

Polycentric Governing and Polycentric Governance

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Introduction

In general, many quasi-autonomous actors interact in water management. They include water users, government agencies (covering agriculture, environment, public works, and police forces), private companies (working on water, sanitation, industry, and forestry), and civil society organizations (addressing environmental, economic, cultural, and social issues). Interactions between these multiple actors affect a host of policy issues, including water quality and quantity, agricultural production, water for consumers, landscape, and biodiversity. This setting illustrates polycentric governance from the perspective of the Bloomington School of Political Economy. This approach asks: when, how, and why does such ‘polycentric’ governance function sustainably to the benefit of affected populations; and under what circumstances might it not deliver on expectations or even cause harms?

This chapter explains the concept of polycentric governance in the tradition of the Bloomington School and how this notion can contribute to understanding polycentric governing, including with reference to this book’s three themes of techniques, legitimacy, and power. Polycentric *governance* is here a more specific perspective than polycentric *governing*. While the latter is more vaguely bounded, covering the many different approaches pursued in this book, the present chapter treats polycentric governance as rooted in the Bloomington School (Cole and McGinnis 2014). This perspective, founded in the 1960s by Vincent and Elinor Ostrom, understands polycentric governance in an institutionalist sense to involve interactions between multiple formally de facto independent but interdependent decision centres.

The Ostroms were particularly interested in the provision and production of collective goods (both public goods such as public safety and common

pool resources such as groundwater, where consumption by some affects others' possibilities to consume). 'Production' in this context refers to the process of combining inputs to generate a collective good. 'Provision' refers to how much of particular collective goods are supplied to a population, including also processes such as monitoring and enforcement of rule compliance, or financing. Provision and production may involve the same or different decision centres.

The Ostroms and their colleagues wondered how best to deliver collective goods (such as policing, schooling, water services, sports facilities, clean lakes, and other infrastructure) in large metropolitan areas. In these contexts, actors who may hold different values and preferences seek to have their demands met. The Ostroms investigated what societal organization could meet citizen needs for collective goods most effectively and efficiently. They hypothesized that bottom-up self-organization of local users, together with relevant public, private, and civil society actors, would provide the highest societal welfare. Elinor Ostrom's work on collective action mainly looked at the local sphere (Ostrom 1990). However, in later life she extended these ideas also to global governance, especially of climate (Ostrom 2010).

At the time that the Ostroms developed their ideas, discussion of governance arrangements mainly revolved around two models (see also Hardin 1968). The first emphasized private decentralized provision through the market, but this approach was largely discredited as a way to effectively and efficiently deliver collective goods. Where markets did not deliver, prevailing academic discourse of the day advocated central state governance, so that the national government would in top-down fashion supply education, infrastructure, clean air, and so on. Particularly Vincent Ostrom and colleagues suggested polycentric governance as a third alternative model. Using examples from several metropolitan areas in the US, they hypothesized that multiple overlapping actors were better than monocentric statist arrangements at trading off criteria such as efficiency, cost-effectiveness, democratic representativeness, and political control (McGinnis and Ostrom 2011).

Polycentric governance in the Ostrom sense refers to a configuration of individual and group actors that self-organize to cater for the particular demands of a collective. The group of actors engaged has also been called the Public Service Industry (PSI) (Advisory Commission on Intergovernmental Relations 1987). The Bloomington School perspective calls relevant players 'decision centres', in order to highlight that what matters is autonomy in decision-making of the individual or collective actors involved. Such decision centres include producers, distributors, and consumers as well as

public sector and civil society actors. These decision centres coordinate their efforts because of their functional, biophysical, and/or institutional interdependence with each other. An individual can potentially be involved in multiple polycentric landscapes, each of them supplying a different collective good. Such polycentrism allows citizens to best discipline providers of collective goods in order to have their preferences heard and realized (Thiel and Moser 2018).

The Ostroms' hypothesis that polycentric governance performs better than centralized governance in providing for collective goods was inspired by a normatively celebrated vision of the United States of America as a bottom-up polity. Such a concept is reflected in the eighteenth-century Federalist Papers by Alexander Hamilton, John Jay, and James Madison as well as in Alexis de Tocqueville's nineteenth-century extolment of the American experiment (Aligică and Boettke 2009). Bottom-up self-organization of actors at different levels to form overlapping federations figures crucially in this conception.

