

# Adaptive governance: learning from what organizations do and managing the role they play

Kristof van Assche

*University of Alberta, Edmonton, Canada*

Vladislav Valentinov

*Leibniz Institute of Agricultural Development in Transition Economies,  
Halle, Germany, and Department of Law and Economics, Martin Luther University,  
Halle, Germany, and*

Gert Verschraegen

*Department of Sociology, University of Antwerp,  
Antwerp, Belgium*

## Abstract

**Purpose** – The purpose of this paper is to deepen the understanding of adaptive governance, which is advocated for as a manner to deal with dramatic changes in society and/or environment. To re-think the possible contributions of organizations and organization theory, to adaptive governance.

**Design/methodology/approach** – Based on social systems theory this study makes a distinction between “governance organizations” and “governance communities.” Organizations are conceptualized as the decision machines which organize and (co-)steer governance. Communities are seen as the social environments against which the governance system orients its operations. This study considers the adaptive mechanisms of organizations and reflect on the roles of organizations to enhance adaptive governance in communities and societies.

**Findings** – Diverse types of organizations can link or couple in different ways to communities in their social environment. Such links can enhance the coordinative capacity of the governance system and can also spur innovation to enable adaptation. Yet, linking with communities can also slow down responses to change and complexify the processes of deliberation in governance. Not all adaptive mechanisms available to organizations can be used in communicating with communities or can be institutionalized, but the continuous innovation in the field of organizations can inspire continuous testing of small-scale adaptive mechanisms at higher levels. Society can thus enhance its adaptive capacity by managing the role of organizations.

**Originality/value** – The harnessing of insights in organization theory and systems theory for improving understanding of adaptive governance. The finding that both experiment and coordination at societal level are needed, toward adaptive governance, and that organizations can contribute to both.

**Keywords** Public policy, Qualitative research, Complex adaptive systems, Self-organization, Adaptive governance, Adaptation, Organization, Differentiation, Coordination, Experiment

**Paper type** Conceptual paper



---

## Introduction: Adaptive governance and environmental turbulence

At an abstract level, organizing can be seen as an attempt to convert environmental turbulence and uncertainty into predictability and routines (Luhmann, 1964, 2018). Traditional bureaucracies, for instance, have been rather successful in upholding an image of orderly and integrated rational decision machines which transform uncertainty into certainty and effectively control their internal and external environments. Yet, it is well-known that the bureaucratic image projects much more stability, rationality and integration than there actually is and exaggerates the organizational capacity to effectively control its internal and external environments. In fact, organizations would have a hard time to adapt to a changing environment that eludes its direct control by just enforcing their purely rational, bureaucratic or formal order. Already in his first works, systems theorist Niklas Luhmann (1964) gave the example of how organizations that attempt to enforce a formal order and effectively forestall all deviant or 'illegal' acts run into significant problems of adaptation to their social environment, as they are not able to keep up with environmental turbulence and the contradictory demands it places upon them. Hence, organizations build up and use informal means to solve adaptive problems that cannot be addressed by formal structures, yet are crucial to the success of the organization.

These early insights of Luhmann point to a more general issue, which is the precarity or 'sensitivity' of organizations because of the critical dependencies on their environments. Organizing and, in a broader sense, governing are, by and large, improbable and never finished, as organizations are continuously challenged by uncertainties, both in their internal environments (e.g. motivational constraints, intra-organizational conflicts) and external ones (e.g. technological and competitive challenges). These challenges become more outspoken as society differentiates and environmental turbulence increases. As environments change, management and governance have to become 'adaptive.' They have to become more sensitive to change in their environments, knowledge and learning become more important. Organizations or suborganizations, for instance, have to 'learn' how to adapt by searching for and recognizing novel information in their environments so they can anticipate changes and pressures coming from different sources. In fact, existing organizations are adapted to their environment in some way, otherwise, they would not be there anymore.

In differentiated, late modern societies, learning to adapt is a continuous challenge. As argued by Valentinov (2014, p. 14), "the growing systemic complexity entails the increasing risk that systems develop insensitivity to those environmental conditions on which they critically depend." Quite often, a low sensitivity to the environment engenders systemic sustainability problems. It is noteworthy that Luhmann considered system-environment relations to be generally precarious, and illustrated this precariousness, among other things, by the ongoing ecological crisis (Luhmann, 1989). While the ecological crisis reflects the problems of ecological sustainability, the modern challenges of social sustainability are no less prominent. Many of these challenges take the form of a precarious relationship of social systems, particularly organizations, to the social communities to which they are related. A precariousness of system-environment relations may thus indicate a precariousness of both organizations and communities, relative to each other. The core task of adaptive governance, for both organizations and communities, is to navigate and overcome the precariousness.

In this article, we will hence focus on how organizations in our late modern societies overcome precariousness by adapting and developing a 'sensitivity' to the diverse communities in their social environments. While adaptation to ecological and material environments is hugely important and intertwined with 'social adaptation' we will spend less attention to it here [see however, van Assche *et al.* (2019)]. More precisely, we will

---

explore how governance organizations can link up with the ‘communities’ in their environments and what we can learn from this. Based on a broad literature in systems theory, we will conceptualize governance systems as containing ‘organizations’ which communicate “decisions” necessary to steer governance (Luhmann, 2018) and ‘communities’ which we define as the social environments for organizations, against which the governance system orients its operations.

Our endeavor to think through the relation between ‘governance organizations’ and ‘governance communities’ presents a systems theoretical complement to an extensive literature in the theory of organizations and management about ‘adaptive governance’ which involves resilience, local participation, learning, multi-level nesting and polycentricity. In various ways, each of these concepts refers to the activation of the various channels of organizations’ grounding in their social communities with a view to helping organizations to harness the vital human, cultural and moral resources which the communities offer. We believe the theory of adaptive governance, which finds its roots in the theory of social-ecological systems, and, ultimately, in an expanded ecology, can benefit from a deeper engagement with the world of organizations, and their modes of adaptation.

Society can learn from how organizations adapt but it can also enhance its own adaptive capacity by managing the role of organizations. We explore how organizations also play roles, which contribute to the adaptation of communities and societies. Quickly, we find out that organizations also function as obstacles for adaptation and for strategies of adaptive governance. Communities and encompassing societies can thus benefit from a double learning process regarding organizations: from their modes of adaptation, and from their potential to enhance adaptation in governance.

To map out the terrain between ‘governance organizations’ and ‘governance communities,’ we thus build on insights from systems theory and believe such mapping is useful to envision the roles of organizations in society, the nature of governance, and the possibility to learn, in governance, from adaptive mechanisms used by organizations. In the next section, we position our endeavor within the broader literature. We explain our systems theoretical use of the key notions governance, organizations and communities, after which we take a closer look at the by now classical version of adaptive governance. Then, a discussion of adaptive mechanisms in organizations follows, and a consideration of the roles of organizations in society, again inspired by systems theory. This leads into a discussion of the possibilities to learn from the adaptation in organizations, toward adaptive governance of societies, and a coupled reflection on the possibilities to manage the role of organizations in society, toward enhanced adaptive capacity.

### **Governance, organization and community: a systems theoretical view**

Our endeavor to learn from how organizations adapt to complexifying social environments can be related to an extensive literature in sociology, policy sciences and systems theory on how organizations link to the communities in their environment and how this changes the process of governance or decision-making.

To start with we note here that Niklas Luhmann (and other major sociologists as Weber or Parsons) have theorized the co-evolution of organizations and function systems, and the rise of organizations, as essential manifestations of modernity. Throughout the process of functional differentiation, organizations have asserted themselves as an indispensable social form in a growing number of societal domains. While organizations were initially confined to the domains of religions (e.g. churches, abbeys) and politics (e.g. military organizations, public administration authorities), they are now omnipresent in all other domains as well (e.g.

---

science, education, arts, economy, health, etc.). What is important for our purposes here, is that, over time, the relations between organizations and their social environments have become much more complex. While these relations were traditionally be seen as relatively simple – that is as a question of relatively unambiguous relations of political authority, legal agreements or market relations, Luhmannian systems theory offers a good optic to think through how the interrelations between organizations and their environments have grown decisively more complex and ambiguous throughout the process of modernization. We will elaborate on this argument both on the level of general systems theory and on the level of the theory of modern society.

