gaps in our understanding of bureaucratic persistence. First, they fail to distinguish and account for multiple paths of bureaucratic persistence, such as the emergence of bureaucratic hybrids (Courpasson & Clegg, 2006). Because of their macro-level nature, most of these explanations are not very useful for explaining differences in how bureaucratic persistence might play out across different organizational fields. Second, institutional explanations tend to assume rather than account for the continued ability of bureaucratic structures to confer legitimacy, which is an important theoretical problem given that bureaucracy is widely condemned as an inefficient, outdated and even morally problematic way of organizing (cf. Du Gay, 2000). Third, they do not explicitly address the role of actors in bureaucratic persistence. Organizational actors are assumed to be a largely homogenous set of ‘cultural dopes’ at the mercy of impersonal institutional forces (Hirsch & Lounsbury, 1997: 415).

While theories of institutional *change* tend to emphasize the role of skillful activity, agency and praxis (Barley & Tolbert, 1997; DiMaggio, 1988; Fligstein, 2001; Lawrence & Suddaby, 2006; Seo & Creed, 2002), there still remains some disagreement over the extent to which the social processes underlying institutional *stability* and persistence are “relatively self-activating” (Jepperson, 1991: 145) versus actively requiring maintenance efforts on the part of actors (Lawrence & Suddaby 2006; Lawrence et al., 2001; Scott, 2001; Zucker, 1988). Although we cannot address the issues raised in this debate here, we opt for an actor-centered approach to persistence in this chapter, while at the same time accommodating the ‘self-activation’ intuition by allowing for the possibility of persistence being partly an unintended outcome of intentional action (Giddens, 1984; Merton, 1936). In this, we depart to some extent from previous, more deterministic accounts of persistence. This does not mean that macro-environmental conditions are unimportant, but rather that a full explanation must embrace the dialectical interplay between structure *and* agency (Archer, 1995; Benson, 1977; Seo & Creed, 2002).

2.2.2 Defining Bureaucracy and Post-bureaucracy

Two broad conceptualizations of bureaucracy can be distinguished, which also suggest different ways of analyzing bureaucratic persistence. The first conceptualization favors a clear-cut classification of organizations as bureaucracies versus non-bureaucracies based on some binary criterion, such as whether human involvement in the organization is premised on a separation of the organizational role from the person occupying that role (see Kallinikos, 2004). In logical terms, this conceptualization is a ‘crisp set’ treatment of organizational forms (Hannan, Pólos, & Carroll, 2007). A corollary of this approach is that the number of bureaucracies still operating becomes a straightforward proxy for

bureaucratic persistence. The second conceptualization, which has been commonly used in empirical studies within the structural contingency theory paradigm (e.g. Hall, 1963; Walton, 2005), treats bureaucracy/bureaucratization as a matter of degree. In logical terms, this conceptualization corresponds to a ‘fuzzy set’ approach to organizational forms (Hannan et al., 2007). From this perspective, a decline in the number of more or less ‘pure’ Weberian bureaucracies, which constitute the ‘core’ of the fuzzy set, does not tell us a complete story about bureaucratic persistence, since there may still exist substantial numbers of moderately bureaucratic organizations. Bureaucratic persistence must therefore be regarded as a function of both the number of organizations in a given field and their overall degree of bureaucratization.

While the crisp set approach to defining bureaucracy is parsimonious and rightly emphasizes separation of the role from the person as the form’s essential feature (Kallinikos, 2004), it does not seem to allow for the blurring of distinctions among forms (Hannan et al., 2007: 30) or the possibility of an organization being a bureaucracy “in some respects but not in others” (ibid.: 33). Furthermore, as Kallinikos (2004: 31) himself acknowledges, his proposed binary criterion has the consequence of classifying “the overwhelming majority of formal organizations as bureaucratic”, including organizations with virtually no formalized rules and hierarchy, which many will find to be too radical a break with established usage of the term ‘bureaucracy’.

To avoid these shortcomings, the ‘fuzzy set’ conceptualization is presupposed throughout the remainder of this chapter. Following previous literature, the bureaucratic form is characterized by a number of interrelated dimensions, namely formalization, standardization, vertical and horizontal differentiation, task specialization and decentralization (cf. Walton, 2005). Higher values for all these dimensions indicate higher

levels of bureaucratization. In practice, high levels of formalization and administrative intensity (a measure of hierarchy) are sufficient for an organization to be labeled as bureaucratic, indicating that these may be the form's core features.

The period of industrialization saw the founding and growth of large numbers of organizations with high values on the abovementioned structural features, making bureaucracy the dominant organizational form in a variety of organizational fields (Perrow, 1991; Weber, 1978). More recently, academic debate focused on the emergence of potential alternatives to bureaucracy that were expected to play an increasingly important role in the post-industrial economy (e.g., Child & McGrath, 2001; DiMaggio, 2001; Heydebrand, 1989). These 'new organizational forms' (e.g., Daft & Lewin, 1993; Palmer, Benveniste, & Dunford, 2007) are often also termed 'post-bureaucratic' (e.g., Barley & Kunda, 2001; Heckscher & Donnellon, 1994), since they are usually assumed to exhibit almost none of the abovementioned bureaucratic features.

Although "there is little agreement on the core attributes of post-bureaucratic organizing" (Barley & Kunda, 2001: 77), the attributes generally associated with it include team-based (rather than hierarchical) decision making, "general" (rather than "specialized") roles, "fuzzy" (rather than "clear") role definitions, and reliance on "horizontal" and "relationship-based" (rather than "hierarchical" and "rule-based") modes of coordination, control and resource allocation (cf. Child & McGrath, 2001: 1136-1137). Organizational forms incorporating these attributes are expected to be free of the various bureaucratic 'dysfunctions' (Merton, 1940) and more suited to contemporary information-intensive hypercompetitive environments, where flexibility, learning, innovation, and collaboration have become crucial (Child & McGrath, 2001). Yet, as mentioned in the introduction, bureaucracy appears to be a very persistent organizational form, confirming

Weber's (1978: 988) early scepticism about the "idea of eliminating [private bureaucracies]", which he considered "utopian".

2.2.3 Persistence at the Organizational Field Level

Theories of bureaucratization or the rise of post-bureaucracy generally focus on macro-historical trends in whole societies (e.g. Castells, 1996; Kallinikos, 2006; Meyer, 1987; Olsen, 2008; Weber, 1978), while in-depth analyses of bureaucratization of specific organizational fields are still comparatively rare (but see Haveman, Rao, & Paruchuri, 2007). In this chapter, however, bureaucratic persistence is theorized at the field level of analysis. Naturally, the extent of bureaucracy's persistence in society's different organizational fields will partly determine the extent of its persistence in society as a whole, and so the analysis will have a direct bearing on the latter issue. However, persistence at society level is also affected by the macro dynamics of field emergence and decline (extinction), which are beyond the scope of this chapter.

Our analysis will be concerned both with changes to the kinds of organizational forms that are present in the field as well as the changes to the features of those forms themselves, since even highly institutionalized forms can change over time (Hsu & Hannan, 2005). Where the dominant organizational population(s) within a field still exhibit(s) most of the major bureaucratic features, we have a clear case of bureaucratic persistence. However, bureaucracy might also persist in niches at the periphery of the field alongside dominant non-bureaucratic populations (Carroll & Hannan, 2000; DiMaggio & Powell 1983). Furthermore, bureaucratic organizational populations (and consequently the bureaucratic organizational form itself) can persist within a given field through processes

that tend to reduce their contrast to non-bureaucratic ones, enabling them to merge, as it were, into the new post-bureaucratic organizational landscape.

2.3 Ebedded actors and bureaucratic persistence

Recent work in neo-institutional theory sought to move away from viewing social activity as fully determined by institutional structures and forces and to allow the concept of *agency*, which refers to “an actor’s ability to have some effect on the social world, altering the rules or the distribution of resources” (Scott, 2001: 176), to play a greater explanatory role (e.g., Barley & Tolbert, 1997; DiMaggio, 1988; Lawrence & Suddaby, 2006). In doing so, it has been forced to grapple with the so-called ‘paradox of embedded agency’: the problem of reconciling the possibility of institutional change through agency with the central neo-institutionalist tenet that actors’ very identities, beliefs, interests and powers are institutionally defined and shaped (Garud, Hardy, & Maguire, 2007: 961; Holm, 1995; Seo & Creed, 2002).

A variety of proposals for resolving the paradox have been put forward (for a review see Garud et al., 2007). For the purposes of this chapter, however, it is the concept of institutionally embedded agency itself that is important. According to Greenwood and Suddaby (2006: 29), an actor’s embeddedness with respect to an institution implies that the actor is not “motivated to change” that institution, and not “aware of or open to alternatives” to that institution. Thus, institutional embeddedness clearly acts as a structural constraint on actors’ willingness and capacity to exercise certain kinds of agency. Nevertheless, institutional embeddedness as such should not be equated with structural constraint. Whether social structure will act as a constraining or as an enabling force on agency depends on the nature of the specific “agential projects” under consideration

(Archer, 2010: 278). Seo and Creed (2002: 241) suggest that actors' tendency to act in ways that reproduce and maintain institutional structures is related to whether or not they benefit from these structures. The role of such "structurally reproductive" agency (Hays, 1994: 63) should therefore be explicitly acknowledged and analyzed in our accounts of institutional persistence. The discussion below builds on extant efforts in this direction, such as Lawrence and Suddaby's (2006) notion of 'institutional maintenance work', by examining the role of expert groups in the persistence and transformation of the bureaucratic organization form.

2.3.1 Expert Groups and Bureaucracy Maintenance

Weber (1978) argued that the historical trend towards rationalization, which has contributed to the emergence and ascendancy of bureaucratic organization, has also resulted in "the production of a new type of person: the specialist or technical expert", who seeks to "master reality by means of increasingly precise and abstract concepts" (Clegg, 2005: 533). Trained bureaucratic officials themselves constitute just one expert group among others in late modernity (Reed, 1996). While prior research has recognized the role of the professionals and experts as institutional change agents who make possible the development and diffusion of new practices (DiMaggio & Powell, 1983; Hwang & Powell, 2009; Scott, 2007), the discussion in this section will explore why certain expert groups can also contribute to the persistence of bureaucracy.

The focus on expert groups is not meant to suggest that other classes of social actors, such as consumers of organizational products, have no influence on the features of organizational forms and their creation, persistence or decline. However, in highly rationalized late modern societies the influence of these other constituencies on

organizations is usually mediated by expert groups (Hannan et al., 2007; Hwang & Powell, 2009). Especially when it comes to the structural features of organizational forms, these are usually determined by and for the most part based on highly complex and specialized bodies of managerial, technological, legal, and other expertise, and only afterwards based on the preferences and beliefs of non-expert constituencies. Furthermore, the preferences and beliefs of the latter are themselves culturally and institutionally shaped by expert discourses about appropriate ways of structuring organizations.

Following Reed (1996), three broad classes of expert actors in late modern societies can be identified: the liberal/independent professions (doctors, lawyers, architects and accountants), the organizational professions (including officials employed by the state), and the entrepreneurial professions or ‘knowledge workers’ (consultants, IT and financial analysts, R&D engineers). The thesis to be elaborated in the next sub-section is that bureaucracy persists primarily because of the institutional maintenance work activities (Lawrence & Suddaby, 2006) of members of the first two expert groups. Activities like rulemaking (March, Schulz, & Zhou, 2000) and establishment of new administrative positions on the basis of professional expertise from fields such as human resource management, accounting, and law, directly contribute to the bureaucratization of organizational structures.

Furthermore, experts may also engage in activities that contribute to bureaucratization in a less direct fashion, such as auditing (Lawrence & Suddaby, 2006; Power, 1999), which often encourages bureaucratic record-keeping and greater concern with administrative standardization. An even subtler way in which actors may contribute towards maintaining bureaucracy is through enforcement of managerial training, selection, and promotion practices that are biased in favor of bureaucratic credentials and expertise

(Lawrence & Suddaby, 2006), thereby staffing bureaucracies with actors who will be less likely to challenge it. Last, but not least, actors may engage in defensive institutional work (Maguire & Hardy, 2009) that deters and subverts de-bureaucratization projects rather than contributes to bureaucratization directly (Lawrence & Suddaby, 2006).

Legitimacy and interests. The motivation and ability of actors to construct and maintain bureaucratic structures despite the possibility for contestation of the legitimacy of those structures on the basis of alternative institutional logics in society (Friedland & Alford, 1991) requires an explanation that treats legitimacy itself as a product of social mechanisms involving defense and pursuit of interests by structurally privileged actors (Stryker, 2000). In the case of professional groups, the chief interest is likely to be maintenance of the demand for the distinct bodies of expertise that define the professions (Reed, 1996). In practice, pursuit of this interest can lead to intended or unintended bureaucratization of organizations. For instance, legal and accounting professionals may favor having more rather than less rules in a certain organization because the need to draft and monitor these rules helps to maintain the demand for their expertise. Similarly, managers may favor more specialized and narrow job definitions for the staff, because this serves to legitimate management's coordination and supervision role. Members of both expert groups will therefore be more likely to question the legitimacy of organizational structures that lack the aforementioned bureaucratic elements than those that do not. And insofar as other actors are willing to defer to their judgments, this may in turn help to reproduce the bureaucracy's legitimacy.

More broadly, the suggestion is that established professional expertise of certain groups still tends to go hand-in-hand with bureaucratization, remaining to a large extent tailored to bureaucracies, and that this makes those expert groups institutionally embedded

in relation to bureaucracy. Historically, the processes of professionalization and bureaucratization occurred more or less simultaneously and were intertwined (Waters, 1989; Weber, 1978). As professional expertise tends to develop in a relatively path-dependent fashion, established bodies of expertise of the traditional professions have remained closely aligned with the bureaucratic organizational form. Modern legal expertise, for example, which has its origins in the bureaucratic court system (Weber, 1978), tends to be increasingly incorporated into the fabric of organizational structure in the form of legalistic rules and policies in an attempt to structure organizational decision making following the model provided by legal settings (cf. Sitkin & Bies, 1993: 345; see also Edelman & Suchman, 1997), thereby contributing the social reproduction of key features of the bureaucratic form, such as formalization and standardization.

Similarly, the accounting profession has contributed to the bureaucratization of organizational decision making through management accounting techniques that put emphasis on hierarchical planning and control, standardized measurement of efficiency of organizational processes, and formalization of resource allocation criteria. Even medical professionals may sometimes play their part in bureaucratization by advocating complex sets of organizational health and safety rules. Once established, bureaucratic rule systems that embody professional expertise are likely to require monitoring and periodic adjustment (March et al., 2000), thus generating further demand for expert services. It is therefore not surprising that the clients served by liberal professionals are frequently bureaucratic organizations. Because of this enduring complementarity, today's organizations (including post-bureaucratic ones) are likely to find it difficult to make full use of these services without bureaucratizing. At the same time, professional groups have a vested interest in protecting their expertise from contestation through occupational closure

and institutional control (Reed, 1996). Thus, the fate of the bureaucratic form will be at least in part determined by outcome of the struggles over jurisdiction between the traditional 'liberal' professions and newly emergent expert groups (Reed, 1996).

A parallel argument can be also made with regard to the institutional embeddedness of the organizational professions, such as managers and human resource experts, who must rely on a knowledge base that is essentially 'craft-like' (Reed, 1996: 584; Whitley, 1989) and is usually acquired by actors through prolonged local hands-on experience (Penrose, 1959). Their sunk investments in local (often organization-specific) knowledge makes them resistant to any macro-societal changes that risk rendering this knowledge obsolete. Design and implementation of bureaucratic control systems is highly dependent on the local knowledge and skill of organizational professionals, who also benefit from the opportunity to deploy these systems to further their own interests (Reed, 1996: 585). Historically, major managerial innovations in the area of organizational control, such as Scientific Management and Fordism, have not only been quite congruent with the bureaucratic form, but have also acted as a contributory factor in bureaucratization (Littler, 1978). Whether more recent organizational control systems and techniques (e.g. 'management by objectives', 'total quality management') break with this pattern by being more in line with post-bureaucratic organizational forms remains an open question (cf. Jermier, 1998: 246). In any event, dismantling bureaucracy risks undermining the status and power advantages that organizational professionals' can derive from occupancy of prestigious offices within bureaucratic hierarchies.

Proposition 1. Liberal and organizational professionals are more likely to engage in bureaucracy maintenance activities when they are located in professional and

organizational fields that have either historically been highly bureaucratized themselves or had close links to bureaucratic organizations.

2.3.2 Opposition to Bureaucracy

Liberal and organizational professions. The arguments in the previous sub-section have focused on why actors from certain professional groups might be motivated to act in ways that contribute to bureaucratic persistence. However, it is also important to consider whether some actors from these same groups may also have reasons to resist bureaucracy in certain contexts. For instance, the notion of professional-bureaucracy conflict (e.g., Sorensen & Sorensen, 1974) suggests that liberal professionals will favor reduced bureaucracy inside professional organizations or departments that they work in (Wallace, 1995), especially when such bureaucratization is perceived as threatening to their autonomy (Hall, 1968) or as bringing about greater standardization and commoditization of expert services (Reed, 1996). Although this point does not invalidate our argument regarding the contribution of liberal professionals to the proliferation of bureaucracy in various organizational fields, it does provide an important qualification by suggesting that liberal professionals seek to escape the bureaucratic pressures that they themselves help to unleash. This is especially evident in the case of in-house professionals, who attempt to insulate their departments from the formal-hierarchical controls that characterize the rest of the bureaucratic organization (Wallace, 1995). It is worth noting, however, that resistance to bureaucratic pressures inside professional organizations appears to be weakening as elite professionals are increasingly taking on managerial roles (Friedson, 1984). We will return to this point in our discussion of bureaucratic persistence through infiltration.

Similarly, our claims concerning organizational professionals' contribution to

bureaucratic persistence require some qualification. Indeed, it may be more accurate to describe this group as being internally divided on the question of organizational design. For instance, the professional discipline of ‘Human Resource Management’ has sometimes exhibited an anti-bureaucratic ideological orientation (Barley & Kunda, 1992), despite being the wellspring of many rationalized and bureaucratic practices in organizations (Baron, Dobbin, & Jennings, 1986). Managers may be ambivalent towards bureaucratic structures (Adler, 2010) due to personal experience with bureaucratic dysfunctions (Merton, 1940), or because such structures are inconsistent with their interest in “maximizing their own autonomy” through workplace norms that mimic those of the liberal professions (Leicht & Fennell, 1997: 228). Inspired by anti-bureaucratic rhetoric and the economic rewards that it promises (Du Gay, 2000), senior managers sometimes initiate organizational changes ostensibly aimed at reducing the levels of bureaucratization (cf. Salaman, 2005), including strong measures like delaying (Rajan & Wulf, 2006) and rule suspensions (March et al., 2000). However, these changes often encounter resistance from lower-tier managerial personnel, whose expertise and day-to-day work still centers on traditional administrative tasks associated with bureaucracy (Hales, 2002), and who are likely to have vested interests in established formal systems (Walsh & Dewar, 1987).

In sum, we can say that the institutional embeddedness of liberal and organizational professionals in relation to bureaucracy is not total, but is potentially weakened by instances of ambivalence and internal divisions within these expert groups. On balance, however, the interests that motivate (intentional or unintentional) bureaucracy maintenance appear to be stronger and more widely shared within these expert groups. In the absence of intervention from other expert groups who lack this institutional embeddedness in relation to bureaucracy, the opposition to bureaucracy from liberal and

organizational professionals is likely to have a negligible impact on bureaucratic persistence. Hence, if one wishes to analyze the institutional work that can lead to a major transformation of the bureaucratic form in a given field or even its extinction, one will need to look elsewhere.

The entrepreneurial professions. In his review Reed (1996) identifies a third expert group, which he calls ‘the new entrepreneurial professions’, and which comprises various ‘knowledge worker’ occupations like financial and business consultants, R&D engineers, and IT analysts. To this list may also be added securities analysis and portfolio managers, whose ‘professionalization project’ has started becoming increasingly successful from the 1960s onwards (Lounsbury & Crumley, 2007). Like the other expert groups, the entrepreneurial professions strive for widespread adoption of systems and practices that are grounded in their special expertise and depend on this expertise for their functioning. These systems and practices are often seen as entailing a radical break with the organizational systems and practices of the past, which are proclaimed to have been rendered obsolete by these ‘innovations’ (e.g. Child & McGrath, 2001). In building the normative and cognitive foundations for these practices (Lawrence & Suddaby, 2006), the entrepreneurial professions endeavor to articulate an alternative ‘vision’ or grand narrative of the ‘post-industrial’ socio-economic reality, and especially its implications for the organizations of the future, in which their expertise will have a major role to play.

Knowledge workers thus appear to be the chief actors advancing the institutional project of post-bureaucracy, not only because their own work tends to be organized into smaller project-based organizations, which are regarded by some as the paradigm example of post-bureaucracy (e.g., Clegg, 2007, but see Hodgson, 2004), but also because their expertise lacks historical ties to bureaucracy, and often centers around prescriptions of

alternative organizational designs. For instance, change programs like corporate downsizing advocated by business consultants (cf. Sorge & van Witteloostuijn, 2004) seem to rest on cognitive and normative foundations that directly challenge the bureaucratic form (e.g. Hammer, 1990). Downsizing and more market-like rather than bureaucratic controls are also legitimated based on the ‘shareholder value’ conception of control, promoted by institutional investors and stock analysts (Fligstein & Shin, 2007; Useem, 1996). Experts focusing on design and implementation of information technology in organizations also contribute to the undermining of the bureaucratic form, since such technology is assumed to substitute for hierarchical control (Dewett & Jones, 2001: 330).

Again, our claim is about the overall tendency of knowledge workers to promote post-bureaucracy, which leaves room for exceptions. Although the technologies implemented by IT specialists are often aimed at reducing the need for bureaucracy, they sometimes actually have the opposite effect of augmenting bureaucratic structures (e.g. Eriksson-Zetterquist, Lindberg, & Styhre, 2009). Likewise, some organizational innovations advocated by consultants, such as business process reengineering, “that are designed to move away from bureaucracy and hierarchy, may generate precisely these conditions” (McCabe, 2002: 506; see also Gill & Whittle, 1993). Nor are the organizations where consultants and other knowledge workers themselves work necessarily devoid of bureaucratic elements (Kärreman, Sveningsson, & Alvesson, 2002; Kärreman & Alvesson, 2004). These qualifications notwithstanding, we can still accept it as a premise that the strongest opposition to bureaucracy and advocacy of new organizational forms in today’s society is likely to come from business consultants, IT specialists, and other knowledge workers, who may in turn draw on the rhetoric and theorizations of post-bureaucracy propounded by certain management gurus and business scholars.

Proposition 2. Increased presence of entrepreneurial professionals in a field reduces the likelihood of bureaucratic persistence in that field.

2.4 Bureaucratic persistence paths

Having examined the different expert groups and their structural position in relation to the bureaucratic form, it is now possible to examine in greater detail how interaction between them affects whether and how bureaucracy will persist in a given field. As indicated earlier, bureaucratic persistence should not be seen as a monolithic phenomenon, but rather is likely to comprise multiple persistence trajectories or paths that are distinguished on the basis to what happens to the bureaucratic form. Three such paths are described below, which may be termed bureaucratic *entrenchment*, *hybridization*, and *infiltration*. Different institutional fields can exhibit different bureaucratic persistence paths, and multiple paths may sometimes be found within the same field. Attending to embedded agency of expert groups in the analysis of bureaucratic persistence helps to account for this variety in persistence trajectories.

2.4.1 Bureaucratic Entrenchment

Bureaucratic entrenchment starts with the historical presence of bureaucratic organizations in a field as the initial condition, and involves the reproduction of bureaucracy's levels of prevalence within the field over time, with little substantive change to the bureaucratic form itself. Fields meeting the initial conditions for this path will be those where the bureaucratic form had already been adopted by the vast majority of organizations during the period of industrialization (Perrow, 1991). The key question is what enables this form to persist in those fields. The arguments developed in this chapter suggest that

entrenchment depends on the ability of certain expert groups linked to bureaucratic organizations (e.g. managers, industrial engineers, personnel experts) to establish and maintain a social order that allows them to effectively resist the institutional project of post-bureaucracy and avoid or withstand direct competition from alternative organizational forms (Aldrich & Pfeffer, 1976). As Fligstein (2001: 117) points out, incumbent actors are often able to structure an existing field in way that gives them “a better chance of reproducing their advantage”.

Withstanding competition from post-bureaucracy is not very improbable in historically bureaucratized fields, at least if one is to believe simulation studies in population ecology showing that organizational populations that emerged at an earlier point in time and grew rapidly can be quite resilient in withstanding competition from populations of “structurally superior” organizations that emerge later on (Carroll & Harrison, 1994: 745). However, even when there is no threat of competitive exclusion of bureaucratic incumbents, entrenchment is not guaranteed, since there may be the possibility of gradual blending of the features of the two forms (Haveman & Rao, 2006). This may in turn pave the way to the de-institutionalization (Oliver, 1992) of pure bureaucracy, rather than its persistence along the entrenchment path. The blending of forms represents another path of bureaucratic persistence, which we call hybridization (see Haveman & Rao, 2006 for a definition of this term). The question of what explains the transition from entrenchment to hybridization (or lack thereof) is addressed in the next subsection.

Following the argument of the previous section, bureaucratic entrenchment can be assumed to depend first and foremost on the link between bureaucracy and dominant forms of expertise in the field. This link develops over time through the establishment of

enduring ties of the focal population of bureaucratic organizations with specific sources of expert labour or expert services, such as management education institutions, populations of professional service firms, and government agencies. This historical process of field structuration (DiMaggio & Powell, 1983) leads to the presence in the field of liberal and organizational professionals, whose expertise is tailored to bureaucracies (see Proposition 1 above). They will have an interest in ensuring that newly-founded organizations also make use of their expert services. In acting on this interest, these experts will (unintentionally) contribute to the bureaucratization of these organizations.

Furthermore, these experts will also have an interest in policing the field (Lawrence & Suddaby, 2006) and other forms of defensive institutional work (Maguire & Hardy, 2009) in order to prevent encroachment by other expert groups, such as the entrepreneurial professions. Since the latter are the main advocates of de-bureaucratization and post-bureaucracy (see Proposition 2 above), which requires their expertise to be implemented and legitimated, bureaucratic entrenchment can be expected to continue so long as the incumbent experts are successful in minimizing the impact of these new forms of expertise on organizational structure.

Proposition 3. Bureaucratic entrenchment is more likely to occur in fields where organizations have strong and enduring ties to liberal and organizational professionals, and where these expert groups are able to minimize the presence and influence of entrepreneurial professionals.

2.4.2 Bureaucratic Hybridization

The second persistence path, *bureaucratic hybridization*, involves piecemeal changes to the bureaucratic form in a given field. This persistence path is likely to occur through

attempts by bureaucracies to incorporate elements of other forms into their organizational structures, while still retaining the defining elements of the bureaucratic structure. For example, some bureaucracies responded to technical pressures for flexibility by implementing “extensive informal controls” and elements of team-based decision-making (Adler, Goldoftas, & Levine, 1999: 54). The resulting form has been characterized by scholars as an ‘enabling bureaucracy’ (Adler & Borys, 1996). Similarly, expressions like ‘soft bureaucracy’ (Courpasson, 2000) or ‘bureaucracy-lite’ (Hales, 2002) have been used to characterize the outcomes of bureaucracy’s transformation through “complex processes of hybridism” (Courpasson & Clegg, 2006: 319).

Like entrenchment, hybridization is most likely to occur in fields historically dominated by bureaucratic organizations. However, while the entrenchment scenario depends on either the absence of non-bureaucratic forms from the focal field, or at least a sharp segregation between bureaucratic and post-bureaucratic organizational forms (Haveman & Rao, 2006), hybridization, on the contrary, results from the process of blending between different forms (ibid.). Such blending becomes especially likely if experts associated with the post-bureaucratic form are able to theorize and frame the features of their form as being relevant to the field’s organizational and institutional problems in a way that convinces a sufficient number of actors from the more bureaucratically-embedded expert groups. Whether and how this happens depends on the social skills (Fligstein, 2001) of the non-embedded experts in framing that project in a way that takes account of embedded actors’ interests, as well as on the constraining or enabling structural conditions in the field (Archer, 1995). Advocates of post-bureaucracy may have to work either with or against these structural conditions.