The Ostroms developed their work on polycentric governance over several decades along several tracks. On one track, they further elaborated their normative conception of polycentric governance, adding progressively more detail on how polycentric governance should ideally be constructed in order to support collective problem-solving. Second, they scrutinized empirically whether polycentric governance for different collective goods indeed performed better than centralized governance. Third, they studied the conditions under which polycentric governance for the provision of collective goods performed well in the medium to long term. This third track or research became widely recognized in academia and beyond, particularly with regard to the governance of environmental issues. It led to the identification of what Elinor Ostrom called the 'Design Principles' for sustainable collective action (Ostrom 1990; Aligică and Boettke 2009).

The rest of this chapter identifies both contributions and limitations of Bloomington School ideas of polycentric governance as an approach to polycentric governing. First, we describe the Ostrom concept of polycentric governance and the dimensions that this analytical lens highlights in explaining performance and change of institutions (Thiel 2017; Blomquist and Schroeder 2019). Subsequently, we explore polycentric governance more normatively. We then relate polycentric governance, in the Bloomington sense, to this volume's three unifying themes of techniques, power, and legitimacy. Finally, we summarize how polycentric governance contributes to our understanding of polycentric governing and the way forward.

Theorizing Polycentric Governance

Concepts, heuristics, frameworks, and theories shape the attention of researchers. They are like magnifying glasses that focus the attention of researchers and reduce complexity to enable better understanding and potentially even explaining of empirics. Implicitly or explicitly, these perspectives make assumptions about what matters for comprehending and shaping empirical phenomena.

Key Concepts

Starting with governance, we define it as a ‘process by which the repertoire of rules, norms, and strategies that guide behaviour within a given realm of policy interactions are formed, applied, interpreted, and reformed’ (McGinnis 2011a, 171). Such regulation can happen in a centralized top-down fashion through the nation-state, but governance can also take other forms, of which polycentrism is an example.

As for ‘polycentricity’ (which we here consider to be synonymous with polycentric governance), Vincent Ostrom and his colleagues took this term from biology and applied it to institutions. They defined the concept as follows:

Polycentric connotes many centers of decision-making which are formally independent of each other. Whether they actually function independently, or instead constitute an interdependent system of relations, is an empirical question in particular cases.

(Ostrom et al. 1961, 831)

This formulation indicates that, strictly speaking, the only constellation that polycentric governance is not interested to study is monocentric governance, i.e. situations of top-down rule where outcomes are determined by one decision-making centre. In this case, a single individual or collective actor decides how to provide collective (public) goods or common pool resources.

The initial definition of polycentric governance further highlights its realm of interest and the purpose of studying polycentric governance. Thus, Ostrom, Tiebout, and Warren wrote that:

[t]o the extent [that decision-making centres] take each other into account in competitive relationships, enter into various contractual and cooperative undertakings or have recourse to central mechanisms to resolve conflicts . . . the various

political jurisdictions . . . may function in a coherent manner with consistent and predictable patterns of interacting behaviour. To the extent that this is so, they may be said to function as a ‘system’.

(Ostrom et al. 1961, 831)

Thus, the study of polycentric governance is interested in the ways that decision-centres relate to each other and whether this interplay generates coordination through information sharing, mutual adaptation, and predictable patterns of behaviour among actors, as opposed to fragmentation, rent-seeking, or unregularized interactions. For example, an ideal-type polycentric governance system for water would involve well-articulated interaction of consumers and authorities to provide for, produce, and finance technological interventions, develop knowledge, pursue policy measures, and so on (Lankford and Hepworth 2010).

With regard to conceptual underpinnings, it should be noted that research on polycentric governance in the vein of the Bloomington School adopts a position of methodological institutionalism (Vatn 2005). This ontology roots explanations of social conditions (such as governance) in the choices that actors make, which in turn are crucially guided by institutions such as rules, norms, and strategies that structure social interactions. This assumption concerning the core role of institutions differentiates the Bloomington School from some of the approaches to polycentric governing from the legal, relational, and structural perspectives discussed elsewhere in this book. Those other modes of analysis locate the primary causes of governance not in actor choices, but respectively in laws, practices, and underlying social orders.

In the Bloomington conception, institutional rational choice theory awards norms and rules a particular role. The approach holds that individuals make their choices under conditions of ‘bounded rationality’: bounded in the sense that individuals only have the information that is available to them and also have limited capacities to process that information. Given these limitations, institutions obtain a central role in shaping behaviour. They give orientation about the options available, as well as about the most beneficial options. Correspondingly, institutions have also been conceptualized as rules of the game in instances of strategic interdependence (North 1990).