First, at the level of general systems theory, both organizations and function systems present major varieties of social systems fulfilling the function of complexity reduction (Luhmann, 1995). While this function is crucial for enabling social systems to accumulate and process considerable internal complexity, it may render them limitedly sensitive to the complexity of their environment (Luhmann, 1989). As argued by Valentinov (2014, p. 14), “the growing systemic complexity entails the increasing risk that systems develop insensitivity to those environmental conditions on which they critically depend.” Quite often, a low sensitivity to the environment engenders systemic sustainability problems. This problem can also be usefully illuminated in terms of Valentinov and Thompson’s (2019) model of “the supply and demand of social systems.” The authors note that the Luhmannian idea of complexity reduction as a function of social systems explains the demand for social systems but sheds little light on their capacity to sustain themselves, especially if the state of environment can be taken to be hostile or turbulent. While the nature of this capacity remains arcane, Valentinov and Thompson’s (2019) associate it with the sensitivity of social systems to their critical dependencies on environment. Thus, adaptive governance gives primacy to the “supply side” of social systems and helps them to appreciate what Whitehead (1925, p. 144) called “the intrinsic worth of the environment.”

It is noteworthy that Luhmann considered system-environment relations to be generally precarious, and illustrated this precariousness, among other things, by the ongoing ecological crisis (Luhmann, 1989). While the ecological crisis reflects the problems of ecological sustainability, the modern challenges of social sustainability are no less prominent. Many of these challenges take the form of a precarious relationship of social systems, particularly organizations, with the social communities to which they relate. A precariousness of system-environment relations may thus indicate a precariousness of both organizations and communities, relative to each other. The core task of adaptive governance, for both organizations and communities, is to navigate and overcome the precariousness. It may also be useful to set this task against a more general and philosophic understanding of precariousness whose appreciation is not at all unique to Luhmann. Ludwig von Bertalanffy, a founder of the general systems theory, was struck by the insight that the existence of “organized complexity,” embodied, for example, in organic matter, cannot be reconciled with classical physics. He resolved this paradox by elaborating the concepts such as open systems, metabolism, and steady-state, which provide various perspectives on the challenge of maintaining order while keeping entropic forces at bay (von Bertalanffy, 1968). Today, these perspectives inform the idea of adaptive governance which emerges as the primary practical tool for preventing entropic disintegration of socioecological systems, organizations and communities (Armitage *et al.*, 2009; Van Assche *et al.*, 2019).

While insights from general systems theory are useful to illuminate the interrelations between organizations and their environments, it is also necessary to present some insights from sociological and organizational theory. We subscribe here to the Luhmannian point of view that organizations are specific social systems who consist

---

of an ever-renewed network of decisions; organizations are hence constituted not by bosses and employees, buildings or services, but only by communications of decisions, including for instance decision premises (e.g. earlier decisions that are binding for ensuing decisions) (Luhmann, 2018). Organizations are therefore essential in steering the process of governance, which we define here as coordination of collectively binding decisions, by actors, by means of institutions, which are understood as the coordination tools; policies, plans, laws, informal institutions. Leaning on evolutionary governance theory we consider governance as taking place in configurations of actors and institutions, including governmental and non-governmental actors, as well as actors not visible on any official flow chart of decision-making (Van Assche *et al.*, 2013; Beunen *et al.*, 2017). Governance can pertain to an area or city, a national political/administrative structure (e.g. a state), a global cluster of functional organizations but can also imply a configuration combining several of these features (Jessop, 1997; Klijn and Skelcher, 2007; Kjaer, 2014; Verschraegen, 2015).

While a Luhmannian, systems theoretical perspective can easily be used to define organizations and governance, it is less clear what to think of the notion of communities, which may indeed be felt to be marginalized, if not sacrificed (Moeller, 2011). Communities often act, for instance, as the main addressee of what is known as the “social costs” of corporate activities; they may be treated as a part of societal environment whose complexity tends to be disregarded not only by corporations but by formal organizations more generally. In this article, we subscribe to the general idea that *‘communities’ are the collectives that are addressed and tied by the collectively binding decisions of the governance system.*

In state-based governance, for instance, the ‘nation’ has traditionally been the imagined or generalized community, which is addressed by the political system in its state form. As Poul Kjaer puts it, “the nation is a conceptual form through which social complexity is reduced and the reflexivity of the state is increased at the same time, in the sense that the concept is deployed to delineate the part of the world which a political system in the nation-state form takes account of in its decision-making. The United States Congress, for example, is only obliged to take account of the impact that its decisions have on the people of the USA, and not the impact on the peoples of Canada and Mexico” (Kjaer, 2014, p. 88). Yet, when compared with classical, 19th-century nation states, most contemporary governance systems have to take into account or adapt to a much more varied set of communities. Contemporary ideas such as social responsibility or dialogue and the increasing importance of ‘stakeholders’ can be seen as response to the challenges of linking with a broad array of communities in the environment (Holmström, 2007; Valentinov *et al.*, 2019). A broad and varied literature working under headings such as ‘policy networks’ ‘reflexive governance’ or ‘reflexive law’ has also thematized this evolution toward more complex and indirect forms of steering and coordination which work through negotiating mechanisms such as committees, commissions or hybrid fora (Rhodes, 1997; Teubner, 1988; Voss and Bornemann, 2011).

In a Luhmannian reconstruction, this shift to taking into account more complex social environments can be related to the growing complexity and interdependence of global, functionally differentiated societies which motivates organizations to intensify their sensitivity to a multiplicity of functional rationales and shift to second-order observing (i.e. observe how other systems in their environment observe them). While the decision processes of important modern organizations initially predominantly (or exclusively) referred to one of society’s functional systems (courts to the legal system, firms to the market, research institution to science, etc.) the relevant social environment of organizations has become much more variegated and evolved from the internal environment – which is the market to firms, for instance – to include an increasing

---

range of 'stakeholders.' Organizations have to develop a sensitivity toward the numerous groups and 'stakeholders' in their environment to ensure they obtain information from different perspectives to prevent they become exposed to one-sided information and capture by specialized interests (Valentinov *et al.*, 2019).

In the literature, this shift to taking into account a more varied array of communities is also reflected in the emergence of terms such as 'polycentric governance' or 'multifunctional organizations'. This implies that governance systems should be able to balance very different requirements (economic, legal, scientific, etc.) and to switch flexibly between different functional logics; multifunctional organizations can even adapt their 'function system preferences' to changing organizational requirements and environment; when, for instance, governments are failing in the delivery of crucial tasks such as providing social security or health infrastructure, (big) corporations "may assume political roles and thus pay attention to those stakeholders whose needs the government fails to address" (Will *et al.*, 2018, p. 840).

The systems theoretical literature presented above also resonates with another strand of literature about social-ecological systems. Here adaptive governance emerges here as a necessary condition for enhancing resilience in societies, and to safeguard the survival of ecosystems, which, in turn, can further buttress resilience (Chaffin *et al.*, 2014; Cleaver and Whaley, 2018). Several features of adaptive governance are traditionally distinguished.

*First* there is the idea that adaptive governance has to be adaptive itself; it cannot be a form of organization, which remains unchanged and is supposed to enable continuous adaptation of communities and societies on an ongoing basis. This idea is influenced by complex adaptive systems thinking, or CAS, where ongoing experiment, and testing of different options, is necessary for a system to survive, adapt, evolve (Schneider and Somers, 2006; Dooley, 1997). *Second*, there is the importance of observation, where the observation by experts in the governance system has to be enriched by local knowledge, which happens through participatory methods, and through multi-level and polycentric governance (Carlisle and Gruby, 2019). Discursive openness and organizational decentralization thus cooperate in increasing flexibility and the capacity to adapt (Wyborn, 2015). In many sensitive environments, such as the far north, and tropical rainforests, colonial governance regimes developed which thoroughly excluded forms of knowledge which now prove necessary for the adaptive governance of those social-ecological systems, so special effort is needed there to open up governance systems for local and traditional knowledges (Berkes, 2009).

For adaptive governance advocates in line with the resilience thinkers, the precise pattern of multi-level and poly- centric governance can, therefore, not be pinned down a priori, as it will be dependent on context and as it has to evolve, adapting to changing conditions but also to evolving insight and changing capabilities to coordinate (Van Assche *et al.*, 2013, 2017; Primmer and Wolf, 2009). Yet the principles of multi-level governance, polycentric governance, enhanced observation and inclusivity of knowledges apply. Often, the emphasis is on local governance, and on coordination at adaptive capacity at that level, but the approach remains open for coordination at higher levels of governance (Olsson *et al.*, 2006).