Embedded organizational professionals are likely to defend their professional jurisdiction over organizational design against encroachment by other experts, and will therefore seek to maintain control over implementation of post-bureaucratic structural elements. Thus, organizational professionals may be willing to cooperate with advocates of post-bureaucracy, provided that this cooperation occurs on their terms. Such cooperation is likely to give rise to hybrid organizational structures, as organizational professionals and other expert groups cooperatively implement ‘post-bureaucratic’ features and practices, such as teams, project-based structures, delayered structures, internal markets, and information technology, without completely dismantling the older bureaucratic structures. However, if the organizational field is characterized by extensive institutional contradictions and mounting crises, then the organizational professionals with vested interests in the existing order are likely to find themselves in a weaker bargaining position vis-à-vis challenger groups. They will no longer be able to control the terms on which post-bureaucratic practices are implemented. We can therefore expect to see not merely hybridization, but genuine de-bureaucratization within those fields.

Proposition 4. Bureaucratic hybridization is more likely to occur in fields where organizations have strong and enduring ties to liberal and organizational professionals, and where organizational professionals retain control over implementation of organizational change programs advocated by entrepreneurial professionals.

2.4.3 Bureaucratic Infiltration

While the first two paths focus bureaucracy’s resistance to pressures that might favor alternative forms, the third persistence path, *bureaucratic infiltration*, is concerned with

bureaucracy's impact on those forms themselves. Although infiltration need not result in wholesale bureaucratization of those forms, it highlights the continued ability of the bureaucratic social order to leave its imprint on the forms that seek to challenge it (Stinchcombe, 1965). Also, unlike the previous two persistence paths, infiltration is much more likely to involve the breaking up of the bureaucratic configuration in favor of a partial dissemination of several of its constitutive elements. P²-form organizations (i.e., professional partnerships), for example, used to be staunchly non-bureaucratic organizations (Greenwood, Hinings, & Brown, 1990), but are presently adopting more and more bureaucratic features, particularly in the fields of law and accounting (Malhotra, Morris & Hinings, 2006). Similarly, case studies of knowledge-intensive firms illustrate the tendency of organizational professionals to fall back on bureaucratic practices and discourse in ostensibly post-bureaucratic contexts (Kärreman et al., 2002).

An important condition for infiltration in a field is the presence of institutional contradictions, crises, or uncertainties about the appropriate organizational form, which weaken the position of supporters and defenders of the established order and make some of the elite experts more open to experimenting with alternative institutional and organizational arrangements. For example, pressures for greater market competitiveness imposed by globalization and the deregulation of some liberal professional fields may come into tension with the established collegiate organizational forms (Malhotra, Morris, & Hinings, 2006). In the case of the accounting profession, a crisis precipitated by a number of high-profile corporate scandals provided an opportunity for 'policy entrepreneurs' (mostly former government officials) to implement emergency legislation entailing restrictive bureaucratic rules and guidelines for the accounting profession (Romano, 2005). In addition to these external pressures, increasingly formalized

stratification within the liberal professions implies a greater distance between the more managerial role of the professional elite and the day-to-day professional work of the 'rank-and-file' professionals (Freidson, 1984; Reed, 1996). In order to legitimate their role, elite liberal professionals may be willing to cooperate with organizational professionals and consultants, located at the intersection between professionalized and non-professionalized fields, in selectively implementing bureaucratic features like rules, specialization and standardization. This process is likely to contribute to bureaucratic persistence through infiltration.

Proposition 5. Bureaucratic infiltration is more likely to occur in fields where previously dominant (non-bureaucratic) organizational forms are becoming de-institutionalized, and where increasing numbers of experts draw on the expertise of organizational and entrepreneurial professionals in order to legitimate organizational change.

2.5 Discussion and conclusion

In this chapter we sought to address the question of why bureaucracy persists as an organizational form. This question is important for a number of reasons. First, as mentioned in the introduction, management scholars and organizational sociologists have often suggested that bureaucracy would come to be increasingly replaced by alternative organizational forms and advanced explanations for why this change was either already underway or could be expected to take place in the near future. Yet, the resilience of bureaucracy and the barriers to its predicted demise have received far less attention, despite Weber's (1978) early skepticism and Stinchcombe's (1965) important study of persistence of structural characteristics in organizational populations. We hope that this

chapter helps to correct this imbalance by framing the question of bureaucratic persistence more explicitly in the context of organizational institutionalism than has been done in the past (Meyer & Rowan, 1997; DiMaggio & Powell, 1983).

Second, we believe that organizational institutionalism can benefit from a stronger engagement with this question. Specifically, the topic of bureaucratic persistence not only fits well with the institutional scholars' concern with persistence or durability (e.g. Clemens & Cook, 1999; Zucker, 1977) and with the formal and public face of organizations (Meyer & Rowan, 1977), but it also poses a theoretical challenge when it comes to explaining the simultaneous continuity and change in the bureaucratic organizational form via hybridization (Courpasson & Clegg, 2006), and the emergence of some aspects of bureaucracy in ostensibly non-bureaucratic contexts (e.g. Kärreman et al., 2002). Third, a better understanding of the causes of bureaucratic persistence can inform policy that is concerned with institutional change and the diversity of organizational forms. In particular, it can enable policy makers and managers to better anticipate some of the barriers to radical changes in the structure of organizations that comprise a given organizational population.

In contrast to the familiar explanations that appeal either to the efficiency advantages of bureaucratic structures under certain technological, environmental and organizational conditions (e.g. Astley, 1985; Donaldson, 2001; Williamson, 1985) or to the collective perception of bureaucracy as a legitimate organizational form within the institutional environments of organizations (Meyer & Rowan, 1977; DiMaggio & Powell, 1983), we argued for an explanatory framework in which actors' interests, agency and political interactions are allowed to play a more central role (DiMaggio, 1988; Fligstein, 2001; Kim, Shin, Oh, & Jeong, 2007; Seo & Creed, 2002; Stryker, 2000). This theoretical

move helps to advance theories of bureaucracy and institutional persistence more broadly in several ways.

First, the actor-centered approach helps to put the classical institutional emphasis on legitimacy into broader perspective (DiMaggio & Powell, 1983; Tolbert & Zucker, 1983). While it is true that legitimacy, - especially in its ‘cognitive’ sense as taken-for-grantedness (Suchman, 1995), - can sometimes “prevent political mobilization around conflicts of interest and value” (Stryker, 2000: 187; see also Lukes, 1974) and therefore reduce the likelihood of interest-based contestation and institutional change, this scenario need not apply in all cases of institutional persistence. Some institutions may persist despite a certain level of contestation due to the institutional maintenance work of incumbent actors (Lawrence & Suddaby, 2006), which can involve active attempts to preserve, defend and repair the institution’s legitimacy (Maguire & Hardy, 2009; Suchman, 1995). To understand why actors are motivated to engage in such institutional work, it is necessary to examine their interests and structural position (Archer, 1995).

Second, the actor-centered approach advocated here illustrates how the same conceptual resources that have been developed for explaining institutional change (Fligstein, 2001; Seo & Creed, 2002) can also be used for explaining institutional durability and persistence (Clemens & Cook, 1999). The explanatory strategy is to trace higher-level institutional processes (notably, reproduction or transformation) back to the actions and interactions of specific groups of actors (Archer, 1995), and to identify the interests that motivate these actors to act in ways that (intentionally or unintentionally) contribute towards these higher-level processes. As illustrated by our argument, such interests may not necessarily pertain directly to the focal institution itself, but to other aspects of the social order that are indirectly linked to that institution and which account

for the actors' embeddedness. In the case of bureaucracy, we argued that actors are concerned with maintaining the demand for their expertise, while it is the use of certain kinds of expertise by organizations that leads to the reproduction of bureaucracy. Thus, in defending their jurisdictions against encroachment by other groups, actors also maintain the organizational structures that embody their expertise. When confronted with institutional projects that potentially threaten their position in technical and status hierarchies, actors exercise their agency so as to block these projects or at least contain the disruptive effects of these projects on their position (Clemens & Cook, 1999).

Third, the actor-centered approach provides a more differentiated account of bureaucratic persistence that can serve as the basis for comparative empirical research on the fate of bureaucracy in different organizational fields. Rather than asking how technological and institutional changes at the level of whole societies affects the bureaucratic form (e.g. Kallinikos, 2006; Olson, 2008), researchers can begin to explain differences in the extent of bureaucratic persistence in different fields, as well as their implications for the emergence of new organizational forms in those fields (Romanelli, 1991). To account for these differences, researchers would need to examine the historical conditions of a given field, such as the historical presence of different forms and their levels of legitimacy. Following the arguments of this chapter, they would also need to identify key expert groups in that field, their relation to bureaucracy and/or to other organizational forms, as well as their interests and resources (Fligstein, 2001). Finally, researchers would need to study how interactions between those actors contribute to the reproduction or transformation (Archer, 1995) of the bureaucratic form and its overall level of prevalence in a given field.

Thus, in order to add more flesh to the bones of this chapter's stylized

description of expert groups' role in bureaucratic persistence along different persistence paths, detailed historical studies of specific organizational fields would be needed. We encourage researchers studying organizational forms that are present in a given field to determine and report on the extent to which those forms exhibit bureaucratic features and to search for explanations for why bureaucratic forms become more or less prevalent over time. Of course, some of our arguments regarding the relation between different types of professional actors and bureaucratic persistence can also be tested using quantitative research designs. A recent study by Hwang and Powell (2009), who examined the relation between professional influence and organizational rationalization in the non-profit sector, provides a good model for such research. However, their measures of rationalization, which included the use of strategic planning, independent financial audits, and quantitative program evaluation, do not capture key dimensions of bureaucracy like administrative intensity and structural differentiation. Furthermore, studying bureaucratic persistence would require collection of longitudinal data.

2.5.1 Limitations and directions for future research

Naturally, we recognize that our argument is not without weaknesses, and that further work is required to extend, revise and bolster the argument. Ultimately, the extent of bureaucratic persistence is an empirical question. While we have not presented empirical evidence to support our premise that bureaucracy does persist in at least some fields, we cited some authors who have conducted empirical research in bureaucratic contexts and who seem to endorse this premise (e.g. Adler, 2010; Hales, 2002). Large-scale studies, like the National Organizations Study (Kalleberg et al., 1996) can help to quantify the extent of bureaucratization and to identify organizational fields, where bureaucracy continues to be

the dominant form. Even if bureaucratic persistence turns out to be a fairly rare and local phenomenon, trying to account for it can still be a worthwhile theoretical exercise, because it can provide insights into persistence of forms and institutions in general. Thus, bureaucratic persistence should not be seen as a topic for business historians, even though business history can certainly inform our thinking on this topic. Indeed, our focus on agency is consistent with some historical studies indicating that “individuals have a significant impact on bureaucratization” (Diehl-Taylor, 1997: 157).

While we have identified three generic paths of bureaucratic persistence based on common sense reasoning and on the literature, the stability of these paths remains an important issue for future research and debate. We acknowledge that these paths may turn out to be more transient phenomena than might appear from our discussion. In any event, it seems unlikely that these paths could continue indefinitely. The path of entrenchment can continue so long as either direct competition for resources between bureaucratic and post-bureaucratic organizations remains restricted, or the efficiency advantages of the post-bureaucratic form remain insufficient to completely eliminate its bureaucratic rival. Furthermore, the segregating mechanisms between the two forms must also be quite strong (Haveman & Rao, 2006), so that the majority of managerial and liberal professionals have no incentive to consent to the implementation of post-bureaucracy, otherwise entrenchment is likely to give way to hybridization. In practice, it seems unlikely that all three of these conditions will be satisfied in most bureaucratized fields today. Thus, the path of entrenchment may be more applicable to bureaucratic persistence in the first half of the 20th century, and less appropriate for describing the fate of bureaucracy at the turn of the century or in the future.

It seems that bureaucracy is more likely to persist via hybridization. However,

hybridization indicates that bureaucratic organizations are under considerable pressure to adopt some of the features of post-bureaucracy. By definition, this is likely to be difficult to do without de-bureaucratizing to some extent. Thus, there is a risk that hybrid forms will be short-lived, and would eventually give way to genuine post-bureaucratic organizations. The risk is increased by the fact that organizations changes required for hybridization can increase the hazard of organizational mortality in bureaucratic populations (Hannan & Freeman, 1984). Hybridization depends of the ability of embedded organizational and liberal professionals to maintain some degree of control over organizational structures and their interest in preserving bureaucratic features that are congruent with their knowledge base. However, it is possible that a new cohort of organizational professionals may emerge in the field that is less embedded in relation to bureaucracy and has a stronger affinity with the entrepreneurial professionals. In this case, there is a greater risk that the incumbent experts would lose control over organizational structure, and hybridization would give way to genuine de-bureaucratization.

Finally, with regard to infiltration, it remains to be seen whether the phenomena observed in the fields of law and accounting and in a few knowledge-intensive firms will generalize to other contexts. These doubts notwithstanding, we hope that the actor-centred institutional account of bureaucracy's persistence developed in this chapter can inform future empirical studies and debate about this phenomenon.

CHAPTER 3

RULES AS REMINDERS: Examining the formal side of organizational memory

Formal rules and rule-like documents like procedures and manuals play an important role in enabling organizations to preserve past information so as to improve future decision making. Nevertheless, the memory function of formalization and the factors that condition or determine the strength of this function remain weakly understood. In this chapter we take a closer look at the process side of formalization in order to identify some of these factors. Building on the definition of formalization as a process of codification and enforcement, we describe a set of interrelated activities involved in this process. We offer some research propositions in order to illustrate our broader argument that the ability of formal systems to serve as repositories of organizational memory depends on the different activities of the formalization process. The ideas developed in this chapter can inform future research on formal rules and organizational memory.

3.1 Introduction

Rules, standard procedures, manuals and other manifestations of organizational formalization are both a familiar feature of organizational life and a long-standing topic in management research. Formalization has been linked in the literature to a variety of important aspects of management and organization, including coordination, control, legitimation and cognition (cf. Vlaar, van den Bosch, & Volberda, 2007). Yet, formalization's relation to organizational memory, one of the central concepts in the organizational cognition and learning literatures (e.g. Argyris & Schön, 1978; Walsh, 1995; Walsh & Ungson, 1991), has not until now received sustained theoretical attention.

While the importance of embedding or ‘institutionalizing’ the lessons of organizational learning in formal structures so as to preserve them for the future has often been highlighted (e.g. Crossan, Lane, & White, 1999; Levitt & March, 1988), specific activities through which this is accomplished and their impact on information retention and retrieval have not been examined. Formalization’s role as a repository of organizational memory, defined as “stored information from an organization’s history that can be brought to bear on present decisions” (Walsh & Ungson, 1991: 61), deserves greater research attention, not least because it is often seen by policy makers, professionals, and managers as being a necessary and perhaps critical means of preventing future organizational errors, misconduct, and disasters (Vaughan, 1999).

In this chapter we, therefore, focus on formalization’s memory function, by which we mean the organization’s ability to preserve information in *formal* media like rulebooks and manuals and to retrieve this information at a later point in time. Specifically, our research question is: *What are the factors that condition formalization’s memory function?* Because dynamic processes, such as information acquisition, conservation, and retrieval play such an important role in organizational memory theory (e.g., Olivera, 2000; Stein & Zwass, 1995; Walsh & Ungson, 1991), a view of formalization as a static outcome is unlikely to shed much light on the factors that condition its memory function. Thus, answering our question requires examining the *process* side of formalization (Vlaar et al., 2006). Unfortunately, as noted by Kwon (2008: 1065), “research to date [...] has paid insufficient attention to aspects of the standardization process”, and the same observation, we suggest, also holds for formalization (but see Adler & Borys, 1996; Kieser & Koch, 2008; March, Schulz, & Zhou, 2000). Moving beyond the static view in this chapter, we sketch a framework for analyzing the process side of formalization and its impact on

formalization's memory function. In developing this framework, we draw on and integrate many extant insights scattered across multiple literatures on topics like learning, routines, rules, control, and high-reliability organizations. We also illustrate the theoretical fruitfulness of the process framework by offering several research propositions that relate the formalization process to formalization's memory function.

Our analysis of the relation between the process of formalization and memory contributes to both memory theory and bureaucracy theory. First, it advances *memory theory* by offering an in-depth theoretical treatment of *formal* repositories of organizational memory. While the existence of such repositories is already recognized in the memory literature (e.g. Levitt & March, 1988; Wilson, Goodman, & Cronin, 2007), *variation* in the ability of formal systems to function as memory has remained largely unexamined. The concept of memory function that we develop in this chapter, as well as the conditioning factors that we identify, can serve as the basis for future research into this important topic. Second, our analysis contributes towards addressing a key question in *bureaucracy theory* (Adler & Borys, 1996), namely the question of how rules actually *operate* in organizations (Reynaud, 2005: 849). In particular, we are the first scholars to provide a detailed overview of the process side of formalization from an organizational memory perspective. Given that preservation of memory has been cited as one of the defining characteristics of 'enabling' formalization (e.g. Adler & Borys, 1996: 69), our discussion of the factors that condition formalization's memory function also has relevance for research on this topic (e.g. Adler, 1999; Briscoe, 2007; DeHart-Davis, 2009).

Throughout the chapter, we shall make use of the example of safety rules in order to illustrate our arguments (e.g. Bruns, 2009), since the problem of retaining lessons from past experience is likely to be relevant for such rules (e.g. Lampel, 2006). However, most

of our arguments also generalize to other important rule domains in organizations (Schulz, 1998a), including corporate governance (Ocasio, 1999), prevention of corruption (Lehman & Ramanujam, 2009), orchestrating organizational communication (Heugens, van Riel, & van den Bosch, 2004), confidentiality and trade secret protection (Hannah, 2005), and technical workflow (Adler & Borys, 1996). The chapter is organized as follows. In the next section, we introduce the main concepts and ideas of organizational memory theory, including our focal idea that formalization can play an important role in the preservation of organizational memory. We also explain why neglect of the process side of formalization leads to a gap in our understanding of formalization's memory function. This is then followed by another major section, where we outline our process framework that includes codification and enforcement as the two generic sub-processes. In a third major section, we illustrate the fruitfulness of the framework by offering and discussing some research propositions. The remaining issues, including limitations of the analysis and suggestions for future research, are taken up in the discussion section, and a brief conclusion closes the chapter.

3.2 Theoretical background

3.2.1 Introducing Organizational Memory Theory

Organizational memory or the organizational means of preserving information is an intuitively appealing concept that plays a significant role in theories of organizational learning, improvisation, and decision making (e.g., Argyris & Schön, 1978; Cyert & March, 1992; Huber, 1991; Levitt & March, 1988; Moorman & Miner, 1997, 1998; Weick, 1979). One of the seminal contributions to the organizational memory literature was made

by Walsh and Ungson (1991), who not only synthesized the literature available to date, but also introduced many important new ideas and directions for future research (cf. Anderson & Sun, 2010). Notably, the authors sought to respond to concerns about the fallacy of anthropomorphism in organizational memory theory by proposing that organizations can “exhibit memory that is *similar in function* to the memory of individuals” (Walsh & Ungson 1991: 60, original emphasis). Defining the memory construct in terms of its function or causal “outputs or effects” entails no a priori assumptions about potential similarities or differences in the *constitution* of human and organizational memory (cf. Morgeson & Hofmann, 1999: 255), but merely suggests that organizations generally have *some* structures and processes capable of producing memory-like outcomes, such as information acquisition, storage, and retrieval (Walsh & Ungson 1991), which can be studied by researchers.

Walsh and Ungson (1991) also offered a typology of organizational ‘retention facilities’ or repositories of past information, which range from individuals to organizational structure and culture. Other authors proposed alternative typologies (e.g. Olivera, 2000), or have chosen to focus on a specific memory repository, such as organizational routines (Cohen & Bacdayan, 1994; Nelson & Winter, 1982), organizational stories (Boje, 1991), traditions of organizational culture (Cook & Yanow, 1993; Feldman & Feldman, 2006), transactive memory systems (Anand, Manz, & Glick, 1998; Brandon & Hollingshead, 2004; Wegner, 1987), and IT-enabled organizational memory (Huber, 1991; Stein & Zwass, 1995). One can also find some acknowledgement the importance of formalization in the memory literature. For instance, Nelson & Winter (1982: 99) wrote that their analysis of routines as organizational memory did “not deny that firms keep formal memories and that these formal memories play an important role”; Walsh and

Ungson (1991: 65, citations omitted) noted that “memory is preserved in a variety of procedures, rules, and formalized systems”; while March, Schulz and Zhou (2000: 21) stated that written rules “provide a depersonalized organizational memory, a storehouse of organizational knowledge”. However, despite these frequent passing references, the link between formalization and organizational memory has so far not been fully elaborated. In particular, research on formalization and memory can benefit from (i) introducing the concept of the *memory function* of formalization, such that variation in the strength of this function could be examined; and (ii) paying greater attention to the process side of formalization, which is likely to play a major role in conditioning its memory function.

3.2.2 Formalization’s Memory Function

Formalization can be defined as “the process of codifying and enforcing output and/or behaviour, and its outcomes in the form of contracts, rules and procedures” (Vlaar et al., 2007: 439, italics removed). While it is possible to see formal systems merely as another (separate) repository of memory available to organizations in addition to stories (Boje, 1991), databases (Huber, 1991), and routines (Nelson & Winter, 1982), this approach would fail to do justice to formalization’s ability to permeate these repositories and make a qualitative difference to their operation. In particular, formalization tends to imbue social objects with a quasi-legal status, contributing to their ‘durability’ and ‘reproducibility’ (Hasselbladh & Kallinikos, 2000: 710; see also Stinchcombe, 2001: 32). Indeed, the very language used in formal documents constructs the statements contained therein as explicit and authoritative (McPhee, 1985). We can expect there to be a recursive relationship between formal systems and other forms of organizational memory, in that information from individuals’ memories, routines, stories, and databases, for example, can be taken

into account in the development of formal systems (e.g. Lazaric & Denis, 2005), while at the same time the content of formal systems can obviously affect individuals' recollections, the topics and process of storytelling, and the status of information stored in databases. Furthermore, recent conceptualizations of organizational routines explicitly include artifacts, such as formal rules and technologies, as key components in the internal structure of such routines (Pentland & Feldman, 2005). Thus, the formal side of organizational memory deserves greater research attention.

The starting point in this endeavor should be an explicit recognition of the *memory function* of formalization or its ability to preserve information and enable its subsequent retrieval (compare: Vlaar and associates (2006) on formalization's 'sensemaking function'). Note that when speaking of the memory function of formalization, we do not mean that formalization is necessarily adaptive for organizations (cf. Morgeson & Hofmann, 1999). We simply mean that preservation of information from the past can be one of the *outcomes* or consequences of having written rules. While some rules may be intentionally *designed* by managers to retain certain information, this consequence of rulemaking often remains largely unacknowledged. Actors may simply take it for granted that whatever is written into a rule will be preserved, while everything that is left out may well be eventually forgotten. Formalization's memory function is likely to have practical importance in many organizational contexts. For instance, organizational safety rules and regulations are often developed and revised in light of organizational experience with safety-related incidents (e.g. Sullivan, 2010; Provera, Montefusco, Canato, 2010). Rule makers in such situations are likely to face the practical problem of designing and implementing formal systems that reflect the relevant information about past incidents, so as to prevent similar incidents from occurring in the future (Lampel, 2006).

At the very least, rules can be said to preserve instructions for action. For example, a safety rule might instruct actors to “[w]ear appropriate clothing in the laboratory when working with hazardous substances” (Bruns, 2009: 1409). This instruction is arguably more likely to be preserved by the organization if it is formally encoded in a written rule, than if it were to remain merely a verbal command. However, while it is true that all rules have a memory function in this sense, it is also true that individual rules and entire rule systems can vary in terms of the nature and amount of information that they preserve and, more broadly, in the *strength* of their memory function. Hence, it becomes crucial to specify the possible dimensions of this variation, which would also help to further clarify the meaning of the memory function construct.

Three dimensions of the memory function. Most of the contributions to the organizational memory literature identify at least three distinct phases or processes of memory. Although these are labeled differently by different authors, there is considerable overlap in how the phases are described. For instance, most authors agree that organizational memory should include the process through which information enters a given repository, variously termed ‘recording’ (Levitt & March, 1988), ‘encoding’ (Wegner, 1987), ‘acquisition’ (Stein & Zwass, 1995; Walsh & Ungson, 1991), or ‘collection’ (Olivera, 2000). Obviously, the information that has entered memory should be able to remain there for some time without decaying. This phase is generally termed ‘retention’ or ‘storage’ (Stein & Zwass, 1995; Walsh & Ungson, 1991; Wegner, 1987), although some authors also highlight a more active role of the organization in this process. Levitt & March (1988: 328), for example, used the term ‘conservation’ rather than storage in order to refer to “transfer of tradition” to new organizational members. Similarly, the typologies of Stein and Zwass (1995: 105) and Olivera (2000: 819) included the process of

memory ‘maintenance’, which is chiefly concerned with updating the stored information. Finally, all of the authors cited mention ‘retrieval’ as a crucial memory process. Retrieval depends on the ability of organizational members to access the relevant memory repositories (Olivera, 2000: 819) and involves the “reconstruction of the selected information to satisfy the user’s request” (Stein & Zwass, 1995: 106).

Although further processes could be added to this typology, including information filtering (Olivera, 2000), labeling or indexing (Olivera, 2000; Wegner, 1987), sharing (Wilson et al., 2007), search (Stein & Zwass, 1995), and forgetting (DeHolan & Phillips, 2004), most of them can be accommodated under the three basic processes of memory (Walsh & Ungson, 1991). Therefore, following Levitt and March’s (1988) classification and terminology², we identify recording, conservation and retrieval as the three phases of memory. We also define corresponding dimensions of formalization’s memory function. Specifically, we can stipulate *a priori* that the memory function of a formal rule system should be weaker when the information recoded in this system does not reflect organizational history. Similarly, conservation may be defined as referring to the extent of members’ familiarity with the organizational rule system (Hannah, 2005). Finally, for the ‘retrieval’ phase, we can assume that the memory function becomes weaker when the information stored in the rule system is not used in organizational decision making (Walsh & Ungson, 1991), which can happen when rules are routinely ignored and/or violated (Lehman & Ramanujam, 2009). We shall have more to say about these dimensions in the penultimate section of this chapter.

² The reason for this choice is that of all the contributions to the organizational memory literature, Levitt and March (1988) seem to be especially attentive to the formal side of such memory.

The challenge of linking formalization to organizational memory also encourages us to synthesize and further develop our ideas about the *process* of formalization (Vlaar et al., 2007), as opposed to focusing only on the process's outcomes, such as the number of written rules and procedures. Given the definition of the memory function outlined above, which focuses on the nature of recorded information and the extent of conservation and retrieval of this information as key dimensions, it becomes important to examine how recoding, conservation and retrieval actually take place in the case of formal systems. Although the literature on organizational rules and formalization has provided some scattered insights into the process of formalization (Adler & Borys, 1996; Kieser & Koch, 2008; March et al., 2000), it still lacks an overall framework that would provide an overview of the different types of activities involved. In the following section, we integrate the insights of this literature to sketch such a framework, with a special focus on those parts of the process that seem to us especially relevant for understanding formalization's memory function.

3.3 Unpacking the process of formalization

The process of formalization encompasses a rich and varied set of organizational activities, which are performed by a diverse set of organizational actors. To characterize these actors, we distinguish between two roles that people in organizations may assume: the rule-maker role and the rule-follower role. Rule makers are the ultimate legislative agents that have authority to develop and enforce formal organizational systems (March et al., 2000). Rule followers, in turn, are organizational members whose actions are governed by these systems. Although we treat the rule maker and rule follower roles as conceptually separable, they need not be divided over two separate groups of actors. We also allow for

the possibility that the actions of rule makers themselves are governed by rules (Kieser, Beck, & Tainio, 2001), which blurs the empirical lines separating both relational roles. Finally, for the sake of exposition, we also assume that the rule maker role encompasses the ‘rule enforcer’ role. Because this will obviously not always hold in practice, nothing in our argument will hinge on this assumption. The organizational implications of separation or overlap between these two roles are beyond the scope of this chapter, but may be an interesting topic for future research.