While all research on polycentric governance rests on methodological institutionalism (Vatn 2005) and institutional rational choice, one can distinguish between positive and normative strands of Bloomington School work. Positive perspectives aim to understand *actual* interactions between

multiple centres of decision-making. These approaches examine which concrete conditions matter for the performance of polycentric governance and how one can with reference to these conditions explain change in polycentric governance. In contrast, normative perspectives seek to establish *desirable* kinds of polycentric governance, for example, because it supports sustainable provisioning and production of collective goods. Normative approaches seek to identify ideal types of polycentric governance and to establish why these ideal types are desirable. The following paragraphs first elaborate on positive questions of explaining performance and change of polycentric governance and thereafter turn to normative understandings of polycentric governance.

Positive Analysis

In a positive vein, Thiel and Moser identify foundational conditions that shape the performance of polycentric governance. They highlight the role of three types of factors: namely, related to community characteristics, social problem features, and overarching rules (Thiel and Moser 2018; Thiel and Moser-Priewich 2019). This framework builds on Elinor Ostrom's Institutional Analysis and Development (IAD) framework, but extends it beyond the local level to larger scales of activity. The IAD framework examines decisions of each component decision center within a system-level perspective of polycentric governance (McGinnis 2011b).

As regards foundational conditions shaping polycentric governance, community characteristics particularly concern the level of heterogeneity among members of the collective: e.g. in relation to values, socio-economic characteristics, etc. Thus, for example, it would matter for outcomes of polycentric governance if a collective that strives for climate protection or watershed management includes similarly or diversely inclined actors. Heterogeneity in demands for collective goods across a community affects its overall organizability. Likewise, provisioning of collective goods may be compromised if capacities to pay for them varies across the population involved. Actors with different characteristics can also prioritize different performance criteria: e.g. effectiveness, political representation, equity, resilience, sustainability (Ostrom et al. 1961; Aligica and Tarko 2012). Different types of actors may also shape polycentric governance of a collective good, such as water quality in a river delta, in different ways, as is the case for farmers, environmentalists, and urban populations. However, while heterogeneity of

community characteristics is presumed to be significant for outcomes of polycentric governance, research has so far found no clear pattern as to the direction of the effects (Ahn et al. 2003).

Next to community characteristics, polycentric governance is also shaped by variations in features of the social problem being addressed. Here the underlying idea is that actors will establish governance arrangements that minimize transaction costs in relation to the characteristics of the problem at hand. Relevant in this regard, for example, could be the spatial scale (local, national, global) on which collective goods are provided most cost-effectively. Alternatively, problem features such as uncertainty and complexity could shape whether and how polycentric governance transpires (Williamson 1991). Or joint production through polycentric arrangements could be encouraged where the issue at hand involves high benefits of coordination. Or frequency of transactions can matter for the occurrence and shape of polycentric governance where per unit transaction costs reduce with large amounts of activity (Hagedorn 2008; Hagedorn 2015; Thiel et al. 2016). Owing to such variation in social problem characteristics, polycentric governance likely takes different forms, say, between a local watershed and global climate.

Alongside community characteristics and problem features, overarching rules are a third main element that is expected to shape how actors engage in polycentric governance. In the Bloomington School perspective, overarching rules refer to the formal and informal institutional arrangements that order day-to-day decisions that are institutionalized at the operational level (Ostrom 2005). For example, overarching rules prescribe who takes decisions on day-to-day practices of water management. The definition of polycentric governance itself highlights the role of overarching rules when it refers to the role of multiple independent but interdependent decision centres. Overarching rules define the degree of formal independence of decision centres as well as their capacities to affect decisions and the options available to them. Similarly, overarching rules frame the options that each decision centre has in relation to other decision centres, be it through contractual relations, hierarchical relations, competitive relations, or cooperative relations. Empirically most likely mixes of contractual, hierarchical, competitive, and cooperative arrangements are observed (Thompson 1991; Pahl-Wostl et al. 2020).

In sum, then, we may explain the performance of polycentric governance in providing collective goods by examining the heterogeneity of the

population being governed, the characteristics of the problem to be governed, and the overarching rules that structure the polycentric system. In principle, we may apply this framework of analysis to any kind of collective good that polycentric governance may seek to supply, including a watershed, the Internet, or upholding human rights in respect of global migration.

Attention to the same factors can also help to explain institutional change in polycentric governance. In some cases, changes in homogeneity/heterogeneity of the community, the features of the issue to be governed, and the overarching rules may induce institutional evolution on their own, as contextual forces. In other cases, institutional change may be instigated by discontent of involved actors with the way that polycentric governance performs at a certain moment in time—and then changes in the three factors shape how that discontent plays out in rearrangements of the polycentric system at hand (what much political science literature calls ‘feedbacks’) (Thiel 2014).