For the systems theories which partly underpin resilience thinking (Van Assche *et al.*, 2019, adaptation takes place all the time, in each and every system (von Bertalanffy, 1968; Luhmann, 1965). In governance systems, adaptation can be deliberate, even strategic, part of an adaptive approach to governance, but not necessarily so (Hrebiniak and Joyce, 1985). This is because adaptation can be superficial and structural; it can rely on learning that is less or more reflexive, it can question deeper assumptions or not, it can remain open to altering structures of governance or not (Voss, 2018). All this

---

transpires also from theories of learning (in single, double or triple loops) and theories of reflexivity (Voss and Kemp, 2005).

Theories of adaptive governance, therefore, have to look at theories of adaptation, and in this regard the study of organizations has much to offer. Adaptive governance has to capitalize on existing forms and mechanisms of adaptation (Van Assche *et al.*, 2013; Beunen *et al.*, 2017).

### **Adaptation and adaptive governance in organizations**

Organizations have to adapt quickly, and the series of signals triggering adaptation can vary widely, from changing prices of inputs, products and labor, over shifting demands to emerging questions of sustainability, social justice, and overall legitimacy and legality (Brown and Eisenhardt, 1997). Management is expected to observe changing environments, translate those changes into decision-premises for the organization, and steer a new course (Seidl, 2007). Accounting is expected to make the organization and its functioning more transparent to itself and to external observers. For management, such transparency is helpful toward continuous adaptation. For externals, i.e. for stakeholders, customers, regulators, it can enhance legitimacy, but also spur discussion and, from there, inspire adaptation (Grey, 2003). An organizational identity can help in identifying a course, as well as in branding products so it remains possible to steer that course (Schultz and Hernes, 2013). It can suggest adaptations which remain true to that identity but it can also form an obstacle for more radical adaptation.

Organizations can also be adapted in ways that are not strategic, for instance, when management is not steering or when management is not aware of them (Luhmann, 2018). Weick and Quinn (1999) demonstrated that “change starts with failures to adapt and change never starts because it never stops,” i.e. (strategic) change appears when routine adaptations failed, yet, somehow, various other changes take place unnoticed. This situation can be understood by adopting a classic systems theoretical perspective of a metabolic nature (von Bertalanffy, 1968), where an organization is shaped by its environment to the extent that it is dependent on input from that environment, where it creates its own selectivity, and that it stabilizes itself in a particular environment by transforming inputs continuously, using some of them as fuel, others as building blocks, others to produce things which are exchanged with the environment again (Seidl, 2016). The inputs can be material resources, but also, people, ideas, services. The exchange will be regulated by rules defined in the community. Each dependency and each exchange requires ongoing adaptation (Valentinov *et al.*, 2019).

More complex organizations will develop internal units, say departments, which will reflect the larger processes of differentiation in society. For Niklas Luhmann, organizations can participate in several functions at the same time in this fashion and maintain connections with other organizations, other discourses, other pressures, which can help shaping further adaptation (Luhmann, 1995). In doing so, organizations may develop multifunctional profiles and use multifunctional management tools (Roth *et al.*, 2018). Internal coordination, through management, of the observations coming in through the different departments, can come to synthetic conclusions regarding the best course of action, including the selection of changes the organization wants to respond to (Hernes and Bakken (2003). This implies a ranking of priorities which will be influenced by internal power relations, preferences of management and a ranking of internal values, which will be coupled to the organizational identity (Seidl, 2016). Win-win situations are not always possible, and adaptation to one risk or opportunity might enhance risk or rigidity somewhere else (Duit and Galaz, 2008). Similarly, standardization can hamper

---

flexible adaptation yet also enable coordination (and efficiencies) which can enable other forms of adaptation, at the level of the organization and in business networks (Brunsson *et al.*, 2012; Todeva, 2006).

The capacity to observe, respond and to coordinate those responses result from a co-evolution of the different parts of the organization and a co-evolution of organization and environment (Luhmann, 2018). The capacity to coordinate a response to change can transcend the organization: the organization can be networked with others, lobby with government, ask consumers or users for assistance (Todeva, 2006; Valentinov *et al.*, 2019). Whatever the situation, the evolved structures of the organization will embody a limited set of responses, and a particular mode to transform itself, to transform responses (Dynes and Aguirre, 1979).

Organizations pushing the limits of adaptation can enhance their flexibility in various ways. They can hire new people, do market research, hire consultants, which can bring in new perspectives, or make an internally produced innovation more palatable for non-responsive or less interested parts of the organization including management (Jarzabkowski, 2004; Jennings and Seaman, 1994). They can invoke reorganization, possibly instigated by consultants, which can alter the rules of the game and the rules of further transformation (Mohe and Seidl, 2011). Then the organization can, less drastically, rely on meetings which are more loosely coupled from daily routines and rules, meetings where a distance from those institutions is clearly signaled and organizational time is temporarily suspended (Seidl, 2016). Similarly, retreats and strategy sessions can increase the distance with routines and rules, cultivate reflexivity (in the case of retreats) and coordination toward concrete adaptation (in the case of strategy sessions) (Teece, 2012; Hendry and Seidl, 2003).

From the management point of view, problems of sustainability have become particularly salient for corporations whose drive for profit maximization often leads them to underestimate the significance of local communities as a crucial segment of their environment. Thompson and Valentinov (2017) suggested that the success of corporations is critically dependent on the prevalence of trust and loyalty among their stakeholders, yet the same trust and loyalty often fall under the radar of the observational perspective framed by the profit maximization. In such contexts, organizational adaptation calls for a better consideration of the organizations' metabolic dependence on their social communities. A prominent example of such dependence is comes from the field of business ethics, which, in practical terms, reflects the public opinion about business legitimacy (Crane *et al.*, 2019). In his 1953 classic *Social Responsibilities of the Businessman*, Bowen (1953) explained that managers are ultimately sensitive to the public opinion and are willing to accept new social obligations if the latter are desired by their important stakeholders.

Thus corporate social responsibility may be a major segment of adaptive governance rendering their corporations more congruent with the climate of their social communities. Organizational sensitivity toward communities is not, however, an issue of ethics only. Organizational learning processes are likewise usefully described as resulting from the "immersive engagement" (Nayak *et al.*, 2019) of organizations in their communities. Organizations develop novel capabilities by recognizing "environmental affordances" (Nayak *et al.*, 2019), as well as by "sensing," "seizing" and "transforming" environmental opportunities (Teece, 2012, p. 1396). Taking advantage of environmental opportunities and affordances requires organizations consider their community embeddedness as a crucial resource, which needs to be harnessed to achieve sustainable competitive advantage. For cooperative organizations, the significance of community embeddedness may be particularly radical, Iliopoulos and Valentinov (2017) argue that these organizations tend to exhibit heightened sensitivity to the lifeworld of their members, particularly at the early stages of



---

cooperative development. This capacity makes many cooperatives inherently inclusive organizations, but it may also generate a substantial conflict potential due to the growing member heterogeneity problems. Investor-owned firms are not likely to experience similar problems.

### **Adaptive governance in a differentiated society**

In a differentiated society, systems are adapted to each other, as a product of their co-evolution, and they can further adapt to each other, as their observations are sensitive to the actions of the other systems. Society as a whole developed an internal complexity which offers a wide variety of observations of systems by each other, of the environment, by many different systems (Luhmann, 1995). The adaptation of society as a whole to the external environment is the result therefore of complex interactions between the focused, specialized observations by many systems, and the responses to those observations (Roth, 2017). One vantage point to observe the ecological environment, externally and also internally, as making up our bodies (von Bertalanffy, 1968), does not exist, and neither is it possible to have a complete overview of the social system from within the system.

Politics, and politics in the broader sense of governance, cannot be understood as standing on a pedestal, with a perfect overview, and then able to coordinate all the subsystems in society toward an adaptive response to change. Valentinov (2014) spoke of a complexity-sustainability trade-off, where increased internal complexity, enabling society to deal with external complexity and increase its scope of operations, comes with new risks, of complex patterns of blind spots in the external environment, patterns which can hardly be reconstructed from within the system, and second the risk of weak coordination in a radically polycentric society (Neisig, 2017). Distinct from the resilience theorists, for social systems theory (and actor-network theory and post-structuralism), complex societies *are* marked by polycentric and multi-level governance, and this comes with pros and cons (Gunder and Hillier, 2009).