Following Vlaar and associates (2006: 1619; 2007: 439), the process of formalization can be seen as encompassing both codification *and* enforcement of output and/or behavior. Codification, in its broadest sense, refers to the “creation of messages” (Håkanson, 2007: 61; see also Cowan & Foray, 1997: 596). For the purposes of this chapter, we can define it as the development of an officially-recognized “written organizational document that usually specifies who should do what, when, and under which conditions” (Schulz, 1998a: 847). Examples of such documents include policies, regulations, guidelines, rules, standard procedures, contracts and manuals (cf. Vlaar et al., 2006; Zhou, 1993; Zollo & Winter, 2002). The generic term ‘rules’, which we use throughout of this chapter, should be understood as covering all documents of this kind. With regard to enforcement, our guiding assumption is that the process of formalization presupposes at least some efforts to ensure that the relevant parties recognize the documents produced through codification as being ‘in force’ (Vlaar, et al., 2007: 439), and are motivated to take those documents into account, as and when appropriate. Thus, we share Walsh and Dewar’s (1987: 219) intuition that “[l]ittle-used or long-forgotten regulations can hardly be considered ‘formal’ since few, if any, actors know that they exist or remember them”.

The distinction between codification and enforcement as two major sub-processes of formalization also fits well with Adler & Borys's (1996) treatment of the topic, who used equipment technology as an analogy. In particular, codification may be understood as referring to the process of *designing* the formal system and its specific components (i.e. rules), while enforcement is essentially a matter of *implementation* (Adler & Borys, 1996: 69). The activities that we treat as falling under the rubric of codification include, but are not limited to: crafting new rules, revising existing rules, eliminating obsolete rules, defining explicit sanctions and incentives, and reviewing different elements of the formal system in light of new organizational experiences (March et al., 2000). Enforcement activities, on the other hand, are aimed at the practical realization of the rule makers' espoused goals and intentions, and are more likely hinge on social interaction with rule followers, compared to codification. Examples include: monitoring compliance, imposing sanctions, and building, maintaining, and adjusting the cognitive and normative foundations for rules through the education and persuasion of rule followers (cf. Lawrence & Suddaby, 2006). We now proceed to examine the two formalization sub-processes in greater detail.

3.3.1 Codification

Formal systems and their constituent elements typically develop and change over extended periods of time. The literature on rule dynamics identifies rule births, revisions and suspensions as the main categories of events through which such development and change become manifest (March et al., 2000). Rule birth implies that the rule has been finalized and officially adopted by the organization (Schulz, 1998a; Sullivan, 2010). Introducing a

new body of rules³ into an organization obviously entails a high number of rule births. However, longitudinal research also shows that new organizational rules generally continue to be added to existing rulebooks over time (Beck & Kieser, 2003; Schulz, 1998a). Rule revision involves the official replacement of an existing rule with another version of the same rule (March et al., 2000; Schulz, 2003), while rule suspension occurs when a rule “is removed from the organization’s records and no successor version of the rule is put in place” (March et al., 2000: 84). Like rule births, rule revisions and suspensions can occur at various points in the history of a body of rules. If the codification process is understood as encompassing all three types of events, as we propose, then it also makes sense to think of codification as a series of *episodes*, where organizational rule makers come together to work on proposals for rule creation, revision and suspension, and to officially incorporate the finalized proposals into the rule system. As we explain below, such episodes usually draw on organizational experience, and involve a elements of articulation, sensemaking, problem-solving, and theorizing.

Experience articulation. One aspect of such codification episodes that seems especially relevant for memory theory is their link to organizational history and experience (Levitt & March, 1988; Schulz, 1998a). Zollo and Winter (2002) suggest that although organizations routinely accumulate experience through performance of organizational activities, such experience tends to remain largely tacit and unsystematic, unless it is deliberately articulated and codified. Codification efforts not only draw on previously articulated organizational experience, but can also induce further articulation, in which case codification and articulation become simultaneous processes (Håkanson, 2007). As

³ We use the terms ‘rule system’, ‘body of rules’ and ‘rulebook’ interchangeably in this paper.

Zollo and Winter (2002: 342) put it, “a group of individuals who are in the process of writing a manual or a set of written guidelines to improve the execution of a complex task [...] will most likely reach a significantly higher degree of understanding of what makes a certain process succeed or fail, compared to simply telling ‘war stories’ or discussing it in a debriefing session”. Thus, codification episodes enable organizations to draw explicit lessons from experience (March et al., 2000; Ocasio, 1999).

Sensemaking and problem-solving. Codification episodes are also closely related to organizational problem-solving (Schulz, 1998a) and sensemaking activities (Vlaar et al., 2006; Zollo & Winter, 2002: 342). In the words of March and colleagues (2000: 48), “[t]oday’s rules are often the solution to yesterday’s problems”. For example, in high-hazard industries, accidents and incidents often trigger rulemaking “in an attempt to prevent future accidents” (Haunschild & Sullivan, 2002: 639; Lampel, 2006; Sullivan, 2010). Accidents and incidents are extreme cases of ‘disruptive ambiguity’ that invariably induces retrospective sensemaking efforts (Weick, Sutcliffe, & Obstfeld, 2005: 413) like incident investigations and public inquiries (Carroll, 1995; Gephart, 1993). Such sensemaking draws on organizational records and collective recollections of the incident, its circumstances, and organizational experience with similar incidents in order to articulate a plausible story of what happened and why. Often, the incident becomes viewed as a ‘symptom’ of an underlying ‘problem’ (Carroll, 1995; Starbuck, 1983), while sensemaking develops into a search for a solution (Cyert & March, 1992), an answer to the question “now what?” (Weick, et al., 2005: 413). This is where problems can become linked to solutions in the form of proposals/recommendations (Sullivan, 2010), increasing the likelihood that “procedures and manuals [will be] amended on the basis of the investigation” (Provera et al., 2010: 1065). It is worth noting that sensemaking may not

only precede a codification episode, but also play an important role in the codification process itself. For example, in working on a proposed new rule, rule makers may come back retrospectively to certain experiences and attempt to resolve potential ambiguity of those experiences by developing categories and labels (Weick, et al., 2005), which may in turn become incorporated in the draft of the rule.

Theorizing. As noted by Greenwood, Suddaby and Hinings (2002: 60), new institutional practices must be ‘theorized’ by the relevant actors, where theorization is defined as “the development and specification of abstract categories and the elaboration of chains of cause and effect”. A similar process is likely to play out in codification episodes, which generally involve “an effort to understand the causal links between the decisions to be made and the performance outcomes to be expected” (Zollo & Winter, 2002: 342). From a sensemaking perspective, theorization can also be seen as “a search for meanings” or for an “emerging story” that “becomes more comprehensive, incorporates more of the observed data, and is more resilient in the face of criticism” as work on the new rule progresses (Weick et al., 2005: 415). As documented by Kieser and Koch (2008), a draft or prototype of a new organizational rule may be presented to specialists from different functional areas and amended several times in light of their suggestions, which not only helps to integrate specialized knowledge into the rule, but also gives the relevant actors an opportunity to develop plausible understandings about the future rule’s rationale and potential consequences. While those understandings will not be (or need to be) fully shared or identical (Feldman & Rafaeli, 2002), *equifinality* in understandings can facilitate the rule’s eventual formal adoption (Donnellon, Gray, & Bougon, 1986). In fact, purposely “keeping rules vague” (Kieser & Koch, 2008: 344) through strategic use of ambiguous

language can make it possible for the rule makers to ‘speak in a single voice’, which is often important for the rule’s legitimation (Eisenberg, 1984: 232).

Some authors (e.g. Adler & Borys, 1996) highlight the benefits of involving rule followers in theorization and formulation of procedures. Such involvement can increase the likelihood that the resulting rules will be consistent with rule followers’ own cognitive and normative understandings (Feldman & Rafaeli, 2002), which can be further articulated and strengthened during theorization (Lawrence & Suddaby, 2006). It can also enable rule followers to develop useful individual and collective memory contents (e.g. stories) about the theory or the ‘meta-ideas’ that led to the development of those rules (cf. Wilson, Goodman, & Cronin, 2007: 1049). For high levels of rule follower involvement in organizational formalization, the whole process may begin to resemble the ‘concertive control’ model, where self-managing teams are able to reach “consensus on key values” and codify and enforce their own rules themselves on the basis of such consensus (Wright & Barker, 2000: 348). Some authors (e.g. Lange, 2008: 725), however, caution against mixing elements of concertive control with bureaucratic approaches to formalization, arguing that the empowering ethos of concertive control could make employees less willing to defer to externally-imposed rules.

Based on this review, we can describe a stylized sequence of activities in a codification episode. The initial trigger for the episode will generally be a discrepancy between recent organizational experience and expectations of certain actors that starts to receive greater attention in the organization (Ocasio, 1997), becoming a topic of collective sensemaking (Weick et al., 2005). The initiation of such sensemaking, as well as the transition from sensemaking to codification proper, will often depend on active ‘issue selling’ on the part of the actors concerned (Dutton et al., 2001). The crucial moment

occurs when rule makers come to accept that a problem exists and that it can be resolved (at least in part) through codification or adjustment to rules. Theorizing about the problem's implications for rules (and vice versa) then commences, leading to new proposals for rule creation, change and suspension. These proposals may develop and remain on the rule makers' agendas over extended periods of time, possibly becoming 'attached' to new problems (Cohen, March, & Olsen, 1972). Gradually, the proposals will reach a greater degree of elaboration through negotiation and theorizing, while possibly also undergoing iterative adjustment in light of feedback from various experts or stakeholders (Kieser & Koch, 2008). Eventually, some proposals may be brought to fruition, with a new rule or rule version being officially issued, or an old rule officially declared null and void (in the case of rule suspension). Empirical research indicates that "urgency' from problems embedded in institutional pressures can push an organization" to finalize a rule proposal (Sullivan, 2010: 15).

3.3.2 Enforcement

While some authors wrote that the "process aspect of knowledge articulation and codification seems to have been neglected in the existing research" (Prencipe & Tell, 2001: 1377), this observation is perhaps even more applicable when it comes to the process of enforcement or implementation of formal/codified systems.⁴ In its narrow sense, enforcement focuses on "both the detection and the punishment of deviations from the operating rules" (Arrow, 1964: 398). In a broader sense, which is more relevant for our

4 This does not, of course, mean that enforcement is an alien concept when it comes to organization and management theory. It already figures prominently in an early contribution by Arrow (1964: 398, italics in the original), who wrote that the problem of organizational control "divides itself naturally into two parts: the choice of operating rules instructing the members of the organization how to act, and the choice of enforcement rules to persuade or compel them to act in accordance with the operating rules".

purposes, enforcement is about ensuring that the rules remain ‘in force’ (Vlaar et al., 2006) in the sense of being adhered to, as appropriate. The concept of enforcement is also closely related to that of organizational control, defined as “any process by which managers direct attention, motivate, and encourage organizational members to act in desired ways to meet the firm’s objectives” (Cardinal, 2001: 22). The only difference with enforcement, from our perspective, is that enforcement is specifically concerned with adherence to formal rules. The activities that we see as part of the enforcement process are described below.

Directing attention. The activity of directing attention, mentioned in the above definition, deserves greater emphasis in discussions of formalization and enforcement. Formal rules must obviously be promulgated, and organizations often take considerable pains to ensure that rule followers stay informed about recent rule births, revisions or suspensions (Kieser & Koch, 2008; March et al., 2000). Human attention is a scarce resource in organizations (Ocasio, 1997), and rule systems that are extensive, complex and/or frequently updated run the risk of exceeding rule followers’ attentional limits. As we discuss later in the chapter, directing rule followers’ attention to newly issued rules or rule versions can facilitate the development organizational memory *about* the rule system, retained in individuals’ memories (Walsh & Ungson, 1991), advice networks (Olivera, 2000) and organizational stories (Boje, 1991), which can reduce the amount of search required in order identify the rules that are relevant to a given situation. Of course, excessive reliance on such memory as a substitute for reading the actual rule books also has its drawbacks.

Educating. Another key activity in implementing formal systems, such as safety rules, is provision of education or training for rule followers is (e.g. Naveh, Katz-Navon, & Stern, 2005; Vaughan, 2005). Training sessions offer an additional opportunity to direct

rule followers' attention to formal rules, to increase their familiarity with those rules (Hannah, 2005)⁵, to clarify the rationale of the rules (Adler & Borys, 1996), to impart additional knowledge and skills necessary for applying or adhering to the rules, and to embed the rules more strongly in rule followers' routine practices (Lawrence & Suddaby, 2006). Clearly, such training can be especially important for novices or newcomers to the organization. However, as noted by Gherardi and Nicolini (2002: 193), formal ('classroom-like') training can easily fail to achieve any of these outcomes when it ignores the contextual, social and embodied nature of practice, with the result that "workers soon forget what they have learned [during safety training]". Moreover, the informal processes through which novices are socialized into the practice that is supposed to be governed by the rules can have a much stronger effect on rule adherence (or lack thereof), compared to formal training (Ibid.).

Monitoring and incentives. The segment of the enforcement process that has received by far the greatest attention in the literature is the development and implementation of monitoring, sanctioning, and reward mechanisms (e.g. Arrow, 1964; Heugens, 2005; Ouchi, 1979; Tyler & Blader, 2005). Because codification is an ongoing process, extra effort may be needed to ensure that newly issued rules or rule versions become connected to such mechanisms, while rules that have been suspended become disconnected. When theorizing and implementing rules, rule makers will need to take in account possible difference the *enforceability* of those rules, which is primarily a function of "opportunities for observation of violation" (Lehman & Ramanujam, 2009: 649). In

5 Interestingly, Hannah (2005: 71) found that employees' familiarity with trade secret protection procedures can have either a positive or a negative effect on their "felt obligations to protect trade secrets", depending on the type of procedure. He interpreted these non-uniform effects as suggesting that some (but not all) procedures may signal distrust on the part of employers, leading to a negative impact on employees' felt obligations.

some cases, it may be possible and desirable to complement weakly enforceable rules with “[p]hysical limits on employee action” (Lange, 2008: 716). This can be seen as an example of reinforcing the memory function of rules with ‘memory’ embodied in workplace technology and ecology (Walsh & Ungson, 1991). However, it is also a control strategy that can signal mistrust and provoke workarounds (Hannah, 2005; Lange, 2008). Alternatively, it may be possible to encourage deference to weakly enforceable rules by striving to increase their congruence with rule followers’ own normative understandings and internalized values (Lange, 2008; Tyler & Blader, 2005). This strategy corresponds to reinforcing the rule’s memory function by linking it more strongly to actors’ individual memories and organizational culture (Walsh & Ungson, 1991). For example, rule makers may attempt to mythologize the history of the older rules in order to preserve their normative underpinnings (Lawrence & Suddaby, 2006).

For rules that are more enforceable, monitoring compliance may take the form of periodic inspection or even continuous surveillance that is enabled by information technologies. For example, in her study of air traffic control, Vaughan (2005: 52) describes how computer systems automatically measure and record all violations of the ‘rules of separation’, which “define the amount of space that must exist between aircraft in the air and on the runway”. Responsibility for such a violation/error is initially assigned by default to an individual controller, and the incident is investigated. In some cases, the controller in question may have to undergo retraining or even face more severe sanctions. Of course, such a command-and-control approach to enforcement, even when it is technically feasible, can have downsides (Tyler & Blader, 2005). Moreover, rule makers must be open to the fact that systematic departures from rules are sometimes caused by flaws in rule design or inappropriateness of those rules to current conditions (Jackson &

Adams, 1979), indicating the need to search for new rules or rule versions (Adler & Borys, 1996; Desai, 2010). Due process, which refers to the existence of ‘appeal procedures’ for correcting possible shortcomings in rule design and resolving rule-related disputes, has been found to enhance a rule system’s effectiveness (Kwon, 2008: 1066).

Feedback, precedents and discretion. For new rules or rule versions, a trial period may be required that would involve “testing formulated rules in the ‘real world’, and waiting for problems to occur that necessitate modifications” (Kieser & Koch, 2008). During this trial period, rule makers might closely monitor early cases of rule application and their effects, and encourage rule followers to provide feedback on the rule (Adler & Borys, 1996). For new rules, critical cases of (mis)application are likely to arise early on, which help to clarify remaining ambiguities, resolve unforeseen conflicts with other rules, and establish *precedents* for future applications (Levitt & March, 1988; Reynaud, 2005). Also, after changes to the organizational rule regime (March et al., 2000), including the actors formally responsible for enforcement, early cases of enforcement are likely to shape rule followers’ expectations regarding the enforcement process (Gouldner, 1954), including the organization’s tolerance of violations, as well as willingness to allow exceptions. Sending contradictory messages about enforcement can be problematic in this regard.

Another key factor in the enforcement process is deciding when *not* to enforce the rules, but rather allow exceptions or more flexible interpretations (Brady, 1987; Kwon, 2008). Thus, “leaders may elect not to enforce the formal structure if they feel nonenforcement will facilitate task achievement” (Ford, 1981: 281, citations omitted). Organizations can have different procedures for making exceptions to codified rules, some of which may themselves be codified (Brady, 1987). In many contexts, departures from

operating rules may only be allowed after formal review and authorization from rule makers/enforcers. In some cases, however, rule followers are empowered to depart from certain procedures based on their own judgment rather than formal authorization (Adler & Borys, 1996). For example, Roberts, Stout, and Halpern (1994: 621) note that the US Navy has a rule to the effect that one should “never break a rule unless safety will be jeopardized by carrying out the rule”. Similarly, Provera, Montefusco and Canatoan (2010: 1067) report an interview with VP of a retail bank, who spoke of the organization’s struggle to “include the possibility of committing of an error into our standard operating procedures” so as to make them “self-correcting”.

Institutionalizing and deinstitutionalizing. Any analysis of enforcement needs to take the process of institutionalization and legitimation of rules into account (Schulz, 2003; Selznick, 1957; Tyler & Blader, 2005). Some perspectives on institutionalization actually suggest that highly-institutionalized rules will (almost by definition) be “relatively self-activating” and will therefore not require repeated “authoritative intervention” in order to ensure adherence (Jepperson, 1991: 145). Given that institutionalization is closely related to legitimacy (e.g. Meyer & Rowan, 1977), and given that the legitimacy of the process and outcomes of formalization in the eyes of rule followers affect their voluntary deference to rules (Tyler & Blader, 2005), the possibility of managing such legitimacy (Suchman, 1995) can make a major difference to the need for enforcement and the nature of the enforcement process (Lange, 2008; Tyler, 2004; Tyler & Blader, 2005).

Due process, responsiveness to feedback, and a balance between consistent enforcement and reasonable exceptions are all likely to have a positive effect on legitimacy (Kwon, 2008; Tyler, 2004). The activities of directing attention and educating can also be used as part of efforts to legitimate and institutionalize organizational rules, especially

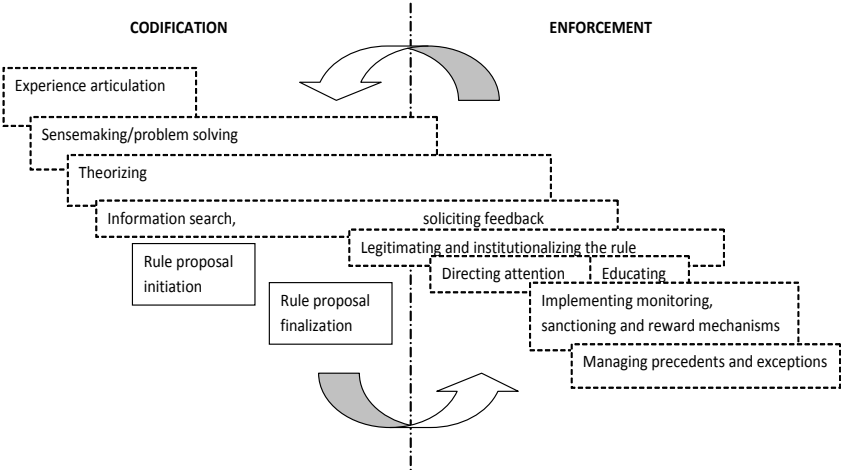
when these activities succeed in forging the connection between specific rules and rule followers' collective identities and their existing taken-for-granted practices (Lawrence & Suddaby, 2006)⁶. It should be noted, however, that a high degree of rule institutionalization is not always desirable and can pose special problems for enforcement of rule suspensions (or significant revisions). That is, there is a risk that some actors will continue to habitually follow an institutionalized rule, even after rule makers have officially suspended it, so that additional effort is required to deinstitutionalize that rule. In order to do so, rule makers might attempt to problematize the suspended rule by highlighting its adverse consequences for the organization and its possible inconsistencies with other taken-for-granted assumptions and practices. In some cases, the deeper beliefs that provided the institutional foundation for the suspended rule must themselves be undermined (Lawrence & Suddaby, 2006). Although this is quite difficult to accomplish, some strategies available to rule makers include supporting those rule followers who already espouse a new and contrary set of beliefs, and supporting contrary practices that can erode the original belief system.

To summarize this discussion so far, we can say that the main activities involved in the enforcement process are: directing attention, educating rule followers, implementing monitoring, sanctioning, and reward mechanisms, maintaining due process, soliciting feedback from rule followers, and managing precedents and exceptions. Two broader remarks can also be made. First, there is a close link between the enforcement process and the levels of legitimation and institutionalization of rules, rule systems and rule regimes. The enforcement activities listed above can contribute towards the reproduction or

⁶ One must be careful not to exaggerate rule makers' capacity to unilaterally influence the levels of rule institutionalization. Indeed, the scope for actors' agency in institutional processes is the subject of ongoing debate in institutional theory (e.g., Heugens & Lander, 2009).

transformation these social properties. Second, the process of codification can have major implications for enforcement, and vice versa. While we tried to maintain an analytic distinction between them, we acknowledge that codification and enforcement can overlap to some extent in practice. For instance, theorizing and soliciting feedback on a rule can continue both before and after that rule has been issued, while the problems encountered in enforcing rules can serve as input for further codification. **Figure 3.1** provides an overview of the formalization process.

Figure 3.1: Formalization process framework



3.4 Implications for formalization’s memory function

The more detailed overview of the formalization process developed in the previous section extends our understanding of formalization’s memory function and of organizational memory more broadly, by paying greater heed to the social roles and processes underlying the organizational capacity for developing, updating and using formalized memory. To illustrate the fruitfulness of the formalization process framework as a conceptual lens, we

show how it helps us understand the factors that condition the memory function of formal rule systems. Because the formalization process framework covers a large number of generic activities, and multiple variables could be defined to capture the relevant features of each activity, our discussion of the conditioning factors is not meant to be exhaustive. Rather, our aim is merely to provide some general observations and specific examples (in the form of theoretical propositions) of the ways in which the process side of formalization matters. We organize our discussion around Levitt and March's (1988) three phases of organizational memory, for which we have previously defined three corresponding dimensions of formalization's memory function.

3.4.1 Recording

The notion of memory necessarily implies a link to past history. The memory perspective on formal rules views such rules as repositories of lessons from past organizational experience, and specifically of solutions to organizational problems (Levitt & March, 1988; March et al., 2000; Ocasio, 1999; Schulz, 1998a). Thus, we can say that a rule or set of rules has a memory function only to the extent that this assumption holds for these rules, which need not always be the case. As noted by Lampel (2006: 343), organizational rulemaking does not always focus on past organizational experience, but may sometimes be much more influenced by "prudential concerns about hypothetical futures", leading to rules "without solid historical foundations". The memory function of such rules will be *prima facie* weaker, at least initially. Of course, this does not necessarily mean that prudential rulemaking should be avoided, since memory preservation is not the only function of formalization (nor is it always the most important one). Moreover, even if the rule deals with a wholly hypothetical scenario, rule makers can still draw on organizational

and industry experience of actual events that provide relevant analogies for the hypothetical scenario. Finally, the memory function of a prudential rule may be strengthened if the hypothetical scenario envisaged by rule makers actually transpires sometime after the rule's adoption, and the rule is revised to take the new information into account.

Besides prudential concerns, we should consider how other characteristics of the codification process that can be expected to affect the information that becomes recorded into a formal rule or set of rules. Recall that in our discussion of codification episodes, experience articulation and sensemaking activities were identified as important precursors to such episodes. There are many occasions that enable organizations to articulate and make sense of recent experience, including "collective discussions, debriefing sessions, and performance evaluation processes" (Zollo & Winter, 2002: 341). Although these occasions may themselves draw on various memory repositories, the process of articulation helps to further supplement, elaborate, integrate, reinterpret, filter or reorganize this information, thereby generating new memory contents. Examples of new memory generated through articulation include reports, minutes of meetings, stored electronic mail, but also new connections and understandings between actors (Feldman & Rafaeli, 2002), which imply a modified transactive memory system (Wegner, 1987). This modified memory becomes a potential source of information for rule makers.

Clearly, links to data sources are a crucial factor for the recording capability of any memory repository (e.g. Stein & Zwass, 1995: 104). Yet, it would obviously be impossible for rule makers to sift through all potentially relevant information from other organizational memory repositories (e.g. minutes of meetings, reports, databases, stories) during a codification episode (cf. Huber [1991] on information overload). Rule makers

must allocate scarce attentional resources between information search and other activities (Ocasio, 1997). If the rule makers have some very general information about past occasions for sensemaking or articulation (i.e. meetings, dialogues) that could be potentially relevant to a certain rule proposal, and are able to identify and contact some of the actors who participated in those processes, then this can simplify the search for information (Kieser & Koch, 2008). Taking this information into account during codification can contribute to the memory function of the resulting rules in at least two ways. First, it expands the sample of experiences for making inferences, resulting in rules that more fully reflect organizational history (March et al., 2000). Second, it minimizes potential inconsistencies between rules and other memory repositories, and thus reduces the likelihood that retrieval of formal memory will be inhibited by these inconsistencies.

Proposition 1. Formalization's memory function will be stronger when the rule makers attend to articulation and sensemaking episodes in the organization and have the means of locating and contacting the actors, who participated in those episodes.

3.4.2 Conservation

Organizations with extensive rule systems face the practical challenge of ensuring that organizational members are aware of the existence of the various rules and are more or less familiar with their content. Familiarity (Hannah, 2005) is important for the memory function of a formal rule system, because it indicates the presence 'meta-memory' or organizational memory *about* the rule system (Wegner, 1987: 187). If the organization fails to develop and conserve such meta-memory, then retrieval of appropriate information from the rule system in a given situation becomes much less likely. Thus, even though

conservation of the formal rule system itself can usually be taken for granted (since the text of the rules is encoded in durable media), conservation of rule-related meta-memory is likely to be a serious challenge, especially under conditions of high turnover.

An important portion of such meta-memory is developed by actors (mainly rule makers) as a by-product of participating in codification episodes. However, in most organizations, rule follower involvement in codification episodes tends to be low, so additional effort will be required to ensure that rule followers develop their own meta-memory, which usually takes time and cannot be assumed to happen automatically. Novice rule followers need to have both incentives and opportunities to familiarize themselves with the rule system. With regard to opportunities, a lot will hinge on the activity of directing attention, which we highlighted in our discussion of enforcement. Attention is likely to be directed to rules when rules are a salient topic in day-to-day organizational communication. In particular, managerial personnel responsible for setting performance targets can place more or less emphasis on the need to comply with certain organizational rules (or refer to certain manuals) in task performance. A similar argument is made by (Naveh, Katz-Navon, & Stern, 2005: 951), who hypothesized that the presence of “suitable” safety procedures will be more likely to lead to reduced errors when managers’ practices are “perceived as emphasizing safety”.

The role of education activities, such as vocational training, as a means of directing rule followers’ attention to rules and facilitating the conservation of rule-related meta-memory, have already been noted. However, these effects of rule-related training may soon fade, unless they are reinforced by more informal socialization practices that also emphasize rules (Gherardi & Nicolini, 2002). Moreover, education and managerial communication may have no effect or even provoke a cynical response from rule followers

(Dean, Brandes, & Dharwadkar, 1998) when the organizational rule system lacks legitimacy (Tyler, 2004). A similar point is made by Naveh and associates (2005: 951), but using the notion of procedure ‘suitability’ rather than legitimacy. We therefore offer the following proposition.

Proposition 2. Attention to formalization in organizational training programs and day-to-day managerial communication will have a positive effect on formalization’s memory function, provided that the formal rule system has a minimum level of legitimacy.