Either way, institutional change in polycentric governance transpires through negotiation among the interdependent actors. It is therefore vital to understand the preferences and perceptions of the actors that dominate a particular set of negotiations about institutional design and change. Actors who engage in the negotiation will beforehand calculate the expected costs and benefits and accordingly decide whether and how to negotiate.

Several examples may illustrate these dynamics. With regard to community characteristics, for instance, changes in demography and/or the distribution of economic wealth may make many people who pay for a public health care system unhappy. As a result of such changes in the heterogeneity of the collective involved, polycentric governance of health may be renegotiated. As an example regarding social problem features, remote sensing could make monitoring of farmers’ water use more economical. As a result, actors who previously refused to take responsibility for monitoring governance of water may become keen to renegotiate their role in this process. To take another example, this time regarding changes in overarching rules, an altered constitution or new legislation may give provincial governments a new responsibility to implement climate protection goals. As a result, these authorities may decide to renegotiate access to climate protection funds and monitoring of related activities. Thus polycentric governance undergoes an evolutionary process of institutional change in which different mechanisms come to the fore depending on the context at hand (Norgaard 1994; Folke et al. 2005; Thiel 2014; Thiel et al. 2019).

Normative Analysis

Early writings of the Bloomington School on polycentric governance hardly distinguished explicitly the positive perspective from the normative perspective. While the former concentrates on how polycentric operates in particular concrete cases, the latter describes how polycentric governance should be constituted in the interest of overall societal welfare, in the sense of maximal satisfaction of citizens and consumers.

Polycentric governance has been hailed for several normative aspects. For example, redundancies between decision centres in polycentric governance are held to promote the system's resilience, even if it was to the detriment of efficiency. Connected to resilience, adaptability is considered to be another key virtue of polycentric governance. Also, polycentric governance allegedly more easily supplies collective goods where institutions fit the social problem characteristics at hand (Folke et al. 2007; Ekstrom and Young 2009; Biggs et al. 2015; Carlisle and Gruby 2017). Normative proponents of polycentric governance affirm that, when members of a collective are unhappy with a particular arrangement, the system will induce negotiations for an evolutionary adaptation or self-correction of the system so that it better delivers on the people's wishes and priorities.

More specifically, normatively defensible polycentric governance should meet three criteria. First, actors should be able to express and make heard their concerns over how a polycentric governance arrangement (fails to) provide collective goods. This is the criterion of *voice*. Second, members of a collective should be able to leave an existing collective and with that option exert pressure to change the polycentric governance arrangement. This is the criterion of *exit*. Third, members of a collective who are unsatisfied should be able to establish a new collective that better meets their needs. This is the criterion of *self-organization*. Together, these three criteria cater to orderly contestation (McGinnis 2019; McGinnis et al. 2020). The fulfilment of these three criteria is part and parcel of the adaptiveness of polycentric governance. Rights to voice, exit, and self-organization can induce competition among providers to better meet demands for collective goods. Colloquially, this dynamic is described as a system of checks and balances. However, the degree to which actors can exert such pressures depends in part on the social problem at hand, whose characteristics determine the transaction costs of creating alternative collectives. For example, polycentric governance of health should in this normative vision involve contestation by consumers and competition among providers.

Mechanisms for voice, exit, and self-organization need support from overarching rules, both formal and informal (Thiel 2017). Liberal theorists in the Bloomington School tradition expect an idealized market economy and democratic polity to provide the necessary conditions for effective polycentric governance. In such a situation, well-informed consumers have ample opportunities to choose providers, and well-educated citizens can exert checks and balances across polycentric governance arrangements.

An additional normative criterion relates to coordination. This quality surfaces already in the seminal definition of polycentric governance as having ‘consistent and predictable patterns of interacting behaviour’. Given the assumption that many autonomous decision centers are involved in polycentric governance, coordination is of crucial importance. Indeed, polycentric governance is often critiqued for having high transaction costs of coordination, for example in comparison to hierarchical governance (McGinnis and Hanisch 2005; Stephan et al. 2019).