From a systems perspective, adaptive governance requires observation and coordinated response. Differentiation multiplies observation while rendering synthesis of observation and coordination of response harder (Luhmann, 1995). Differentiated societies cannot, therefore, be entirely specialized, adapted to one environment and use of that environment, and they cannot be entirely coordinated. In that sense, both capitalist resource towns and socialist planned towns do not fully capitalize on the benefits of differentiation, are more adapted to a particular situation, but less adaptive, hence more vulnerable (Duit and Galaz, 2008). Luhmann (1989) would speak of the dangers of de-differentiation. One can say that the model of differentiation in capitalist societies can more easily sacrifice communities, by allowing them to de-differentiate, fully specialize, such as resource communities, and then get rid of them once their role is played out (Van Assche *et al.*, 2020a, 2020b). The resilience of communities and societies can thus be radically diverge, and adaptation of society can lean on the disposability of communities a form of capitalism many have questioned (Davidson, 2010; Halseth, 2005).

Important for our purposes here is that adaptive and democratic governance cannot lean only on formal organizations but has to involve various types of democratic associations, groups or communities. First, functional differentiation requires that different relevant perspectives are included in decision-making. In classic corporatist structures and more contemporary governance structures, such representation of diverse interests is guaranteed by including different relevant stakeholders which can address issues which are of special interest to them. Regulatory agencies or multinational firms, for instance, can organize consultations

---

with the aim of obtaining information from different perspectives (Kjaer, 2014). Second, adaptive and democratic governance should go further than just hear the opinion of different professional parties included in the decision-making process; it also implies a certain sensitivity to the sphere of spontaneous communication within 'civil society.' In fact, while decision-making in each function system will usually be highly specialized, organized and rationalized, it "also relies on the inability of the organized-professional sector to assume total control" over societal communication and decision-making (Teubner, 2013, p. 90). Regulatory agencies, for instance, would do well to include information provided by stakeholders other than the regulated sector, otherwise they risk to become exposed to one-sided information and capture by specialized interests. In that sense, adaptive and democratic governance requires a certain counterbalance between the organized-professional sector and the concerns of a wide array of associations and communities. Fundamental rights such as freedom of speech and peaceful assembly or participation and information rights, obviously play an important role in enabling and guaranteeing such democratic 'checks and balances' (Luhmann, 1965; Verschraegen, 2002).

Communities as democratic communities adapt all the time, through the processes of democracy. Democracies can however be organized in many ways, according to several models of democracy (Held, 2006), and each form of organization brings its own selectivity of observations, possible and acceptable responses and forms of coordination of response (Van Assche *et al.*, 2013). Each conceptual model of polity and each practical embodiment of such model, thus comes with its own potential for adaptation and adaptive governance (Voss and Bornemann, 2011). Strongly localized systems, very sensitive for local observation and rooted local knowledges, as advocated by many theorists of adaptive governance (among them Berkes and Armitage), do not escape that selectivity. Localized systems might not accommodate a diversity in expert knowledge, and they can be captured more easily by closed identity groups, clans and narrowly focused discourses (Cooke and Kothari, 2001). While centralized systems, organized in a top-down fashion and dominated by particular expert groups, bring their own forms of blindness and limited adaptation (c.f. already Hayek, 1944).

This brings home the point again that perfect adaptation and adaptive capacity do not coexist (Luhmann, 1995; von Bertalanffy, 1968). It reinforces the idea that adaptive governance will be a multiplicity of possibilities. Moreover, smooth synthesis of observation and coordination of response will be difficult and problematic in any community where diversity of actors and of perspectives is positively valued (Gunder and Hillier, 2009; Jessop, 2003). Checks and balances are there to be used, to maintain and protect an actual difference in perspective and protecting checks and balances is thus always an obstacle for rapid unified response in adaptive governance (Smith and Stirling, 2007; Neisig, 2017).

Identity narratives of communities (we are this type of people, place) can streamline observation and response, but this, again, comes with problems of adaptive capacity in the future (Halseth, 2005; Eriksen, 2002). Then even in case of a strong shared identity, any community will have a diversity of goals, aspirations, desires, which can contradict each other, and produce different definitions of reality, problems and ideal responses. Even if the future of the mining town is understood locally as a new mine, the mess of the previous mine can be seen as a problem, a marker of identity, a neutral background (Van Assche *et al.*, 2017).

### **Organizations and communities: parallels and differences**

As already explained, communities are not organizations, yet the long history of metaphors of community as organization (or moving organization, like a ship) indicates many saw

---

parallels (Morgan, 1986). We pointed already at some of those parallels. We also adumbrated some of the differences.

In the literature on policy, politics, planning, public administration, the differences are usually highlighted, with the notable exception of new public management, where governmental organizations are understood along similar lines as private organizations, and where government and administrations as a whole are also understood as one overarching organization (Hood and Peters, 2004). With regard to adaptation and adaptive governance, we would highlight the importance of diversity in goals, as mentioned, which has to be given a place in democratic governance of communities, more than in the governance of organizations (Valentinov *et al.*, 2019). Even more than formal organizations, associations or communities can be seen as uniform 'actors' only from very far away, and only for observers who ignore their inherent internal diversity and complexity. That diversity, as always, is good and bad for adaptation, as it multiplies perspectives and slows down synthesis of perspective and coordination of response (Dooley, 1997; Jessop, 2003).

The coordination in communities is further slowed down by the internal differentiation mentioned above (Neisig, 2017), which is harder to avoid in communities, as, again, the tasks are manifold and cannot be streamlined as easily by rethinking the organizational identity or rebranding (Gotham, 2007; Kavaratzis and Kalandides, 2015). Also leadership in communities cannot vary as much as in organizations, as accountability is expected to be greater, discretionary space for decision-making smaller and legal frames reduce autonomy (Portugal and Yukl, 1994). The manager-hero cannot easily be copied in politics or in administration (Hood and Peters, 2004; Czarniawska, 1997). Furthermore, much 'fat' in the organization, in the sense of seeming redundancies, in fact play important roles at community level, by serving checks and balances, allowing the continuation of diversity and maintenance of seemingly irrelevant expertise but also by preventing the reduction of the organization to provider of one strictly defined service or product (Felsenthal, 1980).

Important to note here are, of course, the highly complicated interrelations between organizations and communities. On the one hand, communities are a communicative 'construct' of organizations, like, for instance, the community of the 'nation' is the abstract construction developed and stabilized by the state (Weber, 1976), yet on the other hand communities can only 'represent themselves,' or can be observed by others, if they take on the form of 'organization.' Within governance systems, ethnic or religious groups, for instance, can only be observed (and their concerns are taken into account) because and insofar as they are organizations. Only then do they (or more precisely their incumbents) possess certain material and organizational resources and are capable of organized action, and thereby representing the interests and perspectives of the groups in whose name they claim to act. A fuller and more rounded treatment of this theme, to be sure, would require a more comprehensive discussion.

The main issue which interests us here, however, are the commonalities and differences in terms of adaptive governance. It can be noted, for instance, that organizations are generally faster in their response to change, but, as said, the communities involved in governance have more internal complexity to harness, more sources of observation, different logics of processing, each of which can contribute to the recognition and implementation of *different* adaptation options. This does not naturally emerge in any governance system, however; an openness to learn, discuss, compare options, is essential, and for that, the presence of checks and balances (avoiding dominance of one perspective) and of arena's with authority and opportunity for diverse input is essential (Morlino and Palombella, 2010). Such arenas can be parliaments, but also, within administration, expert groups, or, beyond

---

the limits of government, advisory councils with a particular focus and participatory processes (Voss and Bornemann, 2011).

The influence of environments on organizations and communities is also different. For formal organizations, one can say that their form of system can only survive in a differentiated society, where they can bridge function systems (Luhmann, 2018). The emergence of the form of organization took place together with the differentiation of the function systems and they rely on each other (Luhmann, 1995). This reliance will help organizations' survival but it can also help communities, where the organizations help to pursue goals which cannot be taken care of by the function systems; they can bring flexibility, thus adaptation (Valentinov *et al.*, 2019; Wybom, 2015). When community governance specifies tasks, it tends to create organizations; when those public organizations do not have the flexibility to fulfill tasks desired by the public, organizations are created at arm's length, private consultants are hired, companies are hired for thorny implementation processes (Kerri *et al.*, 1976; Howlett and Migone, 2013). The diversity of organizational forms helps here to accommodate ever-shifting demands, in other words, represents the potential for adaptive governance (Brans and Rossbach, 1997; Valentinov and Thompson, 2019). Yet, retreat or reinvention as 'small government', parallel to a falling back on 'core business' in organizations does not work as adaptation strategy, as there is no core to the business of governance, except for remaining open to articulations of new public goods and desires (Armitage *et al.*, 2009; Rhodes, 1997).