3.4.3 Retrieval

Since most rule systems are associated with some form monitoring and sanctioning mechanisms, it is worth considering the implications of these mechanisms for the memory function of those rule systems. Clearly, in many cases organizational rule makers might have reasons to anticipate both that non-adherence to certain rules would have disastrous consequences for the organization, and that (at least some) rule followers will have a preference for non-adherence due to, for example, the time consuming nature of requirements imposed by the rules. In these cases, rule makers will most likely opt for monitoring and sanctions as a means of ensuring retrieval of formal memory. However, as Tyler and Blader (2005: 1144) point out, “[f]or sanctions and deterrence systems to work, organizations must be able (and willing) to devote considerable resources to the surveillance needed to make detection of rule breaking sufficiently likely that people are deterred”. Assuming that this is possible, implementing such systems can indeed motivate rule followers to pay closer attention to organizational rules, and to be more proactive in striving to minimize errors in rule application by, for example, asking rule makers for

further clarification. Indeed, coercive systems imply a lower tolerance of errors in rule application (Adler & Borys, 1996), since any deviation from a rule is likely to be treated as a potential rule violation, unless can be proven otherwise (Vaughan, 2005). This reasoning suggests that the use of monitoring and sanctions can enhance the memory function of rules by stimulating retrieval and resolution of ambiguity.

Memory retrieval also depends on the level of rule institutionalization. As discussed earlier, rule institutionalization implies that rule adherence becomes more or less automatic, and therefore less contingent on situational variation in the costs and benefits of adherence. This bears some affinity to the notion of ‘automatic’ (as opposed to ‘controlled’) memory retrieval in the memory literature (Walsh & Ungson, 1991). A rule system characterized by high levels of institutionalization should have a stronger memory function, simply because rule adherence (and therefore retrieval) has become more routinized for such a system. Moreover, institutionalization should also help to ensure that retrieval of formal memory is maintained in the long term, and not merely in the period when rule makers/enforcers are especially attentive to it. Yet the use of sanctions (especially ‘hard’ ones like withholding expected rewards, status degradation, and legal liability) is not always conducive to institutionalization and may even work against it by diverting rule followers’ attention towards avoiding punishment and away from the more substantive value-based reasons for adherence (Lange, 2008: 725; Tyler, 2004). Thus, the increased salience of purely instrumental concerns associated with sanctions makes it less likely that the rule system will become ‘infused with value’ (Selznick, 1957).

A further drawback of monitoring and sanctions in relation to the memory function becomes apparent if we consider the whole memory process rather than merely memory retrieval, and specifically the feedback effect of enforcement on future

codification efforts. As empirical research conducted by Tamuz (2001: 299) in the air transportation industry shows, “the use of incentives necessary for rule enforcement creates disincentives for reporting potential dangers and constrains how data about these events are classified and stored”. Thus, fear of sanctions can prevent rule followers from reporting errors in rule application or deviations of observed situations from the ‘theory’ implicit in the rule (that cannot be detected via monitoring), which can severely limit the pool of organizational experience available to rule makers during subsequent codification episodes and lead to systematic biases in the information encoded into the rule system (Levitt & March, 1988; March et al., 2000). Thus, by severing the link between rules and at least some of the potentially relevant organizational history, these enforcement mechanisms clearly undermine formalization’s memory function in the long term.

Proposition 3. The use of monitoring and sanctions in enforcement will have a positive effect on formalization’s memory function in the short term, but a negative effect in the long term.

The negative long-term effect may be weaker for softer sanctions, such as negative supervisor evaluations and retraining. In fact, soft sanctions, coupled with extensive monitoring, may well contribute to the durable institutionalization of rules, provided that these elements are used as part of a broader disciplinary power process, which would ensure that these “external pressures” are eventually “internalized” by rule followers, becoming a routine feature of their work (Lawrence, Winn, & Jennings, 2001: 636-637). This in turn requires an enforcement process capable of shaping not only rule followers rule-related experience, but also their understanding of this experience and even their very identities through mechanisms like training, socialization and teamwork

(Lawrence, Mauws, Dyck, & Kleysen, 2005: 187-188). For instance, the concertive control approach to formalization, referenced earlier, where rule followers are allowed to formulate and codify their own rules based on agreed-on group norms, can come to constitute a disciplinary system that incorporates ‘horizontal’ peer surveillance and behavior correction as part of the very process of teamwork and socialization (Sewell, 1998).

3.5 Discussion and conclusion

Our aim in this chapter has been to analyze organizational formalization as *process* (rather than a fixed outcome) from an organizational memory perspective in order to advance our understanding of the implications of this process for formalization’s memory function. We offered a framework that provides an overview of the main activities involved in the formalization process and a rough classification of these activities into two broader analytical categories, namely codification and enforcement. Although the subdivision of the formalization process into codification and enforcement is borrowed from previous research (Adler & Borys, 1996; Vlaar, 2007; 2008), our framework constitutes one of the most comprehensive accounts of codification and enforcement available to date, while also highlighting the need to examine these sub-processes *together* due to potential interrelations and overlap between them. The framework draws on a variety of disparate literatures, ranging from organizational learning (e.g. Zollo & Winter, 2002; Schulz, 1998a) and high reliability organizing (Vaughan, 2005), to institutional theory (Lawrence & Suddaby, 2006) and organizational control (Lange, 2008), paving the way for closer integration between these literatures around the topic of formal rules. To illustrate the framework’s usefulness for understanding the antecedents of formalization’s memory

function, we have selected a number of themes from the framework and developed propositions relating those themes to the memory function of formalization. Examples of themes that we considered include rule makers' attention to articulation and sensemaking, the activities of directing attention and educating, applying and the effects of sanctions.

3.5.1 Theoretical and Research Implications

The dual focus on formalization as a process and formalization's memory function has several theoretical implications that are worth highlighting. First, it encourages us to go beyond the truism that rules codify and preserve information from an organization's past, and to specify more precisely what we actually mean when we attribute a memory function to formalization. In this chapter, we distinguished between three dimensions of this function, which must both be taken into account in assessing it, namely the extent to which rules are actually based on past organizational experience (recording), the extent of rule followers familiarity with these rules (conservation), and the extent to which rule followers actually retrieve information encoded in those rules (retrieval). Of course, more work is needed to further refine, supplement, and operationalize these dimensions. Developing a robust conceptualization of the memory function can be important for advancing research on 'enabling' formalization (e.g. Adler & Borys, 1996; Adler, 1999; Briscoe, 2007; DeHart-Davis, 2009), since a strong memory function has been cited as one of the defining characteristics of such formalization (e.g. Adler & Borys, 1996: 69). However, as far as we know, none of the published literature that references rules (or formalization) as a form of organizational memory contains an explicit discussion of potential *variation* in the strength

of the memory function, either at rule system level, or at the level of individual rules.⁷ The dimensions that we identified highlight the need to take such variation into account in future work on the topic. Future research might also use these dimensions to assess the memory function of other potential memory repositories in organizations besides formal rule systems, such as various kinds of electronic databases and even advice networks (Olivera, 2000).

Second, the proposed formalization process framework contributes to perspectives on organizational learning that emphasize ‘institutionalization’ as a crucial step in the learning cycle that “sets organizational learning apart from individual or ad hoc group learning” (Crossan et al., 1999: 529). According to these perspectives, institutionalization implies that “learning is embedded in the systems, structures, strategy, routines, prescribed practices of the organization, and investments in information systems and infrastructure” (ibid.). Some authors have also employed the term ‘organizational capital’ to refer to “institutionalized knowledge and codified experience stored in databases, routines, patents, manuals, structures, and the like” (Youndt, Subramaniam, & Snell, 2004: 338). Although formal rules (including procedures and manuals) constitute merely one item among many on these lists of organizational elements in which learning/knowledge may be embedded, they are frequently cited as examples (e.g. Crossan et al., 1999: 531).

Our process framework complements these approaches and suggests that activities like interpreting and integrating organizational experience not only precede institutionalization (Crossan et al., 1999), but may actually be stimulated by the very effort

7 A possible exception is the work of March, Schulz and Zhou (2000), who suggested that a rule’s age might be a proxy for the amount of knowledge stored in the rule (see also Schulz, 2003).

to codify and institutionalize experience via rulemaking. It also points to the fact that not all attempts to embed the lessons of organizational learning in durable artefacts like written rules will succeed in ‘institutionalizing’ these lessons in the sociological sense of the term (e.g. Zucker, 1977)⁸. Most importantly, our framework and propositions highlight the role of enforcement in enabling the retrieval of learning. Issues of enforcement and control are still sometimes overlooked in extant discussions of codification (Cowan & Foray, 1997; Zollo & Winter, 2002; but see Lazaric & Denis, 2005; Prencipe & Tell, 2001) and institutionalization of knowledge or learning (Crossan et al., 1999; Youndt et al., 2004; but see Lanzara & Partiotto, 2007; Lawrence et al., 2005). We have suggested, however, that enforcement activities play a key role in maintaining or altering the levels of legitimacy and institutionalization of rules (Lawrence & Suddaby, 2006).

3.5.2 Limitations of Analysis and Topics for Future Research

Before we discuss the more substantive limitations of our work, it seems appropriate to make a couple of remarks about its similarities to (and differences from) research by Paul Vlaar and associates on formalization and sensemaking (Vlaar et al., 2006; 2007). We must admit that their work has been a source of inspiration and a model for our approach to formalization’s memory function. Vlaar and associates argued that “participants in interorganizational relationships use formalization as a means to make sense of their partners, the interorganizational relationships in which they are engaged and the contexts in which these are embedded so as to diminish problems of understanding” (Vlaar et al.,

⁸ Some of the authors discussing ‘institutionalization’ of knowledge or lessons of organizational learning have already been explicit on this point. For example, Lanzara and Partiotto (2007: 637) distinguish between the process through which “ideas, intentions and haphazard modes of action gradually become embedded in durable artifacts and stable structures of signification” and the process of actual institutionalization of these structures through which they become taken for granted.

2006: 1617). They further identified a number of mechanisms, through which formalization facilitates sensemaking. Like these authors, we are basically interested in the link between formalization and organizational cognition and learning (Vlaar, et al.: 2007: 444). However, whereas these authors focus on sensemaking and coping with problems of understanding, we focus on organizational memory, and especially on retention and retrieval of lessons from organizational experience. While the information retrieved from formalization can certainly help actors to cope with problems of understanding, it can also help in reducing errors and safety risks (e.g. Bruns, 2009; Naveh et al., 2005) or in speeding up and legitimating organizational decision making (e.g. Ocasio, 1999; Walsh & Ungson, 1991).

Admittedly, Vlaar and associates do discuss reduction of biases and judgment errors as one of the mechanisms through which formalization facilitates sensemaking (2007: 1626), but they do not link these outcomes to the notions of organizational memory, experience or information retention. They did mention the memory concept briefly in the second paper, where one of their findings was that formalization “functioned, among others, as a memory device, reducing the vulnerability of the alliance to personnel turnover and fallible memories” (Vlaar et al., 2007: 451). Unfortunately, they did not elaborate further on the nature of this memory function or its antecedents. With regard to information, they argued that “[f]ormalization also raises the likelihood that relevant information is considered and treated properly” (Vlaar et al., 2006: 1626). Our work complements this argument, but goes a step further by emphasizing that much of the ‘relevant information’ will itself be codified and preserved in formal rule systems.

While the notion of formalization as a process is already referenced by Vlaar and associates (2006; 2007), we develop this notion much further than has been done in

previous research. Naturally, there are a couple of places where our formalization framework overlaps with these authors' discussion of sensemaking mechanisms. For example, the link between formalization and articulation figures prominently in both frameworks (see also Zollo & Winter, 2002). Both frameworks also mention the notion of attention, but treat it quite differently. While we agree with Vlaar and associates' (2006: 1623) argument that formalization can act as a 'focusing device', our emphasis is more on whether or not attention is directed towards formalization *itself*. If actors routinely neglect to attend to the content of rules, then benefits of formalization discussed by Vlaar and associates (2007) are unlikely to materialize. More broadly, the notion of enforcement that these authors rightly identify as important receives a much more detailed treatment in our work. In the end, this chapter represents an example of cumulative theory building, where brief suggestions from earlier work are assimilated, integrated and taken in new directions.

A comparison with the work of Vlaar and associates also suggests a couple of directions for future research. First, the relation between organizational memory and sensemaking needs to be further clarified. We suggested that incident-related sensemaking can become a precursor to changes in organizational memory (via codification), and that the very process of updating organizational memory often induces further sensemaking. Future research might focus more on the retrieval side of memory and investigate how sensemaking is affected by retrieval of information from formalization and other memory repositories. Second, Vlaar and associates (2006; 2007) focused on formalization in an *interorganizational* context, while most of our arguments implicitly assumed a single organization. Future research may consider extending our analysis to an interorganizational context, which is likely to require some modifications to our framework, such as for

example, considering interactions between two or more groups of rule makers and rule followers from different organizations.

Naturally, we hope that our framework and propositions will be taken up in future *empirical* work. Therefore, it may be worthwhile to offer some suggestions with regards to operationalizing our the concept of memory function. Because memory function is multidimensional and these dimensions need not be strongly correlated, researchers should ideally develop operationalizations for each dimension. To assess preservation of history, researchers may develop psychometric scales and ask rule makers to rate the extent to which they considered and incorporated information related to the organization's past into its rules. However, this operationalization has many limitations, such as recollection bias and the practical impossibility of identifying and contacting the rule makers that drafted certain very old rules in the rule system.

An alternative or complementary approach would be using historical methods to reconstruct the rule system's history based on documentary evidence about various codification episodes and to rate the extent to which the resulting rules reflect the historical information. For conservation, the work of Hannah (2005) suggests ways of measuring rule followers' familiarity with a given set of rules. Finally, for retrieval, researchers might adapt Tyler and Blader's (2005) methodology to measure rule adherence, but also include items measuring the extent to which rule followers perceive rules as clear or ambiguous, and informative or uninformative. Examining the memory function of formalization and the factors that condition it can help organizations develop formal structures that are less impervious to organizational learning, so as to make repetition of past organizational mistakes and shortcomings less likely in the future.

CHAPTER 4

ORGANIZATIONAL LEARNING THROUGH PROBLEM ABSORPTION: A processual view

In organizations, existing codified rules are often used as the basis for solving new problems even when this means stretching those rules. Such ‘absorption’ of new problems by rules reduces the need to explore and develop new solutions and to encode those solutions into new rules. In this chapter we examine the phenomenon of ‘problem absorption’ more closely from the process perspective and conceptualize it as a micro-level form of ‘semantic learning’. Contrary to previous literature, we argue that problem absorption does not necessarily reinforce existing rules and prevent the search for alternatives. We thus contribute to the literature on organizational learning and rule dynamics by showing how under certain conditions the cumulative effects of semantic learning via repeated absorption of novel problems by formal rules can give rise to higher-level learning that has the potential to transform the organization’s rule system.

4.1 Introduction

Organizational learning is often conceptualized as a process by which organizations develop rules, procedures and routines for solving recurring organizational problems (Cyert & March, 1992; Levitt & March, 1988; Nelson & Winter, 1982; Schulz, 1998a; Weick, 1991). Over time, a repertory of ‘tried-and-tested’ solutions is built up in organizational memory (Walsh & Ungson, 1991), and, insofar as these can be used to deal with or ‘absorb’ new problems, the perceived need to search for alternative solutions is reduced (Levitt & March, 1988). In the literature on the dynamics of organizational rule systems in particular (March, Schulz, & Zhou, 2000), this notion of ‘problem absorption’

has been used to explain why the availability of codified and prescribed solutions to problems in the form of written rules tends to reduce the impetus for further learning and codification efforts (Schulz, 1998a).

In this chapter we examine the phenomenon of ‘problem absorption’ more closely from the process perspective (e.g., Tsoukas & Chia, 2002), arguing that it need not always imply the absence of organizational learning. On the contrary, we suggest that insofar as it involves the ongoing construction and reconstruction of the very meaning of those rules in practice and calls for *reflexivity* on the part of the actors concerned (e.g., Antonacopoulou & Tsoukas, 2002; Archer, 2003), problem absorption may actually constitute a form of organizational learning in its own right. Furthermore, while extant literature on problem absorption suggests that “[s]tretching old rules to deal with new problems reinforces the old rules” (Schulz, 1998a: 853), we propose that such stretching can actually undermine those rules under certain conditions and thereby trigger higher-level organizational learning (Fiol & Lyles, 1985).

The intended contribution of this chapter is twofold. First, although the idea that rules absorb problems has already been introduced and briefly discussed in the literature on rules (Schulz, 1998a; March, Schulz, & Zhou, 2000), the concept of problem absorption remains underdeveloped. Our analysis helps to address this gap by reconceptualizing problem absorption as a reflexive process and integrating the concept more strongly with other literature that deals with related phenomena (Corley & Gioia, 2003; Tsoukas & Chia, 2002). Understanding problem absorption by rules is important for organization theory not only because such absorption constitutes a mechanism that limits bureaucratic growth (Schulz, 1998a), but also because, as we argue in this chapter, problem absorption can be a source of both lower and higher-level organizational learning. Thus, our second

contribution is to challenge views that associate problem absorption with only lower-level learning (March, Schulz, & Zhou, 2000) or codification traps (Schulz, 1998a), by showing how the process of repeated and cumulative problem absorption can induce higher-level learning and thus release the organization from the codification trap. Our arguments suggest opportunities for advancing research on organizational learning through closer attention to learning in bureaucratic contexts.

Building on previous literature, we conceptualize problem absorption as involving reflexive extension of a rule's labelled categories to cases that are markedly different from the prototypical members of those categories (Tsoukas & Chia, 2002), which allows practitioners to maintain the pattern of practice and a sense of order in the face of ambiguity and situational variation. We further argue that problem absorption is a form of 'semantic learning' or learning on the basis of meanings that emerges in a subtle and largely unintentional way from organizational members' practical coping (Corley & Gioia, 2003). When rules are extended to new cases repeatedly, semantic learning can become cumulative due to retention of precedents and new understandings in organizational memory (Walsh & Ungson, 1991). We suggest that it can have certain destabilizing effects on the relevant rule or rules and the broader understandings that underpin those rules and support their use in practice (Schatzki, 2006). Rule makers' recognition of these effects through reflection can lead to higher-level organizational learning, unlearning (Tsang & Zahra, 2008), and codification.

4.2 Theoretical background

4.2.1 Problem Absorption and Rule Dynamics

The notion of problem absorption, as developed in the literature on rule dynamics (Schulz, 1998a; March, Schulz, & Zhou, 2000), has its roots in the ‘Carnegie School’ research program, with its emphasis on the relationship between “human problem-solving processes” under bounded rationality and “the basic features of organization structure” (March & Simon, 1993: 190). According to this perspective, problem definitions, for example, do not constitute complete or fully accurate representations of all aspects of a problem, but rather simplified models that tend to be constructed already in light of potentially available solutions (March & Simon, 1993; Starbuck, 1983). Furthermore, many solutions, having once been developed through the process of search, become learned responses that can subsequently be routinely applied to similar situations, reducing the search process to the task of matching problems to solutions, and vice versa (Cohen, March, & Olsen, 1972; March & Simon, 1993; Levitt & March, 1988). Thus, an organization gradually accumulates a repertory of decision rules, procedures and routines for dealing with recurring problems (Cyert & March, 1992; Nelson & Winter, 1982).

The rule dynamics research builds on these ideas, arguing that “[t]oday’s rules are often the solution to yesterday’s problems” (March, Schulz, & Zhou, 2000: 48). The recognition or ‘social construction’ of problems is sporadic and depends strongly on the allocation of organizational attention to different organizational task domains when performance in those domains falls below aspiration levels (March, Schulz, & Zhou, 2000: 63; see also Cyert & March, 1992; Zhou, 1993). Once a solution to a problem situation has

been encoded in a written rule, it is assumed that the rule can also help organizational members to deal with future problems “in a routine way”, making such problems “less available for further rule production” (March, Schulz, & Zhou, 2000: 65). This is what is meant by *problem absorption*.

Schulz (1998a) identified two problem absorption mechanisms. The first of these, which he called *preemption*, has to do with the reluctance of rule makers to develop new rule-based solutions to a problem when a rule-based solution to the same problem already exists, because doing so could lead to inconsistencies between rules. The second mechanism involves a so-called *codification trap* stemming from the tendency of rule users to “stretch established rules to cope with new problems”, which “reinforces the old rules and keeps experience with alternatives inadequate to make them rewarding to use” (Schulz, 1998a: 853; see also Levitt & March, 1988). Schulz found indirect empirical support for problem absorption in the tendency for the rate of birth of new rules to decline as the total number of rules in a given domain grew larger. He also found that the rule birth rate increased when other rules were suspended, suggesting that such suspensions allowed problems that had previously been ‘absorbed’ to be ‘released’ and ‘recycled’ into new rules (Schulz, 1998a: 855).

In another study, Beck and Kieser (2003) attempted to extend the problem absorption argument to rule revisions, but could not find support for the hypothesis that rates of revision would decline with rule volume. March, Schulz, and Zhou (2000: 58) have suggested that rules are revised primarily in order to enhance their capacity to absorb new problems, describing this ‘refinement’ process “as a case of learning by rules”. Rule revision is also seen as a process through which experiences accumulated through rule use

become formally incorporated into the rule (March, Schulz, & Zhou, 2000: 76; see also Beck & Kieser, 2003; Schulz, 2003).

What are the main implications of these arguments and findings for the relationship between problem absorption by rules and organizational learning? Insofar as problem absorption involves *exploitation* of experiences already encoded in extant rules, it may prevent *exploration* of alternative solutions (March, 1991; Schulz, 1998a). Note that such exploitation need not imply the absence of learning, since rule users can learn “how to operate within rules, extending the meaning of rules to new situations, molding them to encompass new problems” (March, Schulz, & Zhou, 2000: 53). However, this kind of experiential learning *within* rules is seen as contributing to the stability of those rules (cf. Zhou, 1993), and thus to the codification trap mechanism mentioned above (Schulz, 1998a; Levitt & March, 1988). Even when some of these learned experiences are formally incorporated into the rules via the revision process, such revisions may well only serve to further enhance the rule’s stability through refinement (Beck & Kieser, 2003; March, Schulz, & Zhou, 2000).

Despite considerable theoretical and empirical progress towards understanding both the problem absorption phenomenon itself, as well as its importance and consequences for organizations, we contend that important gaps in the theoretical treatment of the phenomenon still remain, and that filling those gaps from a process perspective will yield insights that may challenge some of the above conclusions regarding the relationship between problem absorption and organizational learning and change. In particular, extant treatments of problem absorption do not sufficiently address the micro-processes through which absorption occurs, the broader normative and cognitive foundations that underpin the organizational rule system, and the role played by reflexivity

of organizational members. In the next section we further elaborate on these issues and explain how adopting a process perspective can both sensitize us to them, as well as provide a way to theorize about them.

4.2.2 A Processual View of Problem Absorption

The meta-theoretical approach that we favour treats organizational rules as components of unfolding organizational practices (Schatzki, 2005; 2006). Moreover, it views the performative dimension (Feldman & Pentland, 2003) of such practices as inescapably open-ended and processual, and as having ontological primacy over the structure/organization/patterning of practice, which is a secondary accomplishment (Schatzki, 2005; Tsoukas & Chia, 2002). In line with this assumption, the meanings of artifacts like written rules are not ‘given’ once and for all but are negotiated in and through practical activity, ever remaining open-ended and in a state of becoming (Tsoukas & Chia, 2002). As Tsoukas (1996) has forcefully argued, drawing on the work of Wittgenstein (1959) and other philosophers and social theorists, the knowledge that informs and directs the flow of practice can never be reduced to such rules, since ‘correct’ use of any rule in a specific case always presupposes an unarticulated background of understandings, expectations and embodied abilities.

How can this perspective contribute to our understanding of problem absorption? First, it provides a way of going beyond the truism that rules are extended or ‘stretched’ to cope with new cases (Schulz, 1998a) and of theorizing about this process. The very notion of ‘stretching’ presupposes not only a view of rule use as involving attempts to subsume particular cases under general categories that correspond to the rule’s domain (Schulz, 1998a), but also a distinction between prototypical and non-prototypical cases, the former

being more representative of a given category than the latter (Tsoukas & Chia, 2002). The ‘absorption’ of a problem by a rule will thus often require “an imaginative projection of a category beyond prototypical cases to marginal ones”, which in turn has “the potential of extending the radius of application of the concept, thus transforming it” (Tsoukas & Chia, 2002: 574). This conceptualization opens up new questions about problem absorption, such as the issue of the stability of prototypes, and the long-term effects of such conceptual micro-transformations.

Second, by emphasizing that rules are incomplete and so can never determine their own use (Reynaud, 2005; Tsoukas, 1996), the process perspective encourages us to look beyond the properties of the written rules themselves in analyzing problem absorption and its effects. For example, work on organizational routines and practices suggests that not only rules, but also general background assumptions and understandings about, for example, the nature of the task performed, the social roles of organizational members, organizational goals and priorities, and other relatively ‘enduring’ aspects of organizational context, make an important contribution to the patterning of activities in organizations (e.g., Feldman & Rafaeli, 2002; Schatzki, 2006). This does not imply that all such understandings, if brought into focal awareness and reflected upon (Tsoukas, 1996), will be met with agreement by all participants in the routine or practice, but merely that there is sufficient implicit agreement to sustain mutual expectations and the patterning of activity.⁹ Some of these understandings will also correspond to the cognitive and normative foundations underpinning certain sets of rules within the rule system; foundations that

⁹ A participant can feel a pressure to conform due to her assumption that such implicit agreement exists among others. However, this assumption may well overestimate the actual extent of agreement.

develop over time through theorizing and valorizing activities (Heugens & Osadchiy, 2007; Lawrence & Suddaby, 2006).

One of the reasons why these understandings cannot be neglected in the analysis of problem absorption is that they are likely to encompass lessons from past rule use experience, including stories about different prototypical and non-prototypical cases that have already been encountered and any precedents that may have been established (Levitt & March, 1988). As emphasized by Schatzki (2006), the concept of organizational memory¹⁰ is necessary for explaining how general understandings about practice are preserved in organizations (Walsh & Ungson, 1991). While written rules may be regarded as the formal memory of the organization (Heugens & Osadchiy, 2007; Levitt & March, 1988: 327; Schatzki, 2006), it is also important to recognize that “organizations have memories in the form of precedents” (Cyert & March, 1992: 38). An analysis of problem absorption must take both these interdependent memory repositories into account.

Third, the analysis of problem absorption requires clarity in the assumptions regarding the scope for and role of human reflexivity in rule use (Tsoukas & Chia, 2002). While Schulz (1998a: 853) suggests that problem absorption by bureaucrats might be “habitual” or the result of training (Merton, 1940), our view is that the constraints of bureaucracy can be mediated by reflexivity on the part of actors (Archer, 2003). Indeed, the view of rules as forming relatively enduring institutional structures with their own emergent causal powers, which constrain and enable the practice of agents (Archer, 1995), can be juxtaposed with the view of rules as ‘tools’ that are ‘readily available’ to practitioners who use them and that gradually come to be ‘internalized’ or ‘dwelled-in’ by

¹⁰ The processual orientation sensitizes us to the danger of reifying organizational memory or conceptualizing it in substantialist terms. Perhaps ‘organizational remembering’ would be a better term in this context (cf. Feldman & Feldman, 2006).

those practitioners (Chia & Holt, 2006). While the language of ‘internalization’ may appear to conflate people and rules (cf. Archer, 1995 on Giddens), this criticism need not apply. The analytic distinction between rules and rule users can still be maintained, since there is always a possibility of “distancing of the individual from the phenomenon apprehended”, a reflexive standing back, which characterizes the ‘occurrent’ mode of engagement with the world (Chia & Holt, 2006: 641).

4.3 Problems, rules, reflexivity

The term ‘organizational problem’ can have a variety of meanings, which poses a challenge for abstract theory. Typically, a problem is defined as “an undesirable gap between an expected and an observed state” (Tucker, Edmondson, & Spear, 2002: 124; see also Cowan, 1990: 366). It is generally recognized problems are social constructs that can be said to ‘exist’ only insofar as they are “recognized as existing” (March, Schulz, & Zhou, 2000: 63). Problem constructions are “imposed [on the ongoing flow of events], but not in total disregard of one’s context and constraints” (Weick, 1995: 89). In light of the process perspective, where activity is seen as central to the phenomenon of organization (Schatzki, 2006; Tsoukas & Chia, 2002), it makes sense to conceptualize organizational problems as inextricably linked to activity. Indeed, as pointed out by William Starbuck (1983), organizational problems are often framed as ‘needs for action’.

However, most of the activity that occurs continuously in organizations does not involve the imposition of problems or explicit search processes (Starbuck, 1983). Rather, it takes place within what Chia and Holt (2006), following Heidegger, called the ‘dwelling’ mode of engagement with the world, where circumstances and objects present themselves as ‘available’ for activity. It is only when there is “a shift from the experience of

immersion in projects to a sense that the flow of action has become unintelligible in some way” (Weick, Sutcliffe, & Obstfeld, 2005: 409) that ‘problematization’ of activity is likely to take place (Emirbayer & Mische, 1998: 998). Some elements within the unfolding situation are apprehended as unexpected, novel or ambiguous, which prevents the continuation of activity in the ‘dwelling’ mode. Instead, subsequent action with regards to the situation must take place within the ‘building’ or ‘occurrent’ mode of engagement, which allows for more disengaged reflexivity (Chia & Holt, 2006), at least until the momentarily disrupted sense of order is restored.

Given this understanding of organizational problems, we may say that a situation that has been problematized is ‘absorbed’ when organizational members find a way of responding to that situation in a manner that both they and others within the organization might recognize as being in accordance with existing formal rules. Moreover, after the response, the situation is no longer regarded as problematic, and therefore does not become a pretext for proposals of new formal rules (Schulz, 1998a). We believe that this interpretation of ‘problem absorption’ is consistent with the arguments in the literature on rule dynamics (March, Schulz, & Zhou, 2000; Schulz, 1998a).¹¹

A further and perhaps crucial point is that an attempt to respond to a situation in accordance with existing rules can generate problems of its own, which might be called *rule-related* problems. Specifically, the situation’s novel or ambiguous features can make people wonder, *which* rule (if any) should be applied. Alternatively, or perhaps additionally, it may not be clear *how* a particular rule should be applied. As will hopefully

¹¹ Still, perhaps this interpretation does not completely exhaust what these authors had in mind. One might argue that by enabling the enactment of a rationalized and patterned context of activity (Weick, 1995), and facilitating the emergence of organizational routines (Reynaud, 2005), formal rules make it less likely that situations will be problematized in the first place. While we acknowledge that it may well be worth exploring ‘problem absorption’ in this second sense, we leave it as a task for future research.

become clear as we consider specific examples, these rule-related problems frequently have to do with categorization (Tsoukas & Chia, 2002). Indeed, difficulties of categorization are often the reason why situations are problematized in the first place (Emirbayer & Mische, 1998). How organizational members cope with such rule-related problems can make the difference between problem absorption and non-absorption. If no rule seems applicable or if some rules cannot be applied in the usual way, it becomes more likely that the response to the situation will be more ‘ad hoc’ (Winter, 2003), improvisatory (Moorman & Miner, 1998) or ‘non-canonical’ (Brown & Duguid, 1991). In some cases, this may entail an officially authorized exception to some rule or even an (unauthorized) rule violation (Lehman & Ramanujam, 2009). These non-absorption responses can alert organizational rule making agencies to the ‘problem’ and motivate them to create new rules or adjust existing ones so as to enable the organization to handle similar problems in a more routine way in the future (Schulz, 1998a).

4.3.1 Two Examples of Problem Absorption

To clarify the types of situations that we have in mind, we shall make use of two examples of problem absorption. The first example, we consider the work of a treasurer of a university department¹². The part of the treasurer’s role relevant to our analysis consisted in evaluating and approving research-related expenditures that were to be financed from the department’s budget. The applicant would fill out a form, providing details on the types of expenditure planned (e.g. conference visit, research collaboration, etc.) together with the estimates of the expenses, which was then forwarded to the treasurer, who had to sign the

12 I thank Irma Bogenrieder for sharing this example with me. See also Bogenrieder and Magala (2007).

application for approval. The treasurer was formally responsible for verifying that the expenditures were relevant to the department's research needs. In doing so, she naturally also had to take into account the department's financial situation. The treasurer's decisions were formally reviewed by the university's financial department, which made sure that these decisions were lawful and that the total expenditures remained within the budgetary limits.

The application form specified different categories of expenditure together with some rules and standards for ensuring that the expenditures remained relevant and the budget was not exceeded. In describing the case, we are specifically concerned with the category labeled 'conference presentations'. Recall that a case can be more or less prototypical relative to a category (Rosch & Lloyd, 1973, cited in Tsoukas & Chia, 2002). In this example, a prototypical application falling under the 'conference presentations' category would involve a department member attending a conference with the aim of presenting a paper. The written rules stipulated that the category covered both conference fees and costs of travel and accommodation. However, as the treasurer was soon to discover, some conferences also required participants to be full members of the association linked to the conference, such as the AOM or EGOS. Attendance of such conferences thus entailed not only the usual conference registration fees, but also membership fees. This was the first problem or *non-prototypical* case faced by the treasurer, since the rules on the application form said nothing about membership fees. Thus, the treasurer had to decide whether or not to extend the 'conference presentations' category and interpret it as also covering membership fees. After careful reflection and consultation, the treasurer chose to extend the original category.

This example is a case of problem absorption, since the treasurer brought a non-prototypical request within the domain of existing rules (Schulz, 1998a) and handled it by extending one of the categories. The problem was rule-related, since the request revealed (what the treasurer recognized as) a problematic ambiguity of the rules. The treasurer's decision resulted in a foregone opportunity for rule revision, such as the establishment of a separate category and procedure for membership fees (both related and unrelated to conferences). Later on in this chapter, we shall describe how this decision had the unintended consequence of attracting further non-prototypical cases for the treasurer cope with.

The second example is drawn from a historical study of the Rotterdam port (Van Driel & Bogenrieder, 2009). The focal rule is a bye-law for regulating the use of berths in the Rotterdam port, adopted in 1883. The bye-law stipulated that only "liner services" or "ships maintaining a scheduled service for many different customers" could be granted the right to a permanent berth (Van Driel & Bogenrieder, 2009: 654). The first truly problematic case in the history of the bye-law involved the firm Wm. H. Müller & Co., which had filed a request for a permanent berth in 1891. While the municipal executive was in principle willing to grant the request, other important actors opposed such a decision on the grounds Müller had initially failed to name specific ships that would use the berth, which was one of the official requirements. The case thus illustrates the role of disagreement between actors in the social construction of organizational problems. When Müller eventually did provide the details of the ships, further questions were raised about whether those ships were in fact true 'liner services'. In all likelihood, the actors viewed "the short sea traffic that dominated the Rotterdam liner shipping scene" as the prototype for the 'liner service' category (Van Driel & Bogenrieder, 2009: 657). The prototypical

'liners' were thus daily or weekly services, while the ships mentioned by Müller were primarily bi-weekly services (ibid.). However, since the bye-law did not explicitly specify the meaning of 'liner service', it was also possible to interpret it in Müller's favour. In the end, the city council agreed to grant the request, thereby extending the radius of the category beyond the prototype (Tsoukas & Chia, 2002).

4.3.2 The Role of Reflexivity

As these examples illustrate, problem absorption is about "special cases that have to be fitted to a given repertoire of actions" (Levinthal & Rerup, 2006: 507). Actors recognize a case as ambiguous or non-prototypical when they are attentive to *both* the similarity & the difference (Weick & Sutcliffe, 2006: 516) between the prototypical cases that they have experienced in the past and the case they are faced with in the present. That is, the "systems of relevances" (Schutz, 1964, cited in Emirbayer & Mische, 1998: 979) acquired by actors through practical experience directs their attention to specific similarities and the differences that might be relevant in their work. For example, the similarity between membership fees and other conference-related expenses suggests to the treasurer the possibility of applying existing rules, while the fact that such fees have until now not been financed from the budget makes her hesitate. When a case is non-prototypical relative to a rule's domain, this can make actors uncertain as to *whether* the rule applies to the case. When a case is non-prototypical relative to a category that serves as a criterion for what should be done according to the rule, such as the 'liner service' category in the port example, this can make actors uncertain as to *how* the rule applies to the case (i.e. which action would be consistent with the rule).

The fact that the non-prototypical case cannot be immediately subsumed leads actors to problematize the situation and to engage with the case more reflexively or mindfully (Levinthal & Rerup, 2006). An important component of this reflexive engagement will be what Emirbayer and Mische (1998: 971) called the ‘practical-evaluative element’ of agency, which “entails the capacity of actors to make practical and normative judgments among alternative possible trajectories of action”. Note that among these trajectories may be the action of *not* subsuming the case under any rule-related category. Thus, problem absorption is not inevitable and reflection can enable the exercise of agency with regard to whether and how the problem is absorbed.

Of course, in organizations with many rules, the frequency with which rules will be cited as legitimating reasons for action is likely to be quite high (Ocasio, 1999: 393). Rules will consequently tend to be seen as being “more or less exhaustive” and “gapless” (Weber, 1978: 958, 656, cited in Nass, 1986). Given these background understandings, actors may face strong normative pressure towards problem absorption that can constrain their agency. Empirical research can shed more light on the agentic choice between absorption and non-absorption, which is no doubt an important topic, but one that is beyond the scope of this chapter.

Even when the problem is absorbed, reflexive agency can still matter in the process. In reflecting on the possibility of subsuming the case under different rule-related categories, what is relevant are not only the relevant similarities and differences between the case and the prototypical instances of the categories (Tsoukas & Chia, 2002), but also the overall variability of past instances still belonging to each of those categories (cf. Holland et al., 1986: 185-188). Both the sense of a category’s overall variability and understandings about prototypical instances are developed through the use of the category

in practice and can be brought to bear on the present situation through organizational remembering (Feldman & Feldman, 2006), in which actors' personal experiences, written organizational records (Walsh & Ungson, 1991), and storytelling (Boje, 1991) can all play a role. For example, there was ambiguity in the Müller case as to whether the ships in question could be categorized as 'liners' or 'irregular'. In the debates that followed, actors considered the prototypical examples of liner ships and noted the variability within the category between daily and weekly services.

The last point we wish to highlight here is that reflection need not be completely retrospective, but will in most instances also cover the possible actions to be taken if a given rule is applied to the case and the anticipated consequences of these actions. This is the core of Emirbayer and Mische's (1998) practical-evaluative element. As Levinthal and Rerup (2006: 507) observed, "an important skill in the context of bureaucratic organizations is the art of manipulating the label or category with which a given request or initiative is encoded to elicit a desired outcome". Thus, reflexive evaluation of courses of action and anticipated outcomes in light of personal projects, understandings about organizational goals, and the teleological ordering of the relevant practice (Schatzki, 2006), clearly matters in problem absorption.

4.3.3 Stabilizing Consequences

In the short run, problem absorption may be seen as contributing to the stability of both the individual rule and the rule system as a whole. First, extending the rule to new problems will tend to increase both its pragmatic and cognitive legitimacy (Suchman, 1995); it not only serves to reaffirm the rule's usefulness to the organization, but also contributes to its becoming increasingly taken for granted as part of organizational life, so that its

abandonment seems almost unthinkable (Zucker, 1977). Second, problem absorption is an experiential learning process, whereby rule users become more skilful in interpreting and applying the rule, which in turn makes them less likely to challenge it (Zhou, 1993: 1138).

Third, problem absorption via rule extension to non-prototypical cases leaves far less scope for exploration of novel responses that could potentially be encoded into new rules (Schulz, 1998a). Fourth, it is important to remember that the organizational rule system “is not some abstract chart but one of the crucial instruments by which groups perpetuate their power and control in organizations: groups struggle to constitute structures in order that they may become constituting” (Ranson, Hinings, & Greenwood, 1980: 8). Thus, as long as problems are absorbed and individual rules within the system remain unchallenged, the ‘rule regime’ as a whole becomes more entrenched (March, Schulz, & Zhou, 2000).

While acknowledging that problem absorption can have the stabilizing effects just described, what we would like to do in the remainder of this chapter is to focus on the more dynamic consequences of problem absorption. As we argue below, problem absorption can be seen as involving a special kind of organizational learning (March, Schulz, & Zhou, 2000). Furthermore, repeated problem absorption by the same rule can lead to amplification of the small changes that problem absorption generates (Plowman et al., 2007), thereby giving rise to more radical forms of change.

4.4 Dynamic consequences and organizational learning

4.4.1 Semantic Learning

Corley and Gioia (2003: 625) used the term ‘semantic learning’ to refer to the “changes to the intersubjective meanings underlying the labels and actions constituting the core of a collective’s understanding of themselves”, and emphasized that such learning need not involve any changes to the actual labels. Although their discussion focused on the labels and meanings that form the basis for organizational identity, we suggest that an analogous learning process can take place at the micro level when existing rules are extended to deal with non-prototypical cases, enabling the organization to maintain relative stability in its (rule-based) response in the face of variety in stimuli (Weick, 1991). While problem absorption does not generally lead to changes in the actual text of the written rule, including the labels used to specify its domain and the actions it prescribes, it can still modify the *categories* for those labels (Tsoukas & Chia, 2002). In the words of Corley and Gioia (2003: 622), “the meanings associated with these labels change to accommodate current needs”. Because the intention of rule users in problem absorption is usually to deal with the new case, rather than to transform the rule’s meaning, semantic learning is likely to be an unintended consequence of problem absorption. Thus we can also agree with Corley and Gioia’s (2003: 625) assertion that semantic learning can take place “without explicit awareness of learning, without the recognition of learning, or even without the intention to learn by the members of the collective.”¹³

¹³ This, of course, does not mean that rule extension itself must be a completely tacit or unreflexive process. On the contrary, as should be clear from the previous sections, it rarely is in our view.

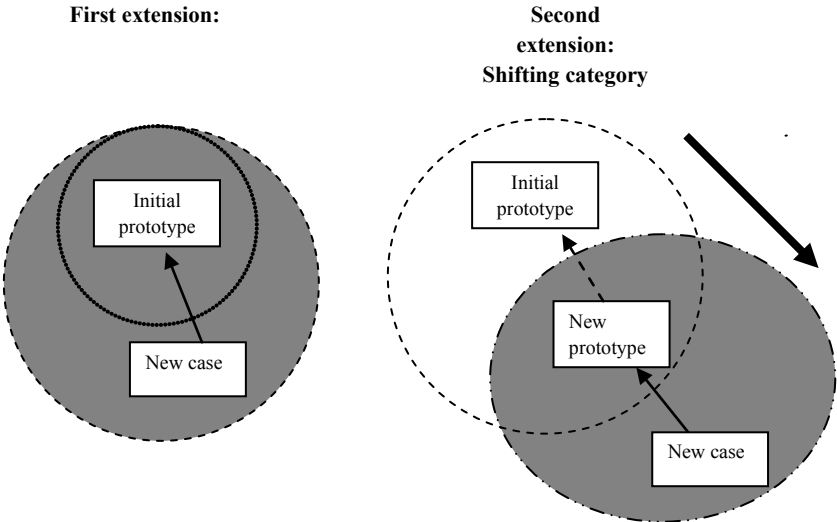
One aspect of semantic learning that Corley and Gioia's (2003) did not sufficiently emphasize is the cumulative nature of modifications of meaning. Similarly, discussions of problem absorption by rules do not address the implications of *repeated* absorption (March, Schulz, & Zhou, 2000; Schulz, 1998a). Only Tsoukas and Chia (2002: 756), while discussing empirical material from Feldman (2000), briefly mentioned that extensions of "current policies" to accommodate non-prototypical cases "provided opportunities for further changes". We believe that the temporal dimension of problem absorption and the tendency for later changes in the meaning/use of formal rules to build on earlier ones deserves greater attention. We also wish to highlight the role played by organizational remembering (Feldman & Feldman, 2006) in making it possible for semantic learning to become cumulative and have lasting effects.

As an illustration of our arguments, we return to our earlier example of the treasurer's work at a university department. Recall that the treasurer had found it necessary to interpret the 'conference presentations' category as also covering conference-related membership fees, thus allowing such fees to be paid out of the department's budget under the existing rules. This decision set a precedent (Levitt & March, 1988) for subsequent uses of the application with regards to conferences requiring membership fees. Over time, visits to conferences requiring membership fees became more common, in effect making such cases part of the prototypical core of the category (Tsoukas & Chia, 2002). This in its turn paved the way for further category extensions.

The next non-prototypical request faced by the treasurer involved a membership fee that was not related to any conference, but had to be paid in order to enable the applicant to join a special association of researchers. In the absence of prior history of problem absorption, it would be very difficult to justify classifying such an expense under

‘conference presentations’. However, given the fact that the category had already been extended to some membership fees, as well as the lack of any alternative category that could cover the case, the treasurer faced strong normative and political pressure from department members to extend the category once again, which she did. What happened was a category *shift*, where a case (or set of cases) that used to be treated as non-prototypical came to serve as the new prototype, to which future cases could be compared. Such a shift need not involve the complete unlearning (Tsang & Zahra, 2008) of the initial prototype, such that it no longer plays any role in the use of the rule in question, but it at least opens up the possibility of rule application to cases, which would not have been included based purely on comparisons with the initial prototype.

Figure 4.1: Category enlargement and category shift



We distinguish the phenomenon of category *shift* from (mere) category *enlargement*, as illustrated in **Figure 4.1**. Category enlargement occurs when past category extensions modify organizational members' sense of the overall variability of category, while category shift additionally involves an adjustment of the prototype, as in the above example. Pure category enlargement occurred when the treasurer was forced to also extend the category to conference visits that did not involve any paper presentations for the applicant. Essentially, the cases of membership fees enabled both the treasurer and the department members to see the category as encompassing more variability (and the category boundaries as being more broad and flexible) compared with the initial understanding of the category that was based solely on prototypical cases. Therefore, a seemingly unrelated extension to membership fees also paved the way for a further broadening of the category to cover conference visits for non-presenters.

As the example illustrates, problem absorption is form of experiential learning insofar as it involves inquiry about how to respond to a mismatch between expected and observed situations or outcomes, as well as the retention of "learning agents' discoveries, inventions, and evaluations [...] in organizational memory" (Argyris & Schön, 1978: 19) in the form of new understandings and precedents for future rule applications. In the above example, the new understandings and precedents were relevant both for the treasurer (an actor formally charged with applying or enforcing the rule) and for the applicants (the actors directly affected by the rule). As participants in a common routine, both parties were able to learn about the others' "tasks and perceptions of the routine" (Feldman & Rafaeli, 2002: 314). The treasurer learned more about the kinds of expenses that applicants wanted reimbursed, while the applicants became more likely to submit further non-prototypical

requests under an old category once they learned that the treasurer was sometimes willing to extend the category beyond the prototypical instances.

However, without broader reflection on the whole cumulative experience with the rule, semantic learning of the kind that we have described is likely to be limited in its impact on the organization and especially its more formal aspects, such as the rule itself. At best, it constitutes a form of practical drift (Snook, 2002) that leads to an increasing divergence between the abstract understandings about the rule-governed practice, which generally remain wedded to prototypical performances, and the actually pattern of practice itself, which has been transformed through problem absorption (Feldman & Pentland, 2003). In the next section we discuss how problem absorption can induce a higher order learning process with more far-reaching effects for organizational rules.

4.4.2 Higher-Level Learning

Organizational learning theories often distinguish between different types or levels of learning. Fiol and Lyles (1985), building on Argyris and Schön's (1978) classification of single versus double-loop learning, postulate two levels of learning. Lower-level learning stems from repeated action within a given set of rules leading to new behavioural outcomes, while higher-level is a non-repetitive enquiry leading to the development of new rules and understandings (Fiol & Lyles, 1985). Nicolini and Meznar (1995) make a related distinction between learning as a continuous and often unconscious process of cognitive modification in the course of practice, which is especially close to the notion of semantic learning discussed above, and learning as a socially constructed product of organizational self-observation and abstraction. Finally, in developing their process perspective on organizational change, Tsoukas and Chia (2002: 579-580) appear to differentiate between

‘microscopic’ change, which is pervasive and “always ongoing” in organizations, and institutionalized change, which depends at least in part on the management’s “declarative powers” to turn change into a potential institutional fact (Searle, 1995).

The relationship between the two levels of learning, however, is not entirely clear. Although it is recognized that lower-level learning “can provide the raw material” for higher-level learning (Lant & Mezias, 1992: 64; Nicolini & Mezner, 1995), the two processes have sometimes been presented as relatively independent (Fiol & Lyles, 1985) or even antagonistic (Levitt & March, 1988; March, 1991). Some have suggested that a transition from lower to higher-level learning can be triggered when experience from lower-level learning is “equivocal” (Lant & Mezias, 1992: 64), when organizational performance falls below the aspiration level (Cyert & March, 1992; Lant & Mezias, 1992), or when the organization faces a crisis (Fiol & Lyles, 1985). In analyzing the consequences of problem absorption by rules we can better understand the process through which lower-level (semantic) learning can lead to higher-level organizational learning and change in written rules. The consequences we have in mind have to do with the emergence of new understandings and patterns of practice that can undermine the pragmatic, cognitive and normative bases of a rule’s legitimacy (Suchman, 1995).

Cognitive burden and breadth. First, repeated problem absorption can impose considerable cognitive burden on rule users and those whom they may consult and/or ask for authorization with regard to whether or not to extend the rule. This happens precisely because, as we argued above, problem absorption is often a reflexive (rather than mindless) process. Especially when people have to engage in such reflection frequently for the same rule (and thus encounter uncertainty in the expected results), the important purpose of the rule to provide a sense of order gradually becomes undermined by non-prototypical cases.

The rule's use imposes cognitive burden instead of reducing it (Simon, 1997), thereby undermining the rule's usefulness or pragmatic legitimacy in the eyes of rule users. In the example introduced above, the treasurer found after repeated extensions of the category that the rule was not helping her to reach a decision on a particular application, but rather that she had to consider each case in light of the whole history of past decisions.

Second, cumulative category enlargements and category shifts tend to make the rule quite broad or inclusive. Rule users may consequently find it increasingly difficult to draw the line and justify *not* extending the rule further given that it has already been extended so often in the past. Thus, the rule's usefulness in making distinctions can become undermined (Tsoukas & Vladimirov, 2001). Although each non-prototypical extension might be plausible in the concrete situation, nevertheless the sum of all extensions can generate problems for rule application, which in turn provide opportunities for learning and change. For example, after the rule has been extended to non-conference membership fees and to conference visits without paper presentations, the treasurer was asking herself: "Where does it stop?" She could no longer use the rule to justify turning down applications, even when their relevance to the department's research needs might be called into question. The reflexive attitude towards the rule induced by problem absorption makes it more likely that the rule's diminished usefulness (in making distinctions and reducing cognitive burden) will be recognized within the organization.

Reflection on broader understandings. The same reflexive attitude can also contribute towards weakening the rule's cognitive legitimacy or taken-for-grantedness within the organization (Suchman, 1995). Because applications of a rule to non-prototypical cases are difficult to justify on the basis of the rule's text alone, other considerations, including especially the purpose or rationale behind the rule, are likely to

be cited in accounting for such applications. Thus, problem absorption can bring the historical circumstances surrounding to the rule's adoption into the focal awareness of organizational members (Tsoukas, 1996). More precisely, certain understandings about the rule's history and rationale will be re-constructed and elaborated through the process of organizational remembering (Feldman & Feldman, 2006). The very activity of reflecting on these matters can reduce the tendency to see the rule a necessary or inevitable part of the organization (Suchman, 1995) or to value it for its own sake (Merton, 1940; Selznick, 1957). It can also make people more aware of potential alternatives to the rule.

Rationalized cultural understandings about formal organizational rules generally focus on the rules' relationship to organizational goals, technical expertise or professional norms (Meyer & Rowan, 1977). However, organizational preferences and goals are frequently 'ill-defined' and ambiguous (Cohen, March, & Olsen, 1972; Lindblom, 1959), while professional jurisdictions are often contested (Bechky, 2003; Reed, 1996). Thus, collective reflection on the rule's purpose can reopen old debates over what the relevant organizational goals and professional norms are, and how best to balance conflicting norms and goals. The normative underpinnings (Lawrence & Suddaby, 2006; Suchman, 1995) of the organizational rule (or even a whole set of organizational rules) may be called into question as a result. For example, the bye-law regulating the use of permanent berths in the Port of Rotterdam was originally adopted in 1883 in order to prevent "independent middlemen [from] make[ing] money out of the right on permanent berths" (Van Driel & Bogenrieder, 2009: 654). However, by the end of the debates in the late 1890s, which were stimulated and informed by controversial extensions of the category 'liner service' within the bye-law, the relevant authorities came to the conclusion that the prosperity of the port was no longer "best served by an unmediated relation between the port and the end users

of its berths”, which in turn made it possible for a major revision of the bye-law to be passed in 1900 (ibid.: 663).

Transition to higher-level learning. As this example shows, reflection on how the rule relates to boarder organizational goals can trigger higher-level learning and formal rule change when actors with formal authority over organizational rulemaking become involved in this reflection. This is consistent with the view that higher-level learning “occurs mostly in upper levels” of the organization (Fiol & Lyles, 1985: 810). If the organization has routines for monitoring and reviewing rule applications, then these can help to bring the non-prototypical rule applications to the attention of rule makers and thus ensure their involvement in the reflection induced by repeated problem absorption. Factors like organizational voice/silence (Morrison & Milliken, 2003) and the politics of issue selling (Dutton et al., 2001) can also affect whether reflection will become a collective process in which rule makers participate as well.

The transition to higher-level learning also implies the occurrence of a ‘cognitive breakdown’ (Nicolini & Meznar, 1995: 739) or a “realization that certain experiences cannot be interpreted within the current belief system” (Lant & Mezias, 1992: 42; Argyris & Schön, 1978). In the context of problem absorption, this means that organizational members realize that the pattern of repeated category extensions cannot continue anymore. The sense of increased cognitive burden and of inability to make distinctions due to excessive broadening of the category can help to trigger such realization, as discussed above. The undermining of the rule’s taken-for-grantedness and normative underpinnings can in turn make organizational members more willing to consider revising the rule or even suspending it altogether. Although the precise outcome of higher-level learning is difficult to predict ex ante, it is clear that the outcome will be affected by the

organizational experience with category extensions. Given that higher-level learning is a response to a cognitive breakdown induced by this experience, it is likely to involve “the effort not to incur the same breakdown again” (Nicolini & Meznar, 1995: 739).

Indeed, one result of higher-level learning can be an attempt to reverse the process of category extensions that has taken place in the course of applying the rule. The rule might be revised so as to explicitly prohibit the kinds of extensions that have taken place by delineating more explicitly the boundaries of the relevant category¹⁴. Thus, if the setting of precedents through category extensions is a form of (semantic) organizational learning, as we maintain, then rule revisions that explicitly reject those precedents are a form of organizational unlearning (Tsang & Zahra, 2008). However, this is not what happened in the Rotterdam Port example. There, the rule makers actually embraced rather than rejected the results of semantic learning, since the revised bye-law explicitly authorized the use of permanent berths by irregular ships, whereas prior to the revision such ships were only permitted to use permanent berths when the officials were willing to stretch their definition of liner service (Van Driel & Bogenrieder, 2009). Thus reflection on the process of semantic learning can reveal the not only inadequacy of the old rules in dealing with the problems that have been absorbed, but also the value of some lessons from the process of semantic learning for the organization.

The extent to which the consequences of semantic learning, such as the increased variety of users of permanent berths in the port example, are embraced or rejected in rule revisions is difficult to predict. Rejection may become less likely when broadening of rule

¹⁴ Of course, no amount of specification can eliminate the need for judgment in applying the rule to new cases, since the specifications themselves can only be made in abstract terms with the possibility of non-prototypical applications (Tsoukas, 1996; Wittgenstein, 1953). For example, changing the category ‘conference presentations’ into ‘conference presentations excluding membership fees’ will not help in cases, where it is not clear whether the relevant expense is a membership fee or not.

categories over time generates organizational commitments that are difficult to reverse. Furthermore, as noted by March, Sproull, and Tamuz (1991: 5), it can happen that the “preferences and values in terms of which organizations distinguish successes from failures are themselves transformed in the process of learning”. Thus, the process of semantic learning can subtly modify the prevailing understandings of organizational goals and preferences, which can in turn pave the way for more radical forms of change, such as rule suspension (March, Schulz, & Zhou, 2000).

4.5 Summary and discussion

The aim of this chapter was to further develop the concept of problem absorption and to explore the relationship between problem absorption and organizational learning. Building on the process view, we suggested that an important part of problem absorption is the extension of categories of existing rules to non-prototypical cases, which can transform the meaning of those categories in practice without changing the actual text of the rules (Tsoukas & Chia, 2002). Thus, our perspective on rules parallels Feldman and Pentland’s (2003) argument that the performative aspect of a routine can vary even while its ostensive aspect (i.e. the abstract understanding of the routine) and the associated written rules, documents, and other artifacts, seem to remain relatively stable. In fact, variation at the performative level can actually contribute to stability at the ostensive and artifact levels (Essén, 2008), just as problem absorption in practice can sometimes contribute to the stability of a rule. Given that written rules are similar to technological artifacts (Adler & Borys, 1996), Orlikowski’s (2000: 407) arguments that technology’s capacity to structure work is not inherent, but is *enacted* through “people’s repeated and situated interaction with particular technologies”, and that “technologies-in-practice” can undergo subtle

transformations that will not be apparent when technologies are examined apart from practice, also generalize to rules.