Moreover, organizations survive not only by relying on function systems. The regime of functional differentiation is marked by a proliferation of discrepant and incommensurable systemic logics and imperatives, with no privileged observational perspective or narrative which would be able to gain legitimacy once and for all. According to Holmström (2005), this regime rests on the conflict between independence and interdependence, further aggravated by the transformation of dangers into risks. Given the increasingly limited governance capacity of the traditional law, organizations must take continual efforts to secure their own legitimacy, such as the notorious public relations campaigns (Holmström, 2005). It is characteristic that many of these efforts capitalize on the embeddedness of organizations in specific communities, whether real or fictional.

To secure their survival, organizations seek legitimacy from the communities of their stakeholders. More than that, as Barnard (1938) and the human relations school discerned long ago, organizations must themselves be social communities able to inculcate and maintain distinct moralities inducing individual employees to be cooperative rather than opportunistic. Barnard (1938) stressed that keeping organizations alive makes extraordinary demands on the managerial capacity to make subtle judgments and to see organization as a whole. This capacity, according to Barnard (1938), is itself predicated on managerial loyalty which gives primacy to the "good of the organization" rather than any form of self-interest. Today, Barnard's insights have lost none of their relevance; it is not uncommon to see organizations being described as "social communities" (Kogut and Zander, 1992) or "moral communities" (Bowie, 2017). In fact, it is only by maintaining strong internal communities that organizations make a positive impact on the external social communities in which they are embedded. Organizations continually generate novelty, in the Whiteheadian sense, to prevent the larger communities from disintegration and decay; they replenish and reproduce the communities' stocks of moral resources while drawing on these resources to sustain complex forms of cooperation.

Thus, to understand the potential of organizations for adaptive governance of communities, we need to understand not only the similarities and differences between

---

adaptation of communities and organizations *but also the role of organizations in communities.*

It appears to us that the diversity of organizational forms, in terms of goals, responsibilities, assets, lifespan, internal complexity, greatly contributes to the possibilities of society as a whole to create new opportunities and find new ways to manage risk. The focus of the adaptive governance literature is usually the management of risk, collapse of societies and of ecosystems, but we believe it is useful to understand the functioning of the combination of function systems and organizations as the simultaneous creation of risks and opportunities, and the multiplication of vantage points which allow for a measuring and assessment of risk and opportunity. Each new organization expands the scope of observation for communities and societies, and possibilities to respond to change (Kerri *et al.*, 1976; Valentinov *et al.*, 2019; Roth, 2017). New types of organizations can amplify that difference and new embeddings of organizations in society (engendered by either society or organization), can diversify the channels through which learning and coordination can take place (as in the stakeholder perspective of the firm; Jonker and Foster, 2002). The diversity of forms and strategies of organizational adaptation to communities encompasses salient phenomena such as corporate social responsibility (Roth *et al.*, 2020a, 2020b), multifunctional management (Roth *et al.*, 2018); stakeholder management (Valentinov *et al.*, 2019), non-profit sector and civil society (Valentinov *et al.*, 2015). Reflecting on the evolving embeddings of organizations in society, Valentinov and Pérez-Valls (2021) put forward the idea of “moral wayfinding” which integrates organizational learning with the pursuit of moral purposes.

When the function system of politics cannot observe or respond to change, organizations, public and private, can assist, can develop links between perspectives, between function systems, can develop tools of coordination. In the lap of organizations, loosely-coupled parts and episodes can further expand opportunities for comparing observation and further enhance flexibility. A shared semantics, or even problem definition, can be a starting point for coordination, while before that stage, the diversity of perspectives can import various problem definitions (Kjaer, 2014; Cash *et al.*, 2006).

So, whereas both diversity and integration have pros and cons in governance, and in adaptive governance, it is better to say that both are needed, yet at different stages. Then, whereas organizations and community governance have their similarities, and communities can learn from organizations, it is also true that they rely on organizations, and that it has great advantages to see these relationships also as episodic, as waxing, waning, shifting, to optimize adaptive governance. One can say that organizations redefine through their easy creation and varied forms all the time what communities are and can do, that they embody ongoing experimentation in all function systems (Luhmann, 2018). Divergence and convergence, experimentation and synthesis need to alternate in governance, to multiply observations, possible responses and coordinate response, when the issue to adapt to requires deeper policy integration and coordination. Organizations thus create societal complexity all the time and creating new internal means to manage external complexity (Nassehi, 2005).

This also entails that they can be both enabler and obstacle for adaptive governance at community level. They can also make internal coordination harder, by making it harder to fully integrate perspectives toward adaptation, by making it harder for governance to get a picture of the internal environment of society, by rendering coordination harder, through opposition, through pursuit of organizational goals at the expense of public goals (this happens for public organizations too). Furthermore, organizations can become entrenched, and write the rules, shape

---

institutions toward organizational goals and identities (this, again, is not limited to private organizations)

## Conclusion

Organizations are adapted to environments and they can refocus that adaptation through adaptive governance. The adaptive governance of communities is a matter of politics, of balancing interests, of cultivating a diversity of perspectives and voices, different from the adaptation by organizations. A problem for adaptation shared by communities and society alike is that both internal and external environments are multiplicities. If we just focus on the external environment of the social-ecological system, the main interest of the adaptive governance literature, one cannot construct one perfect vantage point from which to observe that environment. Looking internally, there is no one vantage point from which to recognize the cognitive tools to process that observation, nor the organizational tools to respond through action and coordinate that action.

The more simple system of the organization allows us to see some principles of adaptation more clearly, starting with the co-presence of conscious and unconscious adaptations, of strategic and non-strategic adaptations, the limited awareness of the limits of steering and adaptation, the internal competition regarding leadership in coordination and integration of the response.

Observation of change has to be translated into a problem which requires response (Dynes and Aguirre, 1979), and the study of organizations which have to adapt allows us to state some of the key problems of adaptive governance in communities more clearly. At the same time, the differences between organizational and community governance, associated with the differentiation and complexification of the social environment, allow us to see better how organizations can contribute to the continuous adaptation of the community. Adaptation here can come about through the rapid proliferation and diversification of the organizational form, which means that organizations are rapidly expanding the scope of interactions in society, exploring opportunities, testing. New practices, products, ideas can be tested more easily within an organization with limited scope and responsibility, than within governance, and if the organization fails, so be it. The risks of community governance failing are high, and even in democracies, where approaches can be tested and alternated through elections, the flexibility and experimentation is limited because of party identities, and more importantly, the rigidity of politics, administration and law.

Organizations thus mushroom more easily; they can try new things, and this continuous experimentation, toward private and public goods, multiplies observation but also possible pathways of adaptation, while they also change the environment to which communities can adapt. They contribute continuously to the adaptation of communities to their environment, and some of them can be useful in the adaptive governance of communities, as both public and private organizations can be used consciously to expand observations, responses and intensify coordination and policy integration (Candel and Biesbroek, 2016). Only a small part of the complexity created by organizations can be harnessed for governance, can be tightly coupled to, or turned into institutions. One has to consider that the sheer variation in organizations and organizational forms, creates more potential for experimentation but also for competition, in observations and responses (Hayek, 1944; Bakken *et al.*, 2010). In addition, some of the problems society has to adapt to, are also created by organizations (Luhmann, 1989).

Besides increased coordination, organizations thus contribute to increased competition, and we argue that for adaptive governance, the lessons from comparing organizations and communities, and looking at the utility of organizations for communities, have to include that

adaptive governance has to accept, in fact cultivate, its own *slowing down* by competing and diverse perspectives. It has to accept that adaptation, using the potential of organizations, will be most likely episodic, including periods of more rapid experimentation, growth of organizations, competing views, divergence and episodes of convergence, of codification and institutionalization of views, of selective use of organizations to coordinate responses (Brunsson *et al.*, 2012; Seidl, 2007). Such episodic nature of adaptive governance is further marked by an alternation of slow and fast, of observation and action, of private initiative and governmental planning (Weick and Quinn, 1999; Tushman and O'Reilly, 1996).

Communities can manage their own adaptation and adaptive capacity to an extent, through the deliberative processes of governance, and this can entail a continuous consideration of the role of organizations. New organizations can be created, regulated, used for learning, innovation, for advising self-transformation but, as stipulated by several of the authors cited, governance can also help organizations to embed themselves more variedly in society, to open up for more signals (Valentinov, 2014). Such can, in turn, assist organizations to adapt, to harness the resources of society to do so, while it can further the adaptive governance of society itself. One could venture to say that re-thinking organizations in context thus helps both organizations and society, as it increases the capacity for adaptive governance: teaching organizations to adapt, for society to adapt. In this view, what was noted in earlier paragraphs receives further confirmation, i.e. that besides the general principles of polycentrism, etc, adaptive governance cannot have predefined forms (Cleaver and Whaley, 2018; Davidson, 2010; Van Assche *et al.*, 2017). The organizations which it has to rely on, will irrevocably change the governance system itself.