However, apart from Tsoukas and Chia's (2002) contribution, this literature fails to address the crucial role of categorization in the interaction between the performative and the ostensive or artifact levels. Category extensions are an important type of performative variation, which can to some extent modify people's shared understandings of the relevant categories (ostensive change), but without changing the associated labels and the normative link between categories of situations and categories of actions, as encoded in written rules (ostensive stability). We build on Tsoukas and Chia's (2002) arguments that extensions transform the *radius* of a category by affecting understandings about category variability, but further add that extensions can transform understandings about the *core* or prototype, leading to category shifts.

We also develop Tsoukas and Chia's (2002: 580) brief remark about the 'agglomerative' nature of microscopic change and the possibility of such change being 'amplified' (ibid.: 579; see also Plowman et al., 2007) by examining the effects of repeated extensions, each building on the previous one. We identified organizational remembering, and specifically reliance on precedents in rule use, as the crucial enabling condition for cumulative extensions. While our analysis echoes Feldman's (2000: 620) finding that continuous change in routines is possible when previous performances generate "outcomes [that] enable new opportunities", giving participants "the option of expanding" the routine, we specifically focus on category enlargements and shifts as the outcomes that provide opportunities for further change in the use of formal rules.

Finally, we explored the possibility of microscopic change (via problem absorption) leading to formal organizational change (in the form of rule revisions), which

Tsoukas and Chia (2002: 580) mentioned as an “interesting topic [...] for further theoretical development”. We framed the issue as one of transition from lower to higher-level learning (Fiol & Lyles, 1985). Like Feldman and Pentland (2003; see also Feldman, 2000), we argued that collective reflection on problem absorption and its outcomes (performative aspect) in relation to broader understandings that underpin the rule (ostensive aspect) matters in bringing about more fundamental changes. The crucial question that is not addressed in this literature, however, is why the performative variation cannot continue indefinitely without inducing any major changes to the ostensive aspect and the relevant artifacts. After all, research shows that flexible routines can persist in organizations (Howard-Grenville, 2005), and they may persist precisely because of (rather than in spite of) performative variation (Essén, 2008). What then might be the limits to the persistence of flexibly-applied rules?

We argued that because rule application to non-prototypical cases requires reflection (Levinthal & Rerup, 2006; Tsoukas & Chia, 2002), it imposes cognitive burden on those who actually apply the rules or review rule applications. When rules have been extended repeatedly, the accumulated precedents add to the burden. This can make organizational members dissatisfied with the current version of the rule. Furthermore, repeated extensions can blur the boundaries between the categories and undermine the rule’s role as standards for drawing distinctions. Finally, reflection on the purpose of the rule can enable the organization to recognize that the purpose is no longer valid or that it would be best served by developing a different rule. It is these factors that, in our view, enable the transition to higher-level learning with regards to rules and can thus ‘release’ the organization from the codification trap (Schulz, 1998a).

An important issue for future research is how experience with problem absorption might affect the contents of the revised rules. While we agree with Feldman (2000: 624) that “rule changes may simply be the codification of changes that are already made”, and specifically of the changes to rule-categories in problem absorption, we also suggest that the process of rule revision in response to problem absorption can entail more exploratory forms of learning (March, 1991), where the outcome cannot simply be inferred from prior organizational history or experience. Furthermore, the aim of codification might in some cases be to reverse some of the category extensions and to preclude their occurrence in the future.

4.5 Conclusion

The process perspective on organizations suggests that although change always has primacy, a sense of order can emerge temporarily when distinctions are made between different types of situations and systematically connected to distinctions between different types of actions (Tsoukas & Vladimirov, 2001). By serving as reminders of the imperative to continue making those distinctions and connections in practice, written rules contribute to the maintenance of the sense of order in organizations. In some situations, the distinctions and connections will be more difficult to make than in others. Such situations act as momentary disruptions of the sense of order and might be called ‘problems’ by those who attend to them. Yet, organizational members can often find a way of acting in such situations that is consistent with the imperatives of the rules. Building on previous research, we called this phenomenon ‘problem absorption’.

Problem absorption subtly transforms in the way in which distinctions are made within an organization, and thus constitutes a form of ‘semantic’ organizational learning.

Furthermore, when it occurs repeatedly, its cumulative consequences can lead to far greater disruptions to the sense of order and trigger a transition to higher-level organizational learning. We identified reflexivity as the crucial enabling condition in this process. We argued that through reflection on problem absorption both in situ, as well as retrospectively, organizations can develop new understandings about the relevant practice that can undermine existing rules and clear the way for the development of new distinctions and associations.

CHAPTER 5

TASKS AND POLITICS: Explaining rule change in UNESCO's World Heritage program, 1977-2004

This chapter examines how organizational politics influence bureaucratic rule change, a form of incremental organizational change. By performing an event history analysis of changes to the organizational rules in the World Heritage Program of the United Nations Educational, Scientific and Cultural Organization (UNESCO) between 1977 and 2004, we test a set of hypotheses predicting that rule changes in bureaucracies will be driven by dominant coalition power processes against competing hypotheses that such changes derive from rational adaptation to technical contingencies. In line with the political perspective, we find that change in World Heritage rules is related to the normative power and cultural heterogeneity of the States represented on the World Heritage Committee in a given year, and that these relationships exist even after controlling for technical factors. These findings contribute to research on the dynamics of organizational rules by suggesting that the composition of the rulemaking body exerts an independent effect on rule change that needs to be explicitly taken into account. Our study also has implications for the analysis of the dysfunctions of bureaucracy, indicating that bureaucratic inertia stems from the heterogeneity of rule makers rather than their overall power position.

5.1 Introduction: the two faces of bureaucracy

The study of bureaucracy has long been established as a major branch in administrative science (e.g. Adler & Borys, 1996; Blau, 1955; Gouldner, 1954; Ouchi, 1980; Schulz, 1998a). Many of the contributors to this research stream portray bureaucracy as an organizational form that tends towards stability, if not outright inertia and resistance to change (Downs, 1967; Merton, 1940; Miller & Chen, 1994; Selznick, 1943; but see Blau,

1955; Kallinikos, 2006). These tendencies derive in no small part from the constitutive properties of this organizational form, which include the breakdown and partitioning of decision problems over several hierarchically nested groups of decision-makers, the formalization of administrative processes in rational-legal rule sets, and the extensive use of written communication and files for record-keeping (Weber, 1978). Moreover, a long-standing tradition of configurational research on bureaucratic organizations stresses the additional inertia and stability that derive from the vital interdependencies between these constitutive properties (Fiss, 2007; Meyer, Tsui, & Hinings, 1993; Short, Payne, & Ketchen, 2008; Walton, 2005).

Even though the conception of bureaucracy as a stable and inert organizational form dominates the field, this vision may have to be modified and expanded in the future with the emergence of new theories of how bureaucracies change over time (e.g., March, Schulz, & Zhou, 2000; Schulz, 2003). These new theories argue that historical measures of organizational change as fluctuations in the degree of bureaucratization (e.g. Baron, Burton, & Hannan, 1999; Meyer & Brown, 1977; Slack & Hinings, 1994) and as shifts in the configuration of bureaucratic elements (Astley, 1985; Walton, 2005) may in fact underestimate the prevalence of bureaucratic change because they fail to register the form of bureaucratic change that is most endemic to bureaucratic organizations: adjustment of the bureaucratic architecture of formal rules that guide and constrain all areas of decision-making in the bureaucratic domain. It is a major achievement of this concise but impactful genre of administrative studies that the attention of scholars studying bureaucracy is now increasingly focused on this incremental type of bureaucratic change, which can be observed even when the degree of bureaucratization or the bureaucratic configuration remains the same, making it possible to map previously undetectable forms of

organizational adaptation. Its contributors employ a fine-grained type of intraorganizational analysis, which traces developments in the ecology of organizational rules by mapping the life history of each and every individual rule. The upshot of these analyses is a clearer vision of how bureaucracies change, notably by adjusting their rule systems to endogenous and exogenous contingencies.

In terms of identifying the drivers of bureaucratic rule change, prior work has primarily pointed to factors that are endogenous to the rule system itself, such as the system's age, as well as individual rule size, age and number of previous changes (Beck & Kieser, 2003; March et al., 2000). Yet in terms of exogenous dynamics, this genre has thus far focused primarily on the classic conception of organizational change in relation to task-environmental contingencies (Donaldson, 1987; Thompson, 2003), with examples including rule proliferation and change in response to increasing organizational size and complexity (Beck & Kieser, 2003; March et al. 2000; Schulz, 1998a). In this sense, its contributors' conceptualization of bureaucracy remains limited to Weber's (1978) original notion of it, in which it is largely portrayed as a system operating exclusively according to *Zweckrationalität*, or instrumental rationality. These 'neo-Weberians' (Heugens, 2005) thus follow Weber closely by underwriting his claim that a reliance on written rules makes bureaucracy a 'rational' type of organization, where 'rationality' is evaluated mainly in terms of efficiency (Weiss, 1983).

It has long been recognized in the sociological analysis of the bureaucratic organizational form, however, that bureaucracy is essentially Janus-faced (Adler & Borys, 1996; Gouldner, 1954; Hallett & Ventresca, 2006), capable of looking two ways at once. Whereas bureaucracy certainly has a 'rational' side focused on handling complex tasks efficiently and reliably through a division of labor, the creation of accountability, and the

adjustment of decision tasks to decision makers' cognitive abilities (Simon, 1997), it also has a political side (e.g. McNeil, 1978; Weiss, 1983), constituting "a power instrument of the first order for the one who controls [it]" (Weber, 1978: 987). Specifically, bureaucracy's strict monocratic hierarchy of authority creates strong informational and knowledge asymmetries as well as remunerative, status, and control imbalances in organizations, which in turn give rise to strong power differentials between organizational participants (Etzioni, 1961; Hardy & Clegg, 2006; Pfeffer, 1981). When such power differentials are not appropriately checked by organizational governance and control systems (Eisenhardt, 1985; Ouchi, 1980; Van Maanen & Barley, 1984), the private interests of those in power rather than task-environmental contingencies can become the main drivers of bureaucratic change.

In this chapter we test the previously untested hypothesis that rule changes in bureaucratic organizations are driven by such power processes against the competing hypothesis that such changes derive from rational adaptations to task-environmental contingencies. Our conceptualization of power-based bureaucratic decision-making is that of rivaling factions vying to control the organization for private benefit (Cyert & March, 1992). Privileged power positions can elevate certain of these factions to the – temporary and contested – status of a dominant coalition (Cyert & March, 1992; Child, 1972b; Hambrick & Mason, 1984; Finkelstein, 1992), which enjoys control over rule creation, change, and suspension processes. Whereas the specific interests and intentions of dominant coalitions are hard to observe directly, certain coalitions have a conservative agenda with an interest in keeping an organization on course of its original mission, while others push a progressive agenda and are keen to steer the organization in a divergent course. In operational terms, we expect that conservative dominant coalitions will seek to

achieve their goal of mission preservation by slowing down rule change. Conversely, progressively oriented coalitions will seek to achieve mission transformation by speeding it up. In our analysis, a coalition's power can derive from at least three sources. First, in bureaucratic organizations power usually (though not always; Child, 1972b) has a social role (Emerson, 1962; Ibarra, 1993) or social-structural dimension (Brass, 1984; Krackhardt, 1990), in that it derives from actors' organizational position, such as their occupancy of an office or membership of a committee. Second, power can be based on remunerative (Clegg, 1979; Etzioni, 1961) or resource control (Casciaro & Piskorski, 2005; Pfeffer & Salancik, 1978), in that it derives from actors' abilities to grant or withhold others prized resources. Third, and finally, power can be based on a normative (Blau, 1964; Etzioni, 1961) or institutional (Dacin, 1997; Thornton & Ocasio, 1999) foundation in that it derives from the other-perceived legitimacy of actors' interests or decisions.

The empirical context we use to test our hypotheses is formed by a major branch of a transnational bureaucracy, the World Heritage Program (WHP) of the United Nations Educational, Scientific and Cultural Organization (UNESCO). The WHP is an appropriate research context for testing our theoretical interests for four reasons. First, the WHP, as well as UNESCO more broadly, is an archetypical bureaucratic organization that possesses all properties that are deemed characteristic of this organizational form, ranging from a strictly hierarchical structure to highly formalized organizational procedures. Second, the formal rule system of the WHP is well-documented in the form of a complete and codified rule manual, first published in 1977 and regularly updated at 1-4 year intervals thereafter. In total, we were able to obtain and analyze thirteen editions of the manual (counting the initial 1977 edition), containing a total of 368 versions of 180 rules. Third, the WHP is

governed by the World Heritage Committee, composed of representatives of 21 States Parties to the World Heritage Convention. Because the countries represented on the Committee change substantially over time, the Committee is an excellent context for observing the work of dominant coalitions in action. Fourth, and finally, because the Committee is staffed by individuals acting in a commissioned role, the Committee represents and encompasses various power bases, ranging from the predominantly normative power base of committee members representing nation states harboring a disproportionately large share of the world's cultural or natural heritage (e.g., Italy, Greece, and Egypt) to the predominantly remunerative power base of members representing nation states with an exceptionally large economy, whom are by far the largest contributors to the UNESCO organization (e.g., the U.S., Germany, and Japan).

Our study offers three contributions related to the theorization of organizational change and politics in administrative science. First, it advances the research program focusing on the dynamics of organizational rules by demonstrating that rule change is as much shaped by the behavior of dominant coalitions, as it is by rule histories and various technical factors (March et al., 2000). Second our results speak to bureaucracy theory in general, and to the theory of bureaucratic dysfunctions (Crozier, 1964; Merton, 1940) in particular. Bureaucracy theorists have long wrestled with the seemingly contradictory notions of bureaucracy as a rational organizational form, in which individual interests necessarily become subordinate to organizational goals and the norms of technical efficiency (Weber, 1978), and bureaucracy as a producer of red tape, organizational rigidity and inertia (Merton, 1940). Our study suggests that while some of its dysfunctions can indeed be traced to the power-oriented side of this Janus-faced organizational form (cf. Walsh & Dewar, 1987), the operation of power should not be assumed to necessarily lead

to rigidity or inhibit organizational problem-solving. Third, our results bolster existing theories of organizational change by directing attention to the role of power in incremental change processes. Change approaches like contingency theory (Astley, 1985; Donaldson, 2001), learning theory (Levitt & March, 1988), and evolutionary theory (Nelson & Winter, 1982; Miner, 1991) predominantly focus on organizational adaptations to task-related contingencies, neglecting actors' interests as a (possibly exogenous) source of change in their own right. And while the political (Pfeffer, 1981) or upper-echelon (Hambrick & Mason, 1984) studies of change have come a long way towards filling this gap, they introduce a bias of their own by focusing primarily on changes in organizational strategy or radical forms of structural change. Our study helps to strengthen the political perspective by showing both theoretically and empirically how its arguments also apply to more incremental forms of change in organizational structure.

5.2 Theoretical background

5.2.1 Organizational Change: Two Perspectives

Among the various theoretical traditions in administrative science that are concerned with the problem of organizational change two prominent perspectives are structural contingency theory and political theory (Hage, 1999). Whereas these perspectives are mostly used to explain sweeping changes in organizational form, such as shifts towards more organic structures (Burns & Stalker, 1961) or post-bureaucratic organizational forms (Hodgson, 2004), we suggest that they can also be applied to the analysis of incremental change. Seen through a structural contingency theory lens, change in organizational structure is caused by changes in internal and external contingencies, such as

organizational size, task uncertainty, and environmental uncertainty (Donaldson, 2001). More precisely, it is argued that change in the level of a given contingency variable can result in misfit between that variable's new level and the existing organizational structure, which lowers organizational performance. Eventually, organizational structure would change in a way that restores its fit with the relevant contingency, thereby increasing performance. The argument relies on the assumption of technical rationality of organizational structure (Astley, 1985: 202; Gouldner, 1959; Thompson, 2003). As noted by Donaldson (2001: 249), "the theory can explain the incremental change that many organizations display," based on the assumption that even minor changes in contingency variables can lead to misfit and therefore trigger incremental structural adjustments.

The political perspective, on the other hand, emphasizes the role of organization's dominant coalition in structural change (Child, 1972b; 1999), where the dominant coalition is defined as a group of "interdependent individuals who collectively have sufficient control of organizational resources to commit them in certain directions and to withhold them from others" (Thompson, 2003: 128; see also Cyert & March, 1992; Pfeffer & Salancik, 1978). In its strong form, the political perspective challenges the contingency theory assumption of technical rationality (cf. Astley & Van de Ven, 1983; Pfeffer, 1981) as well as the argument that the dominant coalition will invariably adjust organizational structure to fit relevant contingencies (Child, 1972b; Miller, 1991). As far as organizational change (or lack thereof) is concerned, empirical studies in this tradition have focused primarily on strategic persistence (e.g., Hambrick, Geletkanycz, & Fredrickson, 1993; Westphal & Bendar, 2005); major strategic changes, such as diversification (Boeker, 1997; Goodstein & Boeker, 1991; Greve & Mitsuhashi, 2007; Wiersema & Bantel, 1992); and new program adoption (e.g., Bantel & Jackson, 1989; Hage & Dewar, 1973). However,

empirical research into the effect of dominant coalitions on incremental structural change is sparse, even though such change is quite congruent with the political perspective (Dutton et al., 2001; Lindblom, 1959).

Although usually presented separately, these two perspectives are not completely antagonistic. Contingency theoreticians acknowledge the dominant coalition's role in structural adjustment, and even allow for the possibility that the coalition's preferences could affect "the rate at which structural adjustment is made" (Donaldson, 1987: 19). However, they may not go so far as to allow the coalition's preferences to have an independent effect on structural change, maintaining that the latter is triggered solely by "[m]isfit of structure to contingencies" (Donaldson, 1987: 20; 2001). Political approaches, on the other hand, readily acknowledge that technical contingencies can constrain structures (e.g. Ranson, Hinings, & Greenwood, 1980), but emphasize this is not the whole story.

5.2.2 Bureaucratic Rule Change: Previous Research

Most empirical studies focusing on incremental organizational change in the form of rule amendments (Beck & Kieser, 2003; March et al., 2000; Schulz, 1998b, 2003) do not use either the contingency or the political perspective as the main theoretical framework¹⁵. Bureaucratic rule change scholars widely acknowledge the relevance of these perspectives, however, and occasionally include some contingency and political control variables in their empirical work.

¹⁵ The political perspective figured more prominently in research by Witteloostuijn and de Jong (2008). However, this study examined change of national laws rather than organizational rules.

For example, in a study of Stanford University's written rules, Zhou (1993: 1153) hypothesized that "[t]he rates of rule founding and of rule change are positively related to the complexity of organizational structure," a key variable in contingency theory (Blau, 1957). Complexity was measured as the number of academic programs, and organizational size (student and faculty numbers) was also included as a control variable. He found that size did not have a significant effect on rule changes, while the effect of structural complexity was not robust across different rule populations and time periods (see also March et al., 2000; Schulz, 1998b, who used the same dataset and reported similar findings). Subsequently, Beck & Kieser (2003) studied change of personnel rules at a German Bank, and their control variables similarly included measures of organizational size (number of employees) and complexity (number of branches). They found a robust negative influence of organizational size on rule change, but no effect of complexity.

Furthermore, in their joint work on rules and rule change, March, Schulz, & Zhou (2000) argued that rules record solutions to both technical and political problems, and therefore can be expected to adapt to both technical and political pressures. In their empirical analysis, they examined how the likelihood of rule change was affected by *external* political-institutional pressures, measured in terms of government legislation and funding of higher education. They found that legislation generally had a positive effect on rule change, while the effect of funding was contradictory across different models. Yet this study did not examine the effects of the dominant coalition (i.e. internal politics), though it did provide some evidence for the claim that rule makers' attention plays a role in determining which rules will be revised when (see also Sullivan, 2010).

In short, in spite of these promising efforts to study internal rule ecologies, a more comprehensive empirical analysis of the role of technical and internal political factors in

rule change is needed before we can assess the relative ability of the two perspectives to explain incremental change in bureaucracies. In this chapter, we therefore concurrently test hypotheses predicting the responsiveness of rule systems to technical factors like growth in staff, service output, and membership against hypotheses attributing rule system change to political factors like dominant coalition turnover, diversity, and remunerative and normative power.

5.3 Technical and political antecedents of rule change

5.3.1 Technical Drivers of Rule Change

The effect of organizational growth on bureaucratic structure has been one of the central themes of contingency theory (e.g. Astley, 1985; Blau, 1957; Donaldson, 2001; Kimberly, 1976), and therefore, focusing on growth seems especially appropriate for testing the technical perspective on rule change. It is often argued that reliance on formal rules offers greater efficiency advantages to larger organizations (e.g. Pugh et al., 1968; Weber, 1978; Walsh & Dewar, 1987), and longitudinal research generally confirms the link between organizational growth and increase in the overall levels of formalization (Beck, 2006; Inkson, Pugh, & Hickson, 1970).¹⁶ However, the effect of organizational growth on change of individual rules (rather than rule proliferation) is less obvious due that fact that growth (like organizational size) has many dimensions (Kimberly, 1976), and multiple causal mechanisms can play a role.

¹⁶ It is important to note that this association may also have an institutional explanation rather than an efficiency explanation (cf. Meyer and Rowan, 1977; Walsh & Dewar, 1987).

Growth in staff. The first type of organizational growth that we consider is growth in the number of staff. As Damanpour (1992: 377) points out, organizational size “directly affects the size of the administrative component of the organization through which most administrative innovations are introduced”. Naturally, the administrative component usually also plays an important role in the organizational rulemaking process (e.g., Walsh & Dewar, 1987). Furthermore, research on rulemaking shows that adjustment of rules requires organizational attention (Sullivan, 2010), which suggests that rule changes might be easier to finalize when there are some slack human resources available. These arguments lead us to expect that slack in human resources generated by staff growth will act as a ‘facilitator’ of rule change (cf. Cheng & Kesner, 1997), which is in line with the results of a study by Beck (2006), who found that increasing number of employees led to increasing size of personnel rules, measured by the number of pages devoted to each individual rule. The opposite scenario, where staff is somehow used to buffer (Cheng & Kesner, 1997; Thompson, 2003) the rule system from the need to adapt to technical contingencies, seems to us far less plausible. If existing rules are not consistent with the surrounding conditions and need to be changed (Schulz, 1998b), then it is hard to see how having more staff might help the organization to cope with this inconsistency.

H1a: Growth in staff decreases the time until the next rule change.

One possible objection to hypotheses 1a might appeal to the concept of structural inertia and the idea that larger organizations will be more inert (Hannan & Freeman, 1984). Indeed, Beck & Kieser (2003: 808) used this idea to explain their finding that the likelihood of rule change decreased as the number of the organization’s employees increased. However, the original arguments of structural inertia theory (Hannan &

Freeman, 1984), as well as most of the empirical studies that tested those arguments (e.g. Delacroix & Swaminathan, 1991; Haveman, 1993; Kelly & Amburgey, 1991), were concerned with strategic change or radical change to core organizational features, and it is not clear whether these arguments can be straightforwardly generalized to change in organizational rules, which is arguably incremental and non-core. Moreover, Hannan and Freeman (1984: 159) actually wrote that the “relationship between size and the rate of structural change [was] indeterminate in [their] theory,” precisely because larger organizations might be more likely have the resources to achieve structural change. Still, the possible confounding effect of pressures towards structural inertia poses a challenge in testing the above hypothesis and the associated theory. Luckily, as we discuss later on in this chapter, there might be a methodological solution to this problem, which involves measuring short-term rather than long-term growth.

Service output. One aspect of organizational size that has been largely neglected in research on organizational change is output (Kimberly, 1976). Inputs and outputs are important concepts in the open systems perspective on organizations (Thompson, 2003) and reflect “the amount of activity to which the core technology of the organization is exposed in a given period of time” (Kimberly, 1976: 588). In the case of a service organization like UNESCO, the output is generally intangible and inseparable from the inputs, while the ‘technology’ is constituted by various organizational procedures for handling transactions with clients (Mills & Moberg, 1982; Thompson, 2003). Thus, it is quite conceivable that the rules that govern these transactions will be affected by the volume of transactions completed in a given period of time (i.e. service output). Specifically, a sharp increase in output can generate problems for the actors that have to use the rules, and previous research has argued that new organizational problems are

precisely what drives rule change (March et al., 2000; Sullivan, 2010). Therefore, we propose the following hypothesis:

*H1b: Growth in (service) output decreases the time until the next rule change*¹⁷

Membership. A final aspect of size that we consider is membership. This aspect of size is especially important for so-called ‘meta-organizations’ (Ahrne & Brunsson, 2005; 2008), which are organizations that have other organizations or nation states as members. The number of staff employed by an intergovernmental organization is likely to be affected by the number of its member states, but research shows that the former tends to grow at a faster rate than the latter (Vaubel, Dreher, & Soylu, 2007). Growth in the number of members of a meta-organization may become “a possible source of [organizational] changes, as new members introduce new ideas or a different balance of power” (Ahrne & Brunsson, 2005: 443). Because meta-organizations often have rules that govern their interactions with their members, membership growth should tend to trigger rule changes.

H1c: Growth in membership decreases the time until the next rule change

It should be emphasized that the effects predicted in hypotheses 1a, b and c might be counteracted by structural inertia stemming from intensified pressures for reliability and accountability that often accompany growth (Hannan & Freeman, 1984). This possibility needs to be taken into account when testing the hypotheses and interpreting the results.

¹⁷ Surprisingly, an early study of the Chicago Board of Trade found that that the volume of transactions had no significant effect on changes in the rules that are meant to govern those transactions (Leblebici & Salancik, 1982), which seems contradict the above hypothesis. However, this finding may not generalize to those organizational contexts, where increased volume of transactions is more likely to generate problems. Moreover, the study pooled rule births and rule changes in measuring the dependent variable. Thus, we find it worthwhile to test hypothesis 1b (and our arguments for it) with new data, despite Leblebici and Salancik’s (1982) discouraging finding.

5.3.2 Political Drivers of Rule Change

While organizational growth represents the paradigmatic example of a technical factor that is likely to either induce, facilitate, or impede incremental structural change in an organization, the characteristics of the dominant coalition represent a paradigmatic example of a political factor in organizational life (e.g., Hambrick & Mason, 1984; Ocasio, 1994). And although the dominant coalition cannot be assumed to initiate and control *all* structural changes in an organization, it is still likely to have a say in the vast majority of such changes. Particularly in the case of rule changes, formal authority to approve a revised rule before it can be officially issued will usually rest in the hands of members of the dominant coalition. Of course, this need not always be the case, and the extent to which the dominant coalition is able to control the activities of organizational rulemaking bodies can vary.

Turnover. One variable that is likely to affect the extent of such control is turnover in the rulemaking body. A common argument in the literature associated with the upper echelons perspective on organizations (Hambrick & Mason, 1984) is that turnover within an elite decision making group, such as a top management team (TMT) or a corporate board of directors, can help to overcome inertia stemming from entrenched interests and cognitive biases within that group (e.g., Goodstein & Boeker, 1991; Nystrom & Starbuck, 1984; Tushman & Romanelli, 1985; Wiersema & Bantel, 1993). Some empirical studies show that TMT turnover is indeed associated with increased strategic and structural change in firms attempting turnaround (Barker III, Patterson Jr, & Mueller, 2001), and that turnover in hospitals' boards of directors has a positive effect on new

service adoption (Goodstein & Boeker, 1991). Yet, other studies failed to find a positive effect of TMT turnover on strategic reorientation (Lant, Milliken, & Batra, 1992) or even found a negative effect (Gordon et al., 2000). Moreover, all these studies focused on large-scale strategic and organizational changes as opposed to incremental changes, which remains a neglected topic within the upper echelons perspective.