Communities can survive and thrive for many years. For systems theories, as well as for evolutionary biology in the line of Varela *et al.* (1974), this means that they are adaptive, even if this is not immediately observable and even if adaptation is not optimal (only satisfactory). Adaptation comes from many sides, and not all adaptations need to be conscious or coordinated. In periods of crisis, however, it can become more important to cultivate quickly reflexivity in governance, or to rely on outsider observations, to elucidate how environments have changed, what caused it, and to what extent communities are adapted or not to the environment. The myriad forms of organization, of goals, of identities, produced by our functionally differentiated society can be likened to the process of diversification, testing and selection presented by the theorists of complex adaptive systems as a positive universal and a universal positive (Schneider and Somers, 2006). Drawing on classic systems theory and on social systems theory, we can modify this image by emphasizing functional differentiation and metabolic self-reproduction. Even with the great fecundity of organizational production, much of it is re-production, and building from there, and that prolific production can only be maintained by, and is structured by the function systems in society. If governance of communities is located in the function system of politics, then adaptive governance is reduced in power by its dependence on other function systems, yet the whole configuration of systems embodies additional sources of adaptation. And then, there are the organizations. Both experiment and coordination at societal level are needed, toward adaptive governance and organizations can contribute to both.

## References

- Armitage, D.R., Plummer, R., Berkes, F., Arthur, R.I., Charles, A.T., Davidson-Hunt, I.J., Diduck, A.P., Doubleday, N.C., Johnson, D.S., Marschke, M. and McConney, P. (2009), "Adaptive co-management for social-ecological complexity", *Frontiers in Ecology and the Environment*, Vol. 7 No. 2, pp. 95-102.
- Bakken, T., Hernes, T. and Wiik, E. (2010), "Innovation and organization: an overview from the perspective of Luhmann's autopoiesis", *Advanced Series in Management*.

- 
- Barnard, C.I. (1938), *The Functions of the Executive*, Harvard University Press, Cambridge, MA.
- Berkes, F. (2009), "Evolution of co-management: role of knowledge generation, bridging organizations and social learning", *Journal of Environmental Management*, Vol. 90 No. 5, pp. 1692-1702.
- Beunen, R., Patterson, J. and Van Assche, K. (2017), "Governing for resilience: the role of institutional work", *Current Opinion in Environmental Sustainability*, Vol. 28, pp. 10-16.
- Bowen, H.R. (1953), *Social Responsibility of the Businessman*, Harper, New York, NY.
- Bowie, N.E. (2017), *Business Ethics: A Kantian Perspective*, Cambridge University Press, Cambridge.
- Brans, M. and Rossbach, S. (1997), "The autopoiesis of administrative systems: Niklas Luhmann on public administration and public policy", *Public Administration*, Vol. 75 No. 3, pp. 417-439.
- Brown, S.L. and Eisenhardt, K.M. (1997), "The art of continuous change: linking complexity theory and time-paced evolution in relentlessly shifting organizations", *Administrative Science Quarterly*, Vol. 42 No. 1, pp. 1-34.
- Brunsson, N., Rasche, A. and Seidl, D. (2012), "The dynamics of standardization: three perspectives on standards in organization studies", *Organization Studies*, Vol. 33 Nos 5/6, pp. 613-632.
- Candel, J.J. and Biesbroek, R. (2016), "Toward a processual understanding of policy integration", *Policy Sciences*, Vol. 49 No. 3, pp. 211-231.
- Carlisle, K. and Gruby, R.L. (2019), "Polycentric systems of governance: a theoretical model for the commons", *Policy Studies Journal*, Vol. 47 No. 4, pp. 927-952.
- Cash, D.W., Adger, W.N., Berkes, F., Garden, P., Lebel, L., Olsson, P., Pritchard, L. and Young, O. (2006), "Scale and cross-scale dynamics: governance and information in a multilevel world", *Ecology and Society*, Vol. 11 No. 2.
- Chaffin, B.C., Gosnell, H. and Cosens, B.A. (2014), "A decade of adaptive governance scholarship: synthesis and future directions", *Ecology and Society*, Vol. 19 No. 3.
- Cleaver, F. and Whaley, L. (2018), "Understanding process, power, and meaning in adaptive governance", *Ecology and Society*, Vol. 23 No. 2.
- Cooke, B., and Kothari, U. (Eds) (2001), *Participation: The New Tyranny?* Zed books.
- Crane, A., Matten, D., Glozer, S., and Spence, L.J. (2019), *Business Ethics: Managing Corporate Citizenship and Sustainability in the Age of Globalization*, Oxford University Press, Oxford.
- Czarniawska, B. (Ed.) (1997), *A Narrative Approach to Organization Studies*, Vol. 43, Sage Publications.
- Davidson, D.J. (2010), "The applicability of the concept of resilience to social systems: some sources of optimism and nagging doubts", *Society and Natural Resources*, Vol. 23 No. 12, pp. 1135-1149.
- Dooley, K.J. (1997), "A complex adaptive systems model of organization change", *Nonlinear Dynamics, Psychology, and Life Sciences*, Vol. 1 No. 1, pp. 69-97.
- Duit, A. and Galaz, V. (2008), "Governance and complexity – emerging issues for governance theory", *Governance*, Vol. 21 No. 3, pp. 311-335.
- Dynes, R.R. and Aguirre, B.E. (1979), "Organizational adaptation to crises: mechanisms of coordination and structural change", *Disasters*, Vol. 3 No. 1, pp. 71-74.
- Eriksen, T.H. (2002), *Ethnicity and Nationalism: Anthropological Perspectives*, Pluto press.
- Felsenthal, D.S. (1980), "Applying the redundancy concept to administrative organizations", *Public Administration Review*, Vol. 40 No. 3, pp. 247-252.
- Gotham, K.F. (2007), "(re) branding the big easy: tourism rebuilding in post-Katrina new Orleans", *Urban Affairs Review*, Vol. 42 No. 6, pp. 823-850.
- Grey, C. (2003), "The real world of enron's auditors", *Organization*, Vol. 10 No. 3, pp. 572-576.
- Gunder, M. and Hillier, J. (2009), *Planning in Ten Words or Less: A Lacanian Entanglement with Spatial Planning*, Ashgate Publishing.



- Halseth, G. (2005), *Resource Town Transition: Debates after Closure. Rural Change and Sustainability: Agriculture, the Environment and Communities*, CABI Publishing, Oxfordshire, pp. 326-342.
- Hayek, F. (1944), *The Road to Serfdom*, Routledge.
- Held, D. (2006), *Models of Democracy*, Stanford University Press.
- Hendry, J. and Seidl, D. (2003), "The structure and significance of strategic episodes: social systems theory and the routine practices of strategic change", *Journal of Management Studies*, Vol. 40 No. 1, pp. 175-196.
- Hernes, T. and Bakken, T. (2003), "Implications of self-reference: Niklas Luhmann's autopoiesis and organization theory", *Organization Studies*, Vol. 24 No. 9, pp. 1511-1535.
- Holmström, S. (2005), "Reframing public relations: the evolution of a reflective paradigm for organizational legitimization", *Public Relations Review*, Vol. 31 No. 4, pp. 497-504.
- Holmström, S. (2007), "Niklas Luhmann: contingency, risk, trust and reflection", *Public Relations Review*, Vol. 33 No. 3, pp. 255-262.
- Hood, C. and Peters, G. (2004), "The Middle aging of new public management: into the age of paradox?", *Journal of Public Administration Research and Theory*, Vol. 14 No. 3, pp. 267-282.
- Howlett, M. and Migone, A. (2013), "Policy advice through the market: the role of external consultants in contemporary policy advisory systems", *Policy and Society*, Vol. 32 No. 3, pp. 241-254.
- Hrebiniak, L.G. and Joyce, W.F. (1985), "Organizational adaptation: strategic choice and environmental determinism", *Administrative Science Quarterly*, Vol. 30 No. 3, pp. 336-349.
- Iliopoulos, C. and Valentinov, V. (2017), "Member preference heterogeneity and system-lifeworld dichotomy in cooperatives", *Journal of Organizational Change Management*, Vol. 30 No. 7, pp. 1063-1080.
- Jarzabkowski, P. (2004), "Strategy as practice: recursiveness, adaptation, and practices-in-use", *Organization Studies*, Vol. 25 No. 4, pp. 529-560.
- Jennings, D.F. and Seaman, S.L. (1994), "High and low levels of organizational adaptation: an empirical analysis of strategy, structure, and performance", *Strategic Management Journal*, Vol. 15 No. 6, pp. 459-475.
- Jessop, B. (1997), "The governance of complexity and the complexity of governance: preliminary remarks on some problems and limits of economic guidance", *Beyond Market and Hierarchy: Interactive Governance and Social Complexity*, pp. 95-128.
- Jessop, B. (2003), "Governance and meta-governance: on reflexivity, requisite variety and requisite irony", *Governance as Social and Political Communication*, pp. 101-116.
- Jonker, J. and Foster, D. (2002), "Stakeholder excellence? Framing the evolution and complexity of a stakeholder perspective of the firm", *Corporate Social Responsibility and Environmental Management*, Vol. 9 No. 4, pp. 187-195.
- Kavaratzis, M. and Kalandides, A. (2015), "Rethinking the place brand: the interactive formation of place brands and the role of participatory place branding", *Environment and Planning A: Economy and Space*, Vol. 47 No. 6, pp. 1368-1382.
- Kerri, J.N., Ayabe, T., Bhowmick, P.K., Brunt, L., Caulkins, D.D., Dobyns, H.F., Gold, G.L., Handelman, D., Kertzer, D.I., Little, K. and McCall, G. (1976), "Studying voluntary associations as adaptive mechanisms: a review of anthropological perspectives [and comments and reply]", *Current Anthropology*, Vol. 17 No. 1, pp. 23-47.
- Kjaer, P.F. (2014), *Constitutionalism in the Global Realm: A Sociological Approach*, Routledge.
- Klijn, E.H. and Skelcher, C. (2007), "Democracy and governance networks: compatible or not?", *Public Administration*, Vol. 85 No. 3, pp. 587-608.
- Kogut, B. and Zander, U. (1992), "Knowledge of the firm, combinative capabilities, and the replication of technology", *Organization Science*, Vol. 3 No. 3, pp. 383-397.
- Luhmann, N. (1964), *Funktionen Und Folgen Formaler Organisation*, Duncker and Humblot, Berlin.

- 
- Luhmann, N. (1965), *Grundrechte Als Institution: ein Beitrag Zur Politischen Soziologie*, Duncker and Humblot, Berlin.
- Luhmann, N. (1989), *Ecological Communication*, University of Chicago Press, Chicago.
- Luhmann, N. (1995), *Social Systems*, Stanford University Press.
- Luhmann, N. (2018), *Organization and Decision*, Cambridge University Press.
- Moeller, H.G. (2011), *The Radical Luhmann*, Columbia University Press.
- Mohe, M. and Seidl, D. (2011), "Theorizing the client–consultant relationship from the perspective of social-systems theory", *Organization*, Vol. 18 No. 1, pp. 3-22.
- Morgan, G. (1986), *Images of Organization*, Sage, Thousand Oaks, CA.
- Morlino, L., and Palombella, G. (Eds) (2010), *Rule of Law and Democracy: Inquiries into Internal and External Issues*, Vol. 115, Brill.
- Nassehi, A. (2005), "Organizations as decision machines: Niklas Luhmann's theory of organized social systems", *The Sociological Review*, Vol. 53 No. 1\_suppl, pp. 178-191.
- Nayak, A., Chia, R. and Canales, J.I. (2019), "Non-cognitive microfoundations: understanding dynamic capabilities as idiosyncratically refined sensitivities and predispositions", *Academy of Management Review*, Vol. 45 No. 2, doi: [10.5465/amr.2016.0253](https://doi.org/10.5465/amr.2016.0253).
- Neisig, M. (2017), "Transition in complex polycentric contexts: trusting and multifunctional semantics", *Systems Research and Behavioral Science*, Vol. 34 No. 2, pp. 163-181.
- Olsson, P., Gunderson, L.H., Carpenter, S.R., Ryan, P., Lebel, L., Folke, C. and Holling, C.S. (2006), "Shooting the rapids: navigating transitions to adaptive governance of social-ecological systems", *Ecology and Society*, Vol. 11 No. 1.
- Portugal, E. and Yukl, G. (1994), "Perspectives on environmental leadership", *The Leadership Quarterly*, Vol. 5 Nos 3/4, pp. 271-276.
- Primmer, E. and Wolf, S.A. (2009), "Empirical accounting of adaptation to environmental change: organizational competencies and biodiversity in Finnish Forest management", *Ecology and Society*, Vol. 14 No. 2.
- Rhodes, R.A. (1997), *Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability*, Open University.
- Roth, S. (2017), "From added values to augmented realities: introducing the special issue of management and functional differentiation", *Systems Research and Behavioral Science*, Vol. 34 No. 2, pp. 131-138.
- Roth, S., Valentinov, V., Kaivo-Oja, J. and Dana, L.P. (2018), "Multifunctional organisation models: a systems–theoretical framework for new venture discovery and creation", *Journal of Organizational Change Management*, Vol. 31 No. 7, pp. 1383-1400.
- Roth, S., Valentinov, V., Heidingsfelder, M. and Pérez-Valls, M. (2020a), "CSR beyond economy and society: a post-capitalist approach", *Journal of Business Ethics*, Vol. 165 No. 3, pp. 411-423.
- Roth, S., Schwede, P., Valentinov, V., Pérez-Valls, M. and Kaivo-Oja, J. (2020b), "Harnessing big data for a multifunctional theory of the firm", *European Management Journal*, Vol. 38 No. 1, pp. 54-61.
- Schneider, M. and Somers, M. (2006), "Organizations as complex adaptive systems: implications of complexity theory for leadership research", *The Leadership Quarterly*, Vol. 17 No. 4, pp. 351-365.
- Schultz, M. and Hernes, T. (2013), "A temporal perspective on organizational identity", *Organization Science*, Vol. 24 No. 1, pp. 1-21.
- Seidl, D. (2007), "General strategy concepts and the ecology of strategy discourses: a systemic-discursive perspective", *Organization Studies*, Vol. 28 No. 2, pp. 197-218.
- Seidl, D. (2016), *Organisational Identity and Self-Transformation: An Autopoietic Perspective*, Routledge.

- 
- Smith, A. and Stirling, A. (2007), "Moving outside or inside? Objectification and reflexivity in the governance of socio-technical systems", *Journal of Environmental Policy and Planning*, Vol. 9 Nos 3/4, pp. 351-373.
- Teece, D.J. (2012), "Dynamic capabilities: routines versus entrepreneurial action", *Journal of Management Studies*, Vol. 49 No. 8, pp. 1395-1401.
- Teubner, G. (2013), *Constitutional Fragments. Societal Constitutionalism and Globalization*, Oxford University Press, Oxford.
- Teubner, G. (Ed.) (1988), *Dilemmas of Law in the Welfare State*, De Greuter, New York, NY.
- Thompson, S. and Valentinov, V. (2017), "The neglect of society in the theory of the firm: a systems-theory perspective", *Cambridge Journal of Economics*, Vol. 41 No. 4, pp. 1061-1085.
- Todeva, E. (2006), *Business Networks: Strategy and Structure*, Routledge.
- Tushman, M.L. and O'Reilly, C.A. III. (1996), "Ambidextrous organizations: managing evolutionary and revolutionary change", *California Management Review*, Vol. 38 No. 4, pp. 8-29.
- Valentinov, V. (2014), "The complexity–sustainability trade-off in Niklas Luhmann's social systems theory", *Systems Research and Behavioral Science*, Vol. 31 No. 1, pp. 14-22.
- Valentinov, V. and Pérez-Valls, M. (2021), "A conception of moral wayfinding for business managers: the obligation for a sustainable corporation", *Journal of Cleaner Production*, Vol. 284.
- Valentinov, V. and Thompson, S. (2019), "The supply and demand of social systems: towards a systems theory of the firm", *Kybernetes*, Vol. 48 No. 3, pp. 570-585.
- Valentinov, V., Hielscher, S. and Pies, I. (2015), "Nonprofit organizations, institutional economics, and systems thinking", *Economic Systems*, Vol. 39 No. 3, pp. 491-501.
- Valentinov, V., Roth, S. and Will, M.G. (2019), "Stakeholder theory: a Luhmannian perspective", *Administration and Society*, Vol. 51 No. 5, pp. 826-849.
- Van Assche, K., Beunen, R., and Duineveld, M. (2013), *Evolutionary Governance Theory: An Introduction*, Springer Science and Business Media.
- Van Assche, K., Gruezmacher, M. and Deacon, L. (2020a), "Land use tools for tempering boom and bust: strategy and capacity building in governance", *Land Use Policy*, Vol. 93, p. 103994.
- Van Assche, K., Beunen, R., Duineveld, M. and Gruezmacher, M. (2017), "Power/knowledge and natural resource management: foucaultian foundations in the analysis of adaptive governance", *Journal of Environmental Policy and Planning*, Vol. 19 No. 3, pp. 308-322.
- Van Assche, K., Beunen, R., Gruezmacher, M. and Duineveld, M. (2020b), "Rethinking strategy in environmental governance", *Journal of Environmental Policy and Planning*, Vol. 22 No. 5, pp. 1-14.
- Van Assche, K., Verschraegen, G., Valentinov, V. and Gruezmacher, M. (2019), "The social, the ecological, and the adaptive. Von Bertalanffy's general systems theory and the adaptive governance of social-ecological systems", *Systems Research and Behavioral Science*, Vol. 36 No. 3, pp. 308-321.
- Varela, F.G., Maturana, H.R. and Uribe, R. (1974), "Autopoiesis: the organization of living systems, its characterization and a model", *Biosystems*, Vol. 5 No. 4, pp. 187-196.
- Verschraegen, G. (2002), "Human rights and modern society: a sociological analysis from the perspective of systems theory", *Journal of Law and Society*, Vol. 29 No. 2, pp. 258-281.
- Verschraegen, G. (2015), "The evolution of welfare state governance", *Evolutionary Governance Theory*, Springer, Cham, pp. 57-71.
- von Bertalanffy, L. (1968), *General System Theory: Foundations, Development, Applications*, George Braziller, New York, NY.
- Voss, J.P. (2018), "Innovating governance", *Innovation Society Today*, Springer VS, Wiesbaden, pp. 295-321.