The effects of turnover on the work of rulemaking bodies have also been examined in the political science literature. One study showed, for example, that membership turnover in state legislatures was not related to the percentage of bills passed (Squire, 1998). Van Witteloostuijn and De Jong (2008), on the other hand, found that government cabinet turnover had a positive effect on contemporaneous changes in higher education legislation. They reasoned that when a cabinet was succeeded by another administration, the new cabinet would strive to prove to the electorate that it has the will to make the necessary changes (ibid.: 507). However, there is reason to expect a positive relationship even in cases of more routine turnover in a rulemaking group (as opposed to its wholesale replacement), where the expectations of the electorate are a less salient concern. Turnover of rule makers can be seen as one aspect of a rule regime change, where a ‘rule regime’ refers to “organizational systems, agents, and processes which create and revise rules for a delimited problem domain” (Schulz & Beck, 2002: 16). As a rule regime matures, rule change become more rare, which is explained by mutual adaptation between the rule system and the interests and experiences of rule makers (Beck & Kieser, 2003; March et al., 2000; Schulz & Beck, 2002). However, higher turnover of rule makers is likely to lead to a temporary disruption of this process, causing rules to be changed sooner.

H2a: Turnover of members of the rulemaking body decreases the time until the next rule change

Heterogeneity. Besides turnover, research in the upper echelon perspective has also examined the effects of decision maker heterogeneity. Some studies indicate that high levels of top management heterogeneity are associated with interpersonal conflict and therefore lower cohesiveness (Knight et al., 1999). TMT heterogeneity has also been found to weaken social integration (Smith et al., 1994; see also review in Certo, et al., 2006), while homogeneity appeared to strengthen it (O'Reilly, Caldwell, & Barnett, 1989). In some studies, decision maker *homogeneity* also appeared to have a positive effect on organizational change (e.g. O'Reilly, Snyder & Boothe, 1993) and on change in national laws (van Witteloostuijn & de Jong, 2008). Conversely, *diversity* within corporate boards was associated with less strategic change (Goodstein et al., 1994). Thus, based on these findings and arguments, one would expect heterogeneity of the rulemaking body to reduce the likelihood of reaching consensus in political negotiations between rule makers. Assuming that such consensus is required for initiating and finalizing rule change, the time until the next rule change should increase (van Witteloostuijn & de Jong, 2008).

In this chapter we focus on cultural heterogeneity, which seems particularly relevant for decision making in an intergovernmental organization.¹⁸ The effect of such heterogeneity on organizational change has (to our knowledge) not been examined in prior research. Elron (1997) found that TMT cultural heterogeneity had a positive effect on organizational performance, a positive effect on issue-based conflict, and no effect on cohesion. Given that issue-based conflict is likely to make reaching agreement on rule change more difficult, we propose the following hypothesis.

¹⁸ The relevance of cultural differences for negotiations in the World Heritage Committee was confirmed to us by an informant, who had previously served on the Committee.

H2b: Cultural heterogeneity in the rulemaking body increases the time until the next rule change

Remunerative and normative power. Power, or “the ability to get things done the way one wants them to be done” (Salancik & Pfeffer, 1977: 14; see also Weber, 1978: 926), is the central concept of the political perspective on organizations (Child, 1972b; Pfeffer, 1981). When applied to the topic of organizational change, the political perspective emphasizes that

“[o]rganizational defined groups vary in their ability to influence organizational change because they have differential power. Some groups and individuals are listened to more keenly than others. Some have more potential or less potential for enabling or resisting change” (Greenwood & Hinings, 1996: 1038).

It is therefore surprising that power has not been given much attention in previous research on rule change (but see van Witteloostuijn & de Jong, 2008).

Mobilization of power is not only required for bringing about major strategic and structural changes (e.g., Greve & Mitsuhashi, 2007), but also plays an important role even when it comes to comparatively small-scale organizational changes, such as changes in organizational routines (e.g. Howard-Grenville, 2005). The possibility of amending formal rules and procedures will often depend on the exercise of power in order to overcome “vested interests [that] become embedded in the procedures” (Walsh & Dewar, 1987: 225). Such power will not be limited to the purely formal authority that actors gain through their

election or appointment to an office in a decision making body (Weber, 1978), although “being in the right place” is certainly an important determinant of power (Brass, 1984). Rather, it will also encompass the ‘remunerative’ power (Etzioni, 1961) that actors gain due to their capacity to provide valued material resources to the organization (Pfeffer & Salancik, 1978).

Actors enjoying a relatively stronger power position within organizations may well be committed to the status quo rather than change (e.g. Greenwood & Hinings, 1996). This is especially true for radical or ‘divergent’ organizational change, which is therefore generally assumed to entail changing power distributions (Tushman & Romanelli, 1985). Incremental or convergent change, on the other hand, often proceeds through the process of issue selling (Dutton et al., 2001), where any change must be endorsed by members of the dominant coalition through a formal decision making process if it is to materialize at all. At the same time, actors enjoying a high level of remunerative power may be able to prevent unwanted changes from becoming an issue for decision making in the first place (Bachrach & Baratz, 1962). With regard to rulemaking, this implies that most of rule changes considered by the rulemaking body will be in line with the interests of actors with a high level of remunerative power. However, the participation of these actors will still be required in order to overcome potential opposition to these changes within the rulemaking body itself. Hence, we expect that rule changes will be more likely to occur when actors with greater remunerative power are represented in the rulemaking body.

H2c: Rule makers’ remunerative power decreases the time until the next rule change

Besides structural and remunerative power, actors may also mobilize normative power in order to secure the necessary changes (Etzioni, 1961). Normative power is based on the “allocation and manipulation of symbolic rewards and deprivations”, including “esteem and prestige” (Etzioni, 1961: 5). A similar concept of ‘prestige power’ can be found in the literature on dominant coalitions (Finkelstein, 1992). In the institutional literature prestige is understood as “an organization’s capacity to achieve objectives by virtue of enjoying a favorable social evaluation”, and this capacity is seen as related to the organization’s legitimacy, status and reputation (Deephouse & Suchman, 2008: 66). We expect the effect of rule makers’ normative power on rule change to be similar to that of remunerative power. Specifically, rule changes become more likely when actors with high normative power are represented on the rule making body. Because, as mentioned above, actors’ normative power is associated with their prestige and legitimacy, participation of legitimate and powerful actors in rule change negotiations is vital for ensuring that these changes are perceived as legitimate by the relevant audiences (Deephouse & Suchman, 2008).

H2d: Rule makers’ normative power decreases the time until the next rule change

5.4 Method

5.4.1 UNESCO’s World Heritage Program

The United Nations Educational, Scientific and Cultural Organization (UNESCO) was founded in 1945 as part of a broader set of UN specialized agencies. The organization’s purpose, as formulated in its Constitution, is “to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order

to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms.” UNESCO’s constitutional organs are: (i) the General Conference, consisting of representatives of all Member States of UNESCO, (ii) the Executive Board,, elected by the General Conference, and (iii) the Secretariat, headed by the Director-General, who is appointed by the Conference for a period of four years. The General Conference sets policy and budget, the Executive Board is responsible for the execution of the program adopted by the Conference, while the Secretariat, consisting of civil servants from various countries, performs the day-to-day work of the organization. UNESCO is organized into five Program Sectors (Education, Natural Sciences, Social and Human Sciences, Culture, and Communication and Information), each encompassing a variety of specific programs and projects.

One of the major programs within the Culture Sector focuses on administering the World Heritage Convention (WHC). This Convention was adopted by the UNESCO General Conference in 1972 with the aim of “establishing an effective system of collective protection of the cultural and natural heritage of outstanding universal value”. The key decision-making body established within UNESCO under the Convention is the World Heritage Committee, consisting of representatives from 21 of the States Parties to the WHC. These are elected by the General Assembly of States Parties to the WHC, which meets during the sessions of the General Conference. The Committee meets at least once a year and its main tasks are to decide which properties are to be inscribed onto or deleted from the World Heritage List (WHL), to monitor the state of conservation of the properties inscribed on the WHL, to decide whether certain properties from the WHL should be inscribed on, or removed from, the List of World Heritage in Danger, to formulate the procedure concerning requests for international assistance, to evaluate the implementation

of the WHC, and to formulate and revise the Operational Guidelines (see Zacharias, 2008: 1844).

The Committee is assisted in its work by the Secretariat of UNESCO, as well as by three Advisory Bodies: the International Union for Conservation of Nature (IUCN), the International Council on Monuments and Sites (ICOMOS), and the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM). The latter are international organizations that were named in the WHC.

5.4.2 The Operational Guidelines

The Operational Guidelines for the Implementation of the WHC set out the specific criteria for the inscription of properties on the lists and the granting of assistance, which were left undefined in the Convention. The Guidelines thus play an important role in the Committee's work, which tends to treat them "as if they were not merely a nonbinding commentary to the Conventional provisions but binding secondary law" (Zacharias, 2008: 1849). They were first adopted by the Committee in 1977, and revised twelve times in the course of the following 30 years (Zacharias, 2008: 1848). The stated purpose of the Guidelines is to inform "States Parties to the Convention of the principles which guide the work of the Committee in establishing the World Heritage List and the List of World Heritage in Danger and in granting international assistance". Thus, the Guidelines can be regarded as a formal coordination mechanism between the service provider (the Committee) and its 'clients' (the States Parties) (cf. Larsson & Bowen, 1989; Mills & Moberg, 1982).

The process of revising the guidelines varied depending on the scale and nature of revisions. For example, in 1978, the Committee simply authorized the Secretariat to amend

the Guidelines, so as “to bring them into line with the decisions taken at the second session”. The amended version was issued in the same year. In other cases, the process was more complex. For example, in 1979, Committee set up special working groups, consisting of representatives of several States Parties (who also happened to be members of the Committee in that year) and of the relevant Advisory Bodies, in order to define more precisely the World Heritage criteria. After hearing the reports of the working groups in the same year, the Committee took a number of decisions and instructed the Secretariat to prepare a draft of the revised Guidelines based on these decisions. It also instructed the Secretariat to prepare a draft of the procedures for the deletion of properties from the WHL, which it later adopted with some modifications. In 1980, the Committee examined the draft of the revised Guidelines, made some further detailed modifications to the text. The new version of the Guidelines was finally issued in the same year.

The Guidelines comprise a number of major sections, which reflect the tasks of the Committee: establishment of the WHL, reactive monitoring and periodic reporting, establishment of the List of World Heritage in danger, international assistance, the World Heritage Fund, balance between cultural and natural heritage, and a section on ‘other matters’, such as the use of the World Heritage Emblem. These are further subdivided into smaller subsections. For example, the guidelines on the establishment of the WHL are divided into ‘general principles’, indications to States Parties concerning nominations to the WHL, criteria for inclusion of cultural properties, criteria for inclusion of natural properties, procedure for the deletion of properties from the WHL, guidelines for the evaluation and examination of nominations, format and content of nominations, and procedure and timetable for the processing of nominations. The 1999 edition of the Guidelines was 38 pages long (not counting the eight pages of annexes).

In 2005, a new edition of the Guidelines was published, which was some 76 pages long (excluding another 60 pages of annexes) and which constituted a major overhaul of the original Guidelines. For example, the previously separate criteria for inscription of cultural and natural properties were combined, the Introduction was greatly extended by incorporating a lot of background information about the WHC and the WHP, an entirely new major section of guidelines on ‘encouraging support for the WHC’ was inserted. Given the radical nature of these changes, compared to more incremental additions and adjustments that characterized the development of the Guidelines up until that point, we decided to exclude them from the analysis and to end our observation period in 2004. In their study of rule changes, Beck and Kieser (2003: 799) similarly concluded their observation period just before the rulebook in question “underwent a significant redesign”.

5.4.3 Data and Model Specification

We modeled changes in the rules of UNESCO’s World Heritage using event history analysis. Our dataset included all rules (Operational Guidelines) created by the World Heritage Committee between 1977 and 2004. We obtained thirteen editions of the Operational Guidelines from UNESCO’s electronic archives (<http://whc.unesco.org/en/guidelines/>). When the Committee revised or suspended a rule, we coded either as the same event (rule change). If the rule was revised, we kept it in the dataset, but coded it as a new rule version. Our final dataset included 368 versions of 180 rules. To examine the effects of time-varying covariates, we split every rule observation into multiple annual spells (Blossfeld and Rohwer, 2002), equal to the total number of years that a rule version was in effect. The final dataset included 3,096 observations. However, since a rule was not at risk of revision during the year in which it was created,

we did not include the first observation year of each rule version in the analysis, and thus based our analysis on a total of 2,916 annual spells.

We chose a log-logistic, parametric specification to model rule revisions. In event history analysis, parametric models specify that the distribution function for the failure times takes on a specific shape. Such models are appropriate when there are strong theoretical reasons to believe that there is an underlying time dependency to the likelihood of an event occurring (Box-Steffensmeier and Jones, 2004). In the case of rule changes, past work on the evolution of rules in bureaucratic organizations suggests that time dependence of rule changes is likely to be non-monotonic, or more specifically, that the hazard of change tends to increase due to potential obsolescence of a rule over time, but this increase will occur with decreasing increments as a rule becomes institutionalized and possibly even ossified (e.g. Schulz, 1998b, 2003). In our modeling, we wanted to allow for the possibility that the hazard would actually begin to fall after some point due to institutionalization, suggesting nonmonotonic inverted U-shaped time dependence. The two primary specifications of nonmonotonic time dependence are the log-logistic and log-normal. Although these often yield very similar estimates (Box-Steffensmeier & Jones, 2004), we compared the fit of these competing specifications by assessing their Akaike information criterion (AIC) scores, which is an appropriate method for comparing the fit of nonnested models (Cleves, Gould, & Gutierrez, 2004). Based on minimizing the AIC (Box-Steffensmeier & Jones, 2004), our comparison provided evidence that the log-logistic (AIC = 679.02) specification offered a better fit than the log-normal (AIC = 755.60).

While previous research on rule change estimated hazard rates (e.g. March et al., 2000), we used a failure-time metric in order to implement our analysis in Stata. As

explained by Rao, Greve and Davis (2001: 514), who followed the same procedure, “[h]azard rate and failure-time metrics are mathematically equivalent, but the coefficients of a failure-time specification are read as effects on the time until failure [...], so a positive coefficient means longer event-time and thus lower hazard rate.” In our case, ‘time until failure’ is measured as the length of time until the next rule change (revision or suspension). The survival function of the log-logistic distribution is $S(t)=[1+\lambda t^p]^{-1}$, where λ and p are two parameters of the log-logistic distribution (see Kleinbaum & Klein, 2005). This model is implemented using an accelerated failure-time parametrization, obtained by parametrizing $1/\lambda^{1/p}=\exp(\alpha_0+\beta X)$, where X is a vector of predictor variables, and p is the shape parameter for the distribution (ibid.). Stata provides estimates of a parameter called ‘gamma’, which is equal to $1/p$. Thus, if gamma is more than or equal to 1, this means that the hazard decreases over time. If gamma is strictly less than 1, this indicates that hazard first increases and then decreases over time. We computed robust standard errors in all analyses, in order to adjust for clustering of observations at the level of individual rules (cf. Box-Steffensmeier & Jones, 2004; Rao et al., 2001). The rules that did not experience a change over their lifespan were treated as censored.

5.4.4 Dependent Variable

The dependent variable is the length of time between a rule’s birth or previous revision and its next revision or suspension. In line with previous studies (Beck & Kieser, 2003; March, Schulz, & Zhou, 2000; Zhou, 1993), we defined rule changes as either a revision or suspension of a rule. Rule revision involves the official replacement of an existing rule with another version of the same rule (March et al., 2000), while rule suspension occurs when a rule “is removed from the organization’s records and no successor version of the

rule is put in place” (March et al., 2000: 84). We measured such changes through a content analysis of the thirteen different editions of the Operational Guidelines. As emphasized by Zhou (1993), one of the challenges of research on rules is defining the boundaries of the key unit of analysis, viz. the individual rule. He points to the presence of a separate subtitle or a separate subsection as making such boundaries in a rulebook (Zhou, 1993: 1163). Accordingly, we used the numbered paragraphs in the Guidelines as the rule unit. Although these numbers change as new paragraphs are added to the Guidelines, the integrity of the paragraphs is preserved in the majority of revisions (i.e. paragraphs are seldom split or merged).

Whenever the text of a paragraph changed in a new edition of the Guidelines compared to the previous one (including minor changes in language), this was coded as a revision of the paragraph. Changes in numbering of paragraphs or in the headings under which they appeared were *not* counted as revisions. Rule changes were recorded only when a new edition of the Guidelines was actually published, with the publication year used as the time measure. In a few cases, we found that a paragraph from a previous edition of the Guidelines would be split into two separate paragraphs (with or without revisions) in the new edition. In such cases, we coded one of the resulting paragraphs as a new rule, and coded the other paragraph as a revision of the old rule. When a paragraph was eliminated from the Guidelines and no successor paragraph could be identified, this was coded as a suspension. In a few cases, existing paragraphs were combined into a single paragraph (with or without revisions), in which case one of the paragraphs was coded as a rule revision, and the other as a rule suspension.

5.4.5 Technical and Political Factors

To test the effects of growth and political factors, we included a number of time-varying covariates. These are discussed below.

Technical variables. Three measures of organizational growth were included. To measure growth in staff, we computed the simple difference between the total number of full-time staff employed by UNESCO at the end of the current year and the corresponding number of the previous year. We used the number of sites inscribed on the WHL per year as a measure of output growth, since the processing of nominations of sites to the WHL is a central task for the organs of the WHP (i.e. the Secretariat, the Advisory Bodies and the Committee), and the inscription of a site on this List indicates the successful completion of this task (and a favorable outcome for the State Party concerned). Finally, we included annual change (i.e. difference from the previous year) in the number of States Parties to the WHC as an indicator of membership growth. The data on UNESCO staff were obtained from the UN yearbook, while the data on the number of States Parties to the WHC and the number of sites inscribed were obtained from the World Heritage website. As can be seen from the correlation matrix, all of the growth variables are only weakly correlated, in line with the assumption that they are capturing distinct aspects of growth (Kimberly, 1976). It is important to note that the absolute organizational size in terms of staff is decreasing over most of the observation period (i.e. growth is mostly negative). We shall return to this point in the discussion section of this chapter.

In using yearly growth rather than an absolute measure of size, we are following research by March and colleagues, who similarly defined size in terms of yearly differences in order to avoid multicollinearity problems (March et al., 2000: 93). We encountered similar collinearity problems when we attempted to use absolute measures of

size in our models. Moreover, we follow these researchers in assuming that “the rule system responds to the magnitudes of changes in organizational size” (March et al., 2000: 93). This is consistent with the arguments for our hypotheses, which emphasize the response of the rule system to slack and organizational problems, since the latter can be plausibly assumed to be more affected by short-term changes in size, then by the long-term trend in absolute size. Furthermore, short-term changes in size are presumably less related to structural inertia than size in absolute terms, since growth-induced inertial forces tend to develop in organizations gradually (Hannan & Freeman, 1984), rather than to fluctuate from year to year.

Political variables. In order to test our four political hypotheses, we obtained data on States Parties that were listed as participants in the sessions of the Committee for a given year¹⁹. We disregarded the States Parties that were present merely as observers, since observers do not have the formal right to participate in Committee decision making. *Turnover* in the Committee was measured by summing the number of States Parties leaving the Committee (i.e. those who were listed as members for the previous session, but not for the current session) and the number of States Parties entering the Committee as a percentage of the total number of States on the Committee during the previous session (cf. Cho and Shen, 2007: 750). Turnover fluctuated strongly over time, and in most cases alternated between high and low values on a yearly basis.

We used average cultural distance between States Members of the Committee as a measure of *cultural heterogeneity*. To measure cultural distance between a pair of States

¹⁹ According to the WHC, the size of the Committee was meant to be equal to 15 States Parties until the Convention enters into force for a sufficient number of states, after which the size would increase to 21 States Parties. However, the official lists of participants in the Committee sessions show that there is some fluctuation size from year to year, since not all of the elected 15 or 21 States participate in these sessions.

Parties, we employed Kogut and Singh's (1988) cultural distance index, which is based on Hofstede's four cultural dimensions: power distance, uncertainty avoidance, masculinity/femininity, and individualism. We then computed the average dyadic cultural distance between States Members of the Committee in a given year by taking the arithmetic mean. Measures of Hofstede's dimensions were not available for 21 countries (30%) in the set of all countries that ever served on the Committee during the observation period. On average, we had 4.3 countries in a Committee session (23% of the average Committee size), for which the data were not available. When data was incomplete, we based our measure of cultural heterogeneity on all State Member pairs for which data was available.

We relied on countries' average GDP as a measure of their remunerative power in the Committee in a given year. The use of GDP as a measure of economic power is consistent with research on international relations (e.g., Dixon, 1983: 300). Moreover, it also captures power stemming from organizational resource dependence, since States' contributions to the UNESCO budget and the World Heritage Fund are determined based on their GDP. Our data source for GDP was World Bank's World Development Indicators, which allowed us to measure GDP for most countries on the Committee for each year of our observation period. We then computed the average level of GDP for the countries on the Committee in a given year, which we interpret as an indicator of overall Committee power. Unfortunately, for some countries GDP data were not available for certain years, and there was no data for Cuba for the whole observation period. This is much less of a problem for this variable than for cultural distance, however, since on average only 1.2 countries (0.06%) of all countries were represented on the Committee in a given year had missing values. We applied a natural log transformation to the GDP variable.

The fourth and final political factor in our model was States' normative power or prestige, which we tried to capture by measuring countries' representation on the World Heritage List. We reasoned that Within UNESCO's World Heritage program, prestige was largely allocated to States Parties through the 'tournament ritual' (Anand & Watson, 2004) of inscription on the WHL. Countries such as Italy, with a substantial share of properties on WHL (5.2% in 1998), are thus assumed to acquire normative power in World Heritage Negotiations based on obtaining so many prestigious inscriptions. A country like Brazil had a share of only 1.5% of all properties on the WHL in the same year, which is still higher than many other countries. Inscriptions indicate success, which in turn "often signals cultural acceptance and an ability to deliver on commitments", thus enabling successful players to acquire legitimacy (Deephouse & Suchman, 2008: 63). For each year, we determined the total number of inscribed World Heritage sites located on the territories of the States Parties that were serving on the Committee in that year. We then divided this number by the total size of the WHL, thus obtaining a measure of Committee members representation (or share of sites) on the WHL up until that point in time. Of course, representation on the List is affected by the dates of accession of the relevant States Parties, since countries that joined earlier have had more time to get their sites inscribed on the WHL than countries that joined later. Thus, this variable is also capturing any prestige or legitimacy that might derive from counties' longer 'tenure' within the WHP.

5.4.6 Control Variables

Rule-specific control variables. Previous research on rule change shows that the rate of change of organizational rules is affected not only by the characteristics of the relevant

organization, but also the individual histories of each rule. The fact that some rules may be more prone to change than others similarly needs to be controlled for in our models of rule change. To this end, we included two rule-specific controls. First, to control for one aspect of heterogeneity among rules, we included an indicator of rule type. We classified all rules as being either procedural or substantive. Substantive rules were defined as the rules concerned with decision outcomes and the conditions that have to be met for arriving at a given outcome (e.g., Heugens, 2005), while procedural rules were concerned with structuring bureaucratic processes and providing supplementary information about the organization. In operational terms, we classified all rules concerned with criteria for inscribing and deleting sites from the WHL and List of World Heritage in Danger as substantive (dummy variable=1), while all remaining rules (i.e. monitoring, reporting, procedures, schedule, financial assistance, etc.) as procedural (dummy variable=0).

Second, following previous studies (e.g. Beck & Kieser, 2003; March et al., 2000), we wanted to capture the effect of the age of the rule system. However, we found that including this variable as a simple clock led to collinearity problems. In response to these problems we constructed a rule-specific variable as a way of capturing the aging of the rule system, namely rule system age at the time of rule birth. Using this variable is also consistent with the idea that rules that were created together belong to the same ‘cohort’, and thus allows us to capture an important dimension of heterogeneity in our rule population. The variable simply measures the number of years elapsed between 1977 (the emergence of the rule system) and the birth-year of a given rule, and is constant over time.

Other control variables. We controlled for growth in UNESCO total budget (in millions), a measure of the financial resources available to the organization, including any potential slack resources. Previous research found that financial resource scarcity (the

opposite of slack) was associated with higher rates of structural and process change in organizations (Koberg, 1987). The budget data was taken from the UN yearbook. UNESCO adopts its budget biannually for the coming two years.²⁰ The mandatory contributions of States Parties to the World Heritage Fund is always equal to one per cent of their contributions to the regular budget of UNESCO. Thus, this variable captures not only the funds available to UNESCO as a whole, but also the funds allocated to the World Heritage. As with the other growth variables, we used the simple difference between consecutive biannual budgets as a measure of budget growth for that biennium. To obtain an *annual* measure of growth, the difference between consecutive biannual budgets is divided by two, so that one half is recorded for the current year, and another half is recorded for following year. This interpolation is done for smoothing and captures the intuition that it takes some time before the *full* effect of any change in budget is felt, since the budget is set for the next two years. Unlike staff size, the biannual budget exhibits positive growth over the observation period, apart from a sharp fall in 1983, around the time when the United States stopped paying its contributions and withdrew from UNESCO (but not from the WHP).

We also included two variables to control for the output of Advisory Bodies to the Committee, which may exert an institutional influence on World Heritage rule changes. Previous research has found support for institutional effects on rule change (Zhou, 1993). The Advisory Bodies to the Committee are explicitly recognized in the WHC enables them to exercise a normative institutional influence (DiMaggio & Powell, 1983) on the Committee's work. We used the output IUCN and ICOMOS, as manifested in key policy

²⁰ With the exception of year 1981, when the budget was adopted for the coming three years.

documents of these organizations, as a proxy for this institutional influence. While these policy documents, such as resolutions and charters, do not have a legally binding status for the Committee, they may still serve as guidelines for its decisions, such as rule change. These documents represent consensus among experts from various countries on matters relating to cultural and natural heritage. Thus, we included the number of resolutions passed by the IUCN in a given year, which focus on natural heritage, as well as the number of charters adopted by ICOMOS in a given year, which relate to cultural heritage. The data were gathered by examining the documents published on these organizations' websites.

In order to eliminate causal concerns, all time-varying covariates were lagged by one year (t-1). This is in line with previous research on rule change (e.g. March et al., 2000) and legal change (Van Witteloostuijn & De Jong, 2008).

5.5 Results

Table 5.1: Descriptive statistics and correlations for variables used in models of time until rule change

Variable	Mean	SD	Min.	Max.	1	2	3	4	5
1. Change in staff	-35.39	103.43 9	-231	168	1				
2. Sites inscribed	28.14	12.808	0	61	0.0826*	1			
3. Change in number of States Parties	5.43	2.367	1	9	0.0560*	-0.3857*	1		
4. Committee turnover	0.4011	0.324	0	1	-0.2805*	0.0634*	0.1512*	1	
5. Mean cultural distance	1.916	0.242	1.42	2.74	0.1030*	0.4550*	-0.2760*	0.0149*	1
6. Mean GDP of Committee members (ln)	6.049	0.620	4.94	7.03	0.2587*	0.2615*	-0.1843*	0.0249	0.6415*
7. Sites of Committee members (%)	0.369	0.117	0	0.67	0.2344*	0.0870*	0.1072*	0.1324*	0.1682*
8. Rule system age at rule birth	7.328	6.465	0	22	-0.0344	0.1763*	-0.1597*	-0.0543*	0.2908*
9. Substantive rule (dummy)	0.217	0.412	0	1	-0.0321	0.0175	-0.0265	-0.0168	0.0329
10. Change in budget (millions \$)	14.72	52.258	-125.26	107.46	0.3134*	-0.0565*	0.2097*	-0.0722*	-0.2426*
11. IUCN resolutions and recommendations	24.18	38.562	0	118	0.4155*	0.2229*	-0.4634*	-0.4990*	0.1017*
12. ICOMOS charters	0.32	0.710	0	3	0.1116*	0.1006*	-0.2376*	-0.028	0.1744*

* p < 0.05

Table 5.1 (Continued): Descriptive Statistics and Correlations for Variables Used in Models of Time until Rule Change

	6	7	8	9	10	11
6. Mean GDP of Committee members (ln)	1					
7. Sites of Committee members (%)	0.4066*	1				
8. Rule system age at rule birth	0.2189*	-0.1032*	1			
9. Substantive rule (dummy)	0,0219	-0.0349	0.2005*	1		
10. Change in budget (millions \$)	0.1515*	0.1644*	-0.0312	-0.0182	1	
11. IUCN resolutions and recommendations	0.2142*	0.0333	0.0602*	0.0088	-0.0184	1
12. ICOMOS charters	-0.0069	-0.1469*	0.1092*	0.0118	-0.0047	0.0054

* p < 0.05

Descriptive statistics and the correlation matrix for all variables are given in **Table 5.1**. As already mentioned, the total number rules created between 1977 and 2004 as part of the Operational Guidelines document was 180, of which 22% were substantive, and the remaining 78% procedural. Most of the rules (72%) experienced at least one change (revision or suspension) during the observation period, and the total number of changes that we observed was 186. The mean number of changes to a rule was 1.3, while the maximum number of changes was seven.²¹ As in previous research (e.g., March et al., 2000), the vast majority of rule changes were revisions (81%), while the proportion of suspensions was much smaller (19%). In total, only 21% of all rules were suspended before the end of the observation period. The mean rule version age, was 6.9 years (SD=5.7), while the maximum was 27 years (i.e. the whole observation period).