- Voss, J.P. and Bornemann, B. (2011), "The politics of reflexive governance: challenges for designing adaptive management and transition management", *Ecology and Society*, Vol. 16 No. 2.
- Voss, J.P. and Kemp, R. (2005), "Reflexive governance for sustainable development – incorporating feedback in social problem solving", *Papers of the ESEE Conference*, Lisbon, pp. 112-134.
- Will, M.G., Roth, S. and Valentinov, V. (2018), "From nonprofit diversity to organizational multifunctionality: a systems-theoretical proposal", *Administration & Society*, Vol. 50 No. 7, pp. 1015-1036.
- Weber, E. (1976), *Peasants into Frenchmen. The Modernization of Rural France, 1870-1914*, Stanford University Press, Stanford.
- Weick, K.E. and Quinn, R.E. (1999), "Organizational change and development", *Annual Review of Psychology*, Vol. 50 No. 1, pp. 361-386.
- Whitehead, A.N. (1925), *Science and the Modern World*, Pelican Mentor Book, New York, NY.
- Wyborn, C. (2015), "Co-productive governance: a relational framework for adaptive governance", *Global Environmental Change*, Vol. 30, pp. 56-67.

### Further reading

- Blackburn, S. and Pelling, M. (2018), "The political impacts of adaptation actions: social contracts, a research agenda", *Wiley Interdisciplinary Reviews: Climate Change*, Vol. 9 No. 6, p. e549.
- Blaschke, S., Schoeneborn, D. and Seidl, D. (2012), "Organizations as networks of communication episodes: turning the network perspective inside out", *Organization Studies*, Vol. 33 No. 7, pp. 879-906.
- Boisot, M. and Child, J. (1999), "Organizations as adaptive systems in complex environments: the case of China", *Organization Science*, Vol. 10 No. 3, pp. 237-252.
- Brunsson, N. (1985), "The irrational organisation", *Irrationality as a Basis for Organizational Action and Change*, Wiley, Oxford.
- Burgelman, R.A. (1991), "Intraorganizational ecology of strategy making and organizational adaptation: theory and field research", *Organization Science*, Vol. 2 No. 3, pp. 239-262.
- Christensen, T., Lægread, P. and Rykkja, L.H. (2016), "Organizing for crisis management: building governance capacity and legitimacy", *Public Administration Review*, Vol. 76 No. 6, pp. 887-897.
- Deeg, R. (1993), "The state, banks, and economic governance in Germany", *German Politics*, Vol. 2 No. 2, pp. 149-176.
- Edquist, C. and Johnson, B. (1996), *Institutions and Organizations in Systems of Innovation*, Univ.
- Engle, N.L. (2011), "Adaptive capacity and its assessment", *Global Environmental Change*, Vol. 21 No. 2, pp. 647-656.
- Folke, C., Hahn, T., Olsson, P. and Norberg, J. (2005), "Adaptive governance of social-ecological systems", *Annual Review of Environment and Resources*, Vol. 30 No. 1, pp. 441-473.
- Freeman, R.E., Harrison, J.S., Wicks, A.C., Parmar, B., and de Colle, S. (2010), *Stakeholder Theory: The State of the Art*, Cambridge University Press, Cambridge.
- Fuchs, S. (2009), *Against Essentialism: A Theory of Culture and Society*, Harvard University Press.
- Golsorkhi, D., Rouleau, L., Seidl, D., and Vaara, E. (Eds) (2010), *Cambridge Handbook of Strategy as Practice*, Cambridge University Press.
- Gray, R., Walters, D., Bebbington, J. and Thompson, I. (1995), "The greening of enterprise: an exploration of the (non) role of environmental accounting and environmental accountants in organizational change", *Critical Perspectives on Accounting*, Vol. 6 No. 3, pp. 211-239.
- Latour, B. (1984), "The powers of association", *The Sociological Review*, Vol. 32 No. 1\_suppl, pp. 264-280.

- 
- Liu, J., Dietz, T., Carpenter, S.R., Folke, C., Alberti, M., Redman, C.L., Schneider, S.H., Ostrom, E., Pell, A.N., Lubchenco, J. and Taylor, W.W. (2007), "Coupled human and natural systems", *AMBIO: a Journal of the Human Environment*, Vol. 36 No. 8, pp. 639-649.
- Luhmann, N. (1990), *Political Theory in the Welfare State*, de Gruyter.
- Miller, P. and Power, M. (2013), "Accounting, organizing, and economizing: connecting accounting research and organization theory", *Academy of Management Annals*, Vol. 7 No. 1, pp. 557-605.
- Nelson, D.R., Adger, W.N. and Brown, K. (2007), "Adaptation to environmental change: contributions of a resilience framework", *Annual Review of Environment and Resources*, Vol. 32 No. 1.
- Radtke, I. and Fleischer, J. (2019), "The refugee crisis in Germany: new coordination structures to repair organisational legitimacy", *Societal Security and Crisis Management*, Palgrave Macmillan, Cham, pp. 265-283.
- Reed, M.S., Evely, A.C., Cundill, G., Fazey, I., Glass, J., Laing, A., Newig, J., Parrish, B., Prell, C., Raymond, C. and Stringer, L.C. (2010), "What is social learning?", *Ecology and Society*, Vol. 15 No. 4.
- Rhodes, C. and Brown, A.D. (2005), "Narrative, organizations and research", *International Journal of Management Reviews*, Vol. 7 No. 3, pp. 167-188.
- Roth, S. (2009), "New for whom? Initial images from the social dimension of innovation", *International Journal of Innovation and Sustainable Development*, Vol. 4 No. 4, pp. 231-252.
- Sol, J., van der Wal, M.M., Beers, P.J. and Wals, A.E. (2018), "Reframing the future: the role of reflexivity in governance networks in sustainability transitions", *Environmental Education Research*, Vol. 24 No. 9, pp. 1383-1405.
- Stark, A. (2014), "Bureaucratic values and resilience: an exploration of crisis management adaptation", *Public Administration*, Vol. 92 No. 3, pp. 692-706.
- Stirling, A. (2006), "Precaution, foresight and sustainability: reflection and reflexivity in the governance of science and technology", *Reflexive Governance for Sustainable Development*, Elgar, Cheltenham, pp. 225-272.
- Tacoli, C. (2009), "Crisis or adaptation? Migration and climate change in a context of high mobility", *Environment and Urbanization*, Vol. 21 No. 2, pp. 513-525.
- Van Assche, K., Duineveld, M. and Beunen, R. (2014), "Power and contingency in planning", *Environment and Planning A: Economy and Space*, Vol. 46 No. 10, pp. 2385-2400.

**Corresponding author**

Vladislav Valentinov can be contacted at: [valentinov@iamo.de](mailto:valentinov@iamo.de)