21 Compare, for example, with Beck and Kieser's (2003: 802) study, where the mean number of changes was 2.4, while the maximum was 50. The difference in the maximum has to do with the fact that UNESCO's WHP's Operational Guidelines were revised much more rarely than the personnel rules of the Bank studied by these authors.

Table 5.2: Log-logistic AFT Models of Time until Rule Change, 1977-2004

	Model 1	Model 2	Model 3	Model 4
Technical factors				
Change in staff		-0.005*** (0.001)		-0.003*** (0.001)
Sites inscribed		-0.057*** (0.007)		-0.043*** (0.004)
Change in number of States Parties		-0.383*** (0.035)		-0.038 (0.035)
Political factors				
Committee turnover			-0.082 (0.227)	0.130 (0.217)
Mean cultural distance			0.625 (0.735)	2.747*** (0.796)
Mean GDP of Committee members (ln)			-0.400*** (0.123)	-0.213 (0.136)
Sites of Committee members (%)			-9.217*** (1.818)	-5.678** (2.454)
Controls				
Rule System Age at Rule Birth	0.071** (0.030)	0.023 (0.025)	-0.004 (0.028)	-0.011 (0.026)
Substantive rule	0.033 (0.209)	0.066 (0.170)	0.068 (0.148)	0.062 (0.142)
Change in budget	-0.006*** (0.002)	-0.001 (0.001)	-0.002 (0.001)	-0.001 (0.002)
IUCN resolutions and recommendations	0.014*** (0.003)	0.020*** (0.004)	0.013*** (0.003)	0.015*** (0.003)
ICOMOS charters	0.261*** (0.053)	0.340*** (0.069)	0.030 (0.074)	0.435*** (0.097)
Constant	3.752*** (0.152)	7.298*** (0.386)	8.408*** (2.543)	2.994 (2.739)
Gamma	0.839*** (0.033)	0.690*** (0.042)	0.621*** (0.052)	0.587*** (0.050)
Observations	2,916	2,916	2,916	2,916
Log-likelihood	-763.93	-672.46	-666.76	-622.41
Chi-square [†]	82.42***	265.36***	276.76***	365.46***
Degrees of freedom	5	8	9	12

Robust standard errors in parentheses

[†] Likelihood ratio comparing the focal model to the model without any covariates

*** p<0.01, ** p<0.05, * p<0.1

Table 5.2 presents log-logistic accelerated failure-time models of rule change. Model 1 shows the effect of control variables only, while in Models 2 and 3 technical and political covariates are added, respectively. Finally, in Model 4 both sets of covariates, as well as controls, are entered simultaneously in a full model. Note that the fit of Model 4 is significantly better compared to when either set of covariates is included separately (see Models 2 and 3). The likelihood ratio that compares Models 2 and 4 is $-2(-672.46+622.41)=100.1$, which is significant ($p<0.01$, 4 degrees of freedom). The likelihood ratio that compares Models 3 and 4 is $-2(-582.58+565.28)=88.7$, which is again significant ($p<0.01$, 3 degrees of freedom).

The results broadly support a model of bureaucratic change in which both technical and political factors play a role. In Model 4, two of the three technical covariates and two of the four political covariates show significant effects ($p<0.05$), which suggests that neither set of effects is epiphenomenal relative to the other. Overall, Model 4 provides support for four out of seven hypotheses regarding the predicted direction of the effects of the various factors. Considering technical factors first, change in staff appears to reduce time until rule change ($p<0.01$), supporting hypothesis 1a. Similarly, the number of sites inscribed, has a significant ($p<0.01$) and negative effect on event-time, supporting hypothesis 2b. Inscribing more sites on the WHL appears to shorten the time until the next rule change. Hypothesis 1c, however, is not supported in this model; growth in the number of States Parties to the WHC appears to have no significant effect on time until rule change rather when controlling for political factors. Thus, for two out of three aspects of organizational growth, the results seem to suggest that organizational rule systems seem to become more unstable following periods of positive growth.

Turning now to political covariates in Model 4, the political perspective receives mixed support. Specifically, the coefficient of turnover of States represented on the Committee is positive and not statistically significant. Hypothesis 2a, which predicted a negative effect of turnover on time until rule change, must therefore be rejected. The effect of average cultural distance (a proxy for heterogeneity) on event-time is positive and significant ($p < 0.01$), supporting hypothesis 2b. When the average cultural distance among the States represented on the Committee becomes higher, rule change is delayed. Contrary to hypothesis 2c, (natural log of) mean GDP of Committee members has no significant effect on event-time in this model, even though the negative sign of the coefficient is in line with our prediction (see also Model 3). On the other hand, the overall normative power or prestige of Committee Members, measured by the percentage of sites that they have been able to inscribe on the WHL since the WHC entered into force, seems to have a significant negative effect on event-time ($p < 0.05$). Thus, rules appear to change in response to the interests of States with greater normative power, in line with hypothesis 2d. Overall, these findings provide support for the influence of both technical and political factors, notably rule-makers' heterogeneity and normative power, with respect to the latter.

Models 2 and 3 examine the influence of technical and political factors separately. Both models show a significant ($p < 0.01$) improvement in fit compared to when only control variables are included. The respective likelihood ratios comparing these models to Model 1 are $-2(-763.93+672.46)=182.94$ and $-2(-763.93+666.76)=194.34$. Interestingly, the results for political factors differ between Models 3 and 4. Specifically, in Model 3, the coefficient of average cultural distance is no longer statistically significant. At the same time, the coefficient of the variable measuring mean GDP of the States members of the Committee is significant in this model ($p < 0.01$). The coefficient is negative, suggesting

that participation of states with a higher level of remunerative power tends to accelerate rule change, as per hypothesis 2c. The other results for political covariates remain the same. The results for technical covariates do not change between Models 2 and 4, with the exception of the variable measuring change in the number of States Parties to the WHC, which is significant ($p < 0.01$) in model 2. The coefficient is negative, in line with hypothesis 1c.

The results for the control variables (Model 1) are also noteworthy. Positive and statistically significant ($p < 0.01$) parameters of IUCN and ICOMOS outputs indicate that these institutional variables extend the time until a rule is changed. This is surprising, since we expected them to have the opposite effect. A possible explanation of this unexpected finding could be that the charters, resolutions and recommendation adopted by the advisory bodies act as a kind of substitute for changes to the Operational Guidelines (cf. March et al., 2000: 59). The slope parameter, γ , is significant ($p < 0.01$) and smaller than 1, which indicates that the hazard of rule change first increases with time (since rule birth or previous revision), and then falls. This is in line with a study by Schulz (1998b), who argued that the hazard of rule revision should increase with time (due to rule obsolescence), but at a decreasing rate, and found some empirical support for this based on the same dataset used by March and associates (2000). Beck and Kieser (2003) also found a similar effect using a different dataset. The models used by these authors differed from ours, however. They included natural log of version age directly as a covariate in an exponential model.

5.6 Discussion and conclusion

The findings of this study suggest that both the technical and political perspectives are necessary in order to understand why bureaucratic organizations change their rules and when they will be more likely to do so. With regard to technical contingencies, we found that the formal rules of UNESCO's World Heritage Program were more likely to change following larger increases (or smaller decreases) in organizational size, and specifically in the number of administrative staff and amount of service output. With regard to political factors, we found that rule makers' cultural heterogeneity delayed rule changes, while rule makers' normative power accelerated them.

Our study makes three contributions to research on bureaucratic rule change and organizational change more broadly. First, we extend earlier models of rule change, which focused primarily on the effects of the characteristics of individual rules and the broader rule system, such as rule age and the number of rules (Beck & Kieser, 2003; March et al., 2000), by incorporating the influence of the rulemaking body. We do so by drawing on the literature on organizational politics and upper echelons (e.g., Finkelstein, 1992; Hambrick & Mason, 1984; Ocasio, 1994). Although not all of our predictions regarding the effects of political factors were fully supported, our results do suggest that the incidence (or at least the finalization) of rule changes is dependent on the power and heterogeneity of actors participating in the rulemaking process. The fact that these political covariates continue to have a significant effect even when controlling for a number of technical, rule-specific and institutional forces calls into question the assumption that the behavior of actors responsible for adjusting organizational structure is limited to mere mediation of the effect of technical contingencies (Donaldson, 2001), institutional forces (DiMaggio & Powell,

1983) or processes associated with time-dependence of rule change, such as experiential learning or institutionalization (Beck & Kieser, 2003; March et al., 2000; Schulz, 2003).

Second, and more broadly, the renewed emphasis on the political dimension of rulemaking has implications for bureaucracy theory (e.g. Heugens, 2005; Walton, 2005; Weiss, 1983). Our findings suggest that the influential Weberian image of bureaucracy as an ‘iron cage’ that constrains its officials, subjecting them to the disciplining logic of technical rationality (Weber, 1978), needs to be reconsidered. The very bars of the iron cage, which are formed by rational-legal rules, can be altered by bureaucratic officials with sufficient power to do so.. This revised image of bureaucracy sheds new light on some of this form’s well-known dysfunctions. Clearly, the operation of bureaucracies can be hampered by the failure to implement timely repairs to rules as they are becoming obsolete or inappropriate for the task at hand (Schulz, 2003), which is a form of bureaucratic inertia (Hannan & Freeman, 1984; Merton, 1940). Such inertia might be linked to technical factors, such as organizational size and age (Hannan & Freeman, 1984; Haveman, 1993), but also to political factors, such as administrators’ vested interests in existing rules (Walsh & Dewar, 1987). Our results provide partial support the idea that delays in rule change are sometimes caused by the political side of bureaucracy, and in particular, cultural heterogeneity among rule makers. Yet, they also challenge “the received understanding of power as a source of inertia” (Barnett & Carroll, 1995: 222) by showing how rule makers’ power in formal decision making meetings actually enables rule change.

Third, and finally, our arguments and analyses contribute to technical and political approaches to organizational change (e.g. Haveman, 1993; Goodstein & Boeker, 1991; Greve & Mitsuhashi, 2007) by developing and testing the implications of these approaches for incremental organizational change. Incremental or piecemeal change in

organizations is largely neglected in this literature, perhaps because it is seen as rather mundane or trivial (but see March, 1981) or because normative theories of organizations have emphasized the virtues of radical change vis-à-vis incremental change (Miller & Friesen, 1982). Apart from research into rule change (e.g. March et al., 2000) and job change (Miner, 1991) in organizations, studies of incremental organizational change remain by and large confined to the qualitative research tradition in administrative science (e.g., Blau, 1955; Howard-Grenville, 2005). Our results indicate that some of the arguments in previous research concerning the effects of size (Haveman, 1993), decision maker heterogeneity (Goodstein et al., 1994) and power (Greve & Mitsuhashi, 2007) that explicitly or implicitly focused on radical change, also generalize to incremental change. However, we did not find a significant effect of decision maker turnover, even though this factor is highlighted in the literature on organizational change during turnaround (Barker III, Patterson Jr, & Mueller, 2001). These results point to the need to further test the robustness of change theories across different types of change.

5.6.1 Limitations and Future Research

Naturally, our study has a number of limitations that are important to bear in mind when considering its results. First, the admittedly unconventional research setting of UNESCO's World Heritage program can raise concerns about the generalizability of our findings to other kinds of bureaucratic organizations. While we cannot rule out the possibility that some of our findings may indeed be specific to our research setting, the fact that our most important findings regarding the effects of heterogeneity and power are in line with previous research (e.g., Goodstein et al., 1994; Van Witteloostuijn & De Jong, 2008) give us some confidence in their generalizability. Moreover, the factors that we examined in

this study, such as organizational growth and decision makers' turnover, heterogeneity and power can be expected to be relevant for rulemaking in any organization, and indeed for other forms of incremental formal change, such as changes in organizational jobs (Miner, 1991) and possibly even adoption of incremental workflow-process innovations (e.g., Adler & Borys, 1996). Future research can build on our study by exploring these possibilities.

Second, while we would have welcomed the opportunity to replicate our results based on another body of rules from a different program of UNESCO in order to increase their credibility, we were unable to find a body of rules, the history of which was nearly as well-documented in the organization's archive as that of the World Heritage Operational Guidelines. Thus, we were forced to rely on a single case, albeit with multiple observations over time and across sub-units (i.e. rules).

Third, the data imposed some limitations on the analyses that we were able to perform. For example, we would have liked to include additional control variables, especially those capturing the heterogeneity among individual rules in terms of their content or subject matter (cf. Beck & Kieser, 2003), but the limited number of rules in the Guidelines meant that we could not include these variables. The limited length of the observation period and the fact that we were forced to use annual spells similarly meant that we could not include additional time-varying covariates. This may also explain why some of the variables are no longer significant in the full model. Moreover, we were forced to exclude measures of rule mass (Beck & Kieser, 2003) and absolute measures of organizational size due to collinearity problems. Future research may provide a more fine-grained perspective on rule change by differentiating between revisions and suspensions (Schulz, 2003) or by considering different kinds of revisions, which we again were unable to do due to the limited number of observations.

Fourth, as is often the case with archival research on organizational rules (March et al., 2000), it is difficult to rule out alternative explanations for our findings, which may be at odds with those that we provided as part of the argumentation for our hypotheses. For example, more rule change may follow Committee sessions, in which participants have a higher representation on the WHL, not because such representation gives them normative power, but because the participants have a greater stake in the content of the Guidelines (e.g. the need for international assistance in maintaining and conserving the properties), which makes them more likely to push for rule changes. Similarly, the causal mechanism responsible for the effect of growth in service output on rule change may not involve generation of organizational problems, as we argued, but some other unobserved process.

Many of the issues raised by our study can be addressed by future research. For instance, while we have shown that political factors matter for change, we did not differentiate between their effects on the *content* of change and the *process* of change (Barnett & Carroll, 1995: 219). Thus, we cannot rule out the possibility that political factors mainly affect the timing of change, while the substantive nature of what is changed remains more or less determined by technical considerations (Donaldson, 1987: 20). Further research is therefore needed not only to test whether the influence of political factors can be sufficiently strong to push the organization away from the change path predicted by theories focusing on organizational adaptation to task-environmental contingencies (cf. Child, 1972b), but also to uncover the organizational and environmental conditions that are especially conducive to politically-driven organizational change. Despite the prominence it gained in the early 1980s (e.g. Pfeffer, 1981) and its incorporation into the more recent neo-institutional research program (e.g., Greenwood & Hinings, 1996), the political perspective has still not achieved consistent recognition as an

independent framework for explaining organizational change (e.g., Barnett & Carroll, 1995). At least one likely reason for this is the paucity of studies that explicitly test this perspective against competing theories (but see Hage & Dewar, 1973). We hope that our study would encourage future efforts in this direction.

Future research could also explore potential interactions between technical and political factors, which we did not examine in this study. For example, it may be possible to develop proxies for the vesting of interests in certain rules, and then test whether rules with higher levels of vested interests are less likely to change in response to technical factors (Walsh & Dewar, 1987). A related question is whether the influence of political sources of inertia increases in the later stages of the rule system's history, as argued by Walsh & Dewar (1987). It is also important to explore interactions between political and institutional factors affecting rule change as part of the broader research effort aimed at achieving closer integration between these two perspectives (Greenwood & Hinings, 1996; Thornton, & Ocasio, 1999). Some progress in this direction has already been made in a recent study of rulemaking by Sullivan (2010), which combined factors related to organizational attention and institutional factors, like legislation, court cases and media exposure. And while allocation of attention by the upper echelon is certainly a key part of the political process in any organization (Ocasio, 1997), factors highlighted in this study, like actors' power and heterogeneity, cannot be left out of the picture if we are to understand how political, technical and institutional factors combine or clash in generating organizational inertia or change.

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Summary (Dutch)

Theoriën in organisatiewetenschappen vormen een perspectief waarin formele of geschreven regels worden gezien als zijnde fundamenteel voor het inzicht in een organisatie. Betoogd wordt, bijvoorbeeld, dat formele regels organisatorische besluitvorming faciliteren, dat ze de basis voor coördinatie en controle vaststellen, en dat ze de geldigheid van een organisatie binnen de bredere institutionele omgeving helpen te vergroten. Zoals andere elementen van organisaties, veranderen ook de regels na verloop van tijd met mogelijke consequenties voor besluitvorming, coördinatie en geldigheid. Deze dissertatie neemt vragen op over de oorzaken van continuïteit en verandering van formele organisatorische regels, alsmede over bureaucratische organisatievormen in de bredere zin. Daarom is het bredere doel van deze dissertatie ons begrip van de dynamiek van bureaucratie, en van formele organisatorische regelsystemen in het bijzonder, te doen vooruitgaan.

Het onderwerp over bureaucratische dynamiek blijft relevant, omdat organisatorische kenmerken die geassocieerd worden met bureaucratie, zoals specialisatie, hiërarchie, en vooral formalisering, overal in hedendaagse geïndustrialiseerde samenlevingen blijven. Elementen van bureaucratie kunnen gevonden worden in een deelverzameling van Silicon Valley high-tech bedrijven (Baron, Burton, and Hannan, 1999), in een software-ontwikkeling bedrijf (Adler, 2005), en een groot consultatie bedrijf (Kärreman, Sveningsson, & Alvesson, 2002). In hun studie van een Duitse bank identificeerden Beck en Kieser (2003) 246 verschillende personeelsregels en vonden dat deze ongeveer 655 keer waren veranderd in een tijdspanne van slechts 18 jaar, wat

aangeeft dat aanpassing van bureaucratische structuur in geen geval een triviale taak is voor bedrijfsorganisaties.

Zoals reeds vermeld, de reikwijdte van deze dissertatie zal voor het grootste deel beperkt zijn tot de antecedenten van de dynamiek van de bureaucratie/regels (in tegenstelling tot de resultaten ervan). Bij het onderzoeken van zulke antecedenten, zal speciale aandacht worden besteed aan de rol van actoren. Veel studies naar de dynamiek van formele organisatie presenteren nog steeds een ietwat passieve weergave van actoren, in de zin dat actoren impliciet worden verondersteld de formele structuur slechts aan te passen in reactie op diverse organisatorische en omgevings omstandigheden zoals verandering van omvang van de organisatie, onzekerheid in de omgeving, regel veroudering, vallende prestaties, institutionele eisen, enzovoorts (bijvoorbeeld March, Schulz, & Zhou, 2000), wat de indruk geeft van passiviteit aan de zijde van actoren in het bemiddelen van de effecten van deze beperkingen. Verschillende hoofdstukken in deze dissertatie zijn het niet eens met deze (impliciete) weergave van actoren.

Onze geprefereerde theoretische strategie, welke is geïnspireerd door het structuur en agentschap debat in organisatorisch institutionalisme (bijvoorbeeld DiMaggio, 1988; Heugens & Lander, 2009), is het verleggen van de focus van de uitleg van de omgevings en organisatorische omstandigheden en beperkingen van welke worden aangenomen onomwonden bemiddeld te worden door reactie van actoren, naar het bemiddelings-proces zelf. We focussen op de meer "actieve" verklarende rol van actoren door het wijzen op de causale relevantie van hun belangen en strategische activiteiten (hoofdstuk 2), reflexiviteit (hoofdstuk 4) en het vermogen macht uit te oefenen bij het nastreven van conflicterende belangen (hoofdstuk 5).

Een andere bijdrage van deze dissertatie is het verder ontwikkelen van bepaalde bestaande concepten, alsmede het introduceren van een aantal nieuwe, en te pleiten voor het nut van deze concepten denkend aan bureaucratie en regels. Bijvoorbeeld, hoofdstuk 2 ontwikkelt het concept van persistentie van organisatievormen (bureaucratische vormen in het bijzonder) door onderscheid te maken tussen drie paden van persistentie. Hoofdstuk 3 ontwikkelt het concept van de geheugen functie van de formalisering, wat manieren voorstelt variatie in de sterkte van deze functie uit te leggen. Hoofdstuk 4 gaat over Schulz (1998a) zijn idee dat regels problemen kunnen absorberen en biedt een uitgebreide analyse van het 'probleem absorbtie' proces en de gevolgen hiervan. Door de gehele dissertatie, proberen wij te werken met een breed scala aan theoretische perspectieven en literatuur, in plaats van het beperken van het toepassingsgebied van de dissertatie tot een welomschreven onderzoeksprobleem, of theoretische traditie.

De vier belangrijkste hoofdstukken die deze dissertatie omvatten nemen tamelijk verschillende benaderingen van het onderwerp van bureaucratie dynamiek aan en kunnen onafhankelijk van elkaar gelezen worden. De eerste drie grote hoofdstukken zijn conceptueel, terwijl hoofdstuk 5 een longitudinale empirische studie van de regel dynamiek bij een intergouvernementele organisatie (UNESCO Werelderfgoed programma) is.

Hoofdstuk 2 behandelt het lot van de bureaucratie organisatievorm, welke kan worden geïnstantieerd door meerdere organisaties, op het macro-maatschappelijke niveau. Naar aanleiding van de institutionele opvatting dat samenlevingen meerdere organisatorische velden omvatten (DiMaggio & Powell, 1983), suggereert het dat het lot van de bureaucratie kan verschillen tussen deze velden. De centrale bewering van het hoofdstuk is echter dat bureaucratie blijft, of blijft heersen als een organisatievorm in veel

van deze velden, en dus in de samenleving in het groot. Echter, tegelijkertijd met volharding, kan een bureaucratievorm ook een bepaalde graad van transformatie ondergaan, die aanleiding geeft tot verschillende 'persistente paden'. Het falen van veel velden om te de-bureaucratiseren (dwz bureaucratische persistentie) samen met een aantal veranderingen aan de vorm zelf welke het mogelijk maken te volharden (dwz persistentie paden) zijn de twee dynamiek speerpunten die dit hoofdstuk behandelt. Het spoort de antecedenten van deze dynamiek aan de institutionele inbedding en politieke interacties van verschillende professionele / deskundige groepen in de laat-industriële samenlevingen, op.

In de andere drie hoofdstukken is het niveau van de analyse een enkele organisatie. Deze hoofdstukken houden zicht bezig met wat er gebeurt binnen een organisatie dat een aantal kenmerken van bureaucratie laat zien, zoals formele regels en hiërarchie. Het dynamiek speerpunt in hoofdstuk 3 is het gehele proces van formalisering, welke zowel de vaststelling en wijziging van een organisatorisch regelsysteem via codificatie, als het handhavingsproces gericht op het verbinden van regels tot actie. Dit hoofdstuk richt zich op de consequenties van dit proces voor organisatorisch geheugen. In het specifiek, we identificeren een aantal factoren dat invloed heeft op de capaciteit van formele regels en regel-achtige documenten zoals procedures en handleidingen om gegevens uit het verleden te bewaren zodat het gebruikt kan worden in toekomstige besluitvorming. Wij bieden een aantal onderzoeksvoorstellen aan om onze bredere bewering te illustreren dat het vermogen van formele systemen dienend als bewaarplaatsen van organisatorisch geheugen afhangt van de verschillende activiteiten van het formaliserings proces. De ideeën die zijn ontwikkeld in dit hoofdstuk kunnen toekomstig onderzoek informeren over formele regels en organisatorisch geheugen.

Hoofdstuk 4 gaat verder met het thema van regel-gebruik waar al op wordt gewezen in hoofdstuk 3. Tsoukas en Chia (2002) nagaande, pleiten we in hoofdstuk 4 dat het gebruik van formele regels een belangrijke dynamiek genereert, namelijk wijzigingen van de categorieën van deze regels. We indentificeren probleem-absorptie (Schulz, 1998a) als de voornaamste bron van zulke wijzigingen. In tegenstelling tot eerdere literatuur, die stelt dat probleem absorptie bijdraagt aan de stabiliteit van formele regels, pleiten wij ervoor dat, vanwege het effect dat het heeft op de categoriën, het ook kan leiden tot veranderingen in de werkelijke tekst van formele regels onder bepaalde voorwaarden. Dus het hoofdstuk behandelt ook een andere dynamiek, namelijk formele regel-wijziging (herziening of schorsing). Verbindingen met het concept van organisatorisch leren zijn ook gemaakt in dit hoofdstuk.

Hoofdstuk 5 tenslotte kijkt weer naar formele regel-wijziging als het dynamisch speerpunt, onderzoekend hoe het wordt beïnvloedt door verschillende antecedenten (vgl. Beck & Kieser, 2003). De antecedenten behandeld in dit hoofdstuk omvatten verschillende aspecten van organisatorische groei, evenals kenmerken van het orgaan dat de regels opstelt. De empirische context voor dit hoofdstuk is het UNESCO Werelderfgoed Programma. We verzamelden archief data over de evolutie van een specifiek regel-boek, te weten de Operationele Richtlijnen voor de implementatie van het Wereld Erfgoed Verdrag, tussen 1977 en 2004. We maken onderscheid tussen twee theoretische perspectieven op organisatorische verandering, namelijk het technische en het politieke perspectief, en ontfenen een aantal hypothesen over de antecedenten van regel verandering op de basis van deze perspectieven. Deze hypothesen zijn vervogens getest door het toepassen van de statistische technieken van de analyse van de geschiedenis van gebeurtenissen op de UNESCO data.

Kortom, deze dissertatie analyseert verschillende vormen van bureaucratische dynamiek en ontwikkelt een aantal verklaringen van deze dynamiek. Twee van deze verklaringen zijn empirisch getest. Deze dissertatie draagt bij tot het begrijpen van hoe en waarom bureaucratieën in de loop der tijd veranderen.

About the author



Sergey Osadchiy was born on September 24th. He obtained an undergraduate degree in International Business Administration from Erasmus University Rotterdam and Master of Philosophy degree in Business Research from the Erasmus Research Institute in Management (ERIM), both cum laude. During his time as a PhD candidate first at the Department of Business-Society Management and then at the Department of Organization and Personnel Management, Sergey presented his work at several international conferences, including the Academy of Management (AOM) Annual Meeting and the EGOS Colloquium. One of his papers was published in the AOM Best Paper Proceedings for 2010. Next to his research, Sergey also taught classes for an undergraduate course at the Rotterdam School of Management, Erasmus University. In his work, Sergey addresses questions about the formal side of organizations from a dynamic perspective. His main research interests include bureaucracy theory, organizational learning theory, and institutional theory.

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THE DYNAMICS OF FORMAL ORGANIZATION ESSAYS ON BUREAUCRACY AND FORMAL RULES

Theories of bureaucracy in organization studies constitute a perspective in which formal or written rules are seen as fundamental to the understanding of organization. It is argued, for example, that formal rules facilitate organizational decision-making, establish the basis for coordination and control, and help to increase an organization's legitimacy within the broader institutional environment. Like other elements of organizations, rules also change over time with potential consequences for decision-making, coordination, and legitimacy. This dissertation takes up questions about the causes of continuity and change of formal organizational rules, as well as of bureaucratic organizational forms more broadly. The first conceptual essay (Chapter 2) starts with the observation that bureaucracy is a remarkably persistent organizational form and suggests that the reproduction or transformation of this form and its prevalence in various organizational fields depends on the agency and interaction of different expert groups. In Chapter 3, we present a conceptual account of the dynamic process of codification and enforcement of formal rules and its influence on the preservation and retrieval of organizational memory via these rules. In Chapter 4, we offer a conceptual account of how the process of using existing formal rules to deal with new organizational problems can ultimately lead to change in such rules. Finally, Chapter 5 reports the results of a longitudinal empirical study of rule changes in UNESCO's World Heritage Program. We find that that rule makers' cultural heterogeneity tends to delay rule changes, while rule makers' normative power tends to accelerate them.

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