Normative theory on polycentric governance is quite specific as regards the formulation of overarching rules, emphasizing the need for an institutional framework that enables effective performance and evolutionary change through contestation and adaptation. In addition, the normative approach holds that actor orientations need to be conducive to collective action through decentralized self-organization. Moreover, actors need to be learners who strive to improve their well-being over time. Ostrom (2014, 2) underlines the requirement for ‘informed citizens ... [who are] able to challenge efforts to take over their democratic system by powerful autocrats’. Ostrom also considers it necessary for effective polycentric governance to have leaders with public entrepreneurship and artisanship (Ostrom 2015).

Finally from a normative perspective, Bloomington School thinking maintains that, for polycentric governance to operate productively, the collective needs amidst its heterogeneity nevertheless to have a certain degree of common values: that is, a shared basic judgement about what is right or wrong, or what is valuable and what is not. A key standard in this regard is the so-called ‘Golden Rule’, which affirms that people should not do to others what they would not want to suffer themselves (Ostrom 2008). The Golden Rule provides a basis to make moral distinctions between what is permitted and what is prohibited (Ostrom 1990). Without normative grounding in the Golden Rule, polycentric governance could easily end up in totalitarian relations.

It should be noted that both the positive and normative strands of polycentric governance research tend to be rather ahistorical and culturally blind (see also Schneider (Chapter 2) and Fakhoury and Icaza (Chapter 3) in this volume). Bloomington School theory looks for explanatory factors and principles that apply irrespective of spatio-temporal context. For that purpose it abstracts from certain historical or geographical constellations and suggests these principles for scrutiny beyond particular cases.

Transnationalizing Polycentric Governance

As theorized above, polycentric governance originally addressed the performance of collective action within nation-states, with special attention to local collective action. The question arises whether and how the approach could also relate to transnational governing. Indeed, more recently polycentric governance has been examined in respect of transnational and global spheres (Ostrom 2010; Galaz et al. 2012; Cole 2015; Dorsch and Flachsland 2017; Jordan et al. 2018). Is this move useful for an understanding of polycentric governing?

From the perspective of positive theory, the shift in scale would ask what factors facilitate and hamper coordination at and across these additional levels of governance? How do heterogeneity of the community, social problem characteristics, and overarching rules shape transnational polycentric governance? How do these aspects affect sustainable evolution of polycentric governance of collective goods in the long term? Indeed, comparisons across levels of analysis could enhance our overall understanding of polycentric governance processes, in line with the Ostroms' idea to use their institutional analysis to 'understand the universal building blocks' of governance (Ostrom 2005). Yet only the work of Jordan and colleagues (2018) on climate governance has specifically enquired how incorporation of the transnational level impacts polycentric governance.

From the perspective of normative theory, a further set of questions arises when one 'globalizes' polycentric governance. For example, can we expect that coercion or hierarchy are organized differently in transnational governance, where these qualities are not linked to the state and specific national jurisdictions? Indeed, lack of an overarching authority (like a world government) could make transnational governance an ideal context for polycentric processes. Transnational governance lacks the context of a federal state with clearly delineated and formally independent judicial, executive, and legislative powers. It is difficult to pin down the equivalent of these aspects in the

transnational arena. Thus, the emergence and functioning of each of these constitutional components needs to be fundamentally rethought in respect of transnational governance.

In addition, we need to enquire how voice, exit, and self-organization operate in the transnational realm in comparison to the national and local arenas. Mechanisms of voice are more opaque in transnational governance, where modes of accountability are less clear. For example, transnational governance normally lacks general elections and public referenda through which citizens can express their views and discontents. Meanwhile, exit can be more costly or even impossible in the transnational realm, for example, where global public goods are at stake. Also, the self-organization of public goods provision requires more resources in the transnational realm as compared to the national realm. Finally, underlying presumptions about the presence of shared values and adherence to the Golden Rule need to be corroborated for transnational governance. Values and further features of members of transnational collectives can be presumed to be more heterogeneous than for national and local collectives. In sum, transnationalizing the theory of polycentric governance is thought-provoking, but also needs much further consideration.

Themes: Techniques, Legitimacy, and Power

Having set out above the general features of polycentric governance in the Bloomington tradition, we now compare the approach with broader ideas of polycentric governing, particularly around the themes of techniques, legitimacy, and power. We relate these three issues especially to Bloomington School concerns to analyse the performance of polycentric governance and to understand institutional change.

Techniques

Techniques address the instruments of governing: how it is done. In this respect the polycentric governance lens (see Figure 1) focuses especially on the roles of institutions and values. The approach understands institutions as ‘rules in use’, meaning rules as actually practised in society. Meanwhile values refer to basic normative positions on how society should in principle be ideally organized. Thus, polycentric governance theory analyses interactions between multiple independent decision-making centres, with a focus on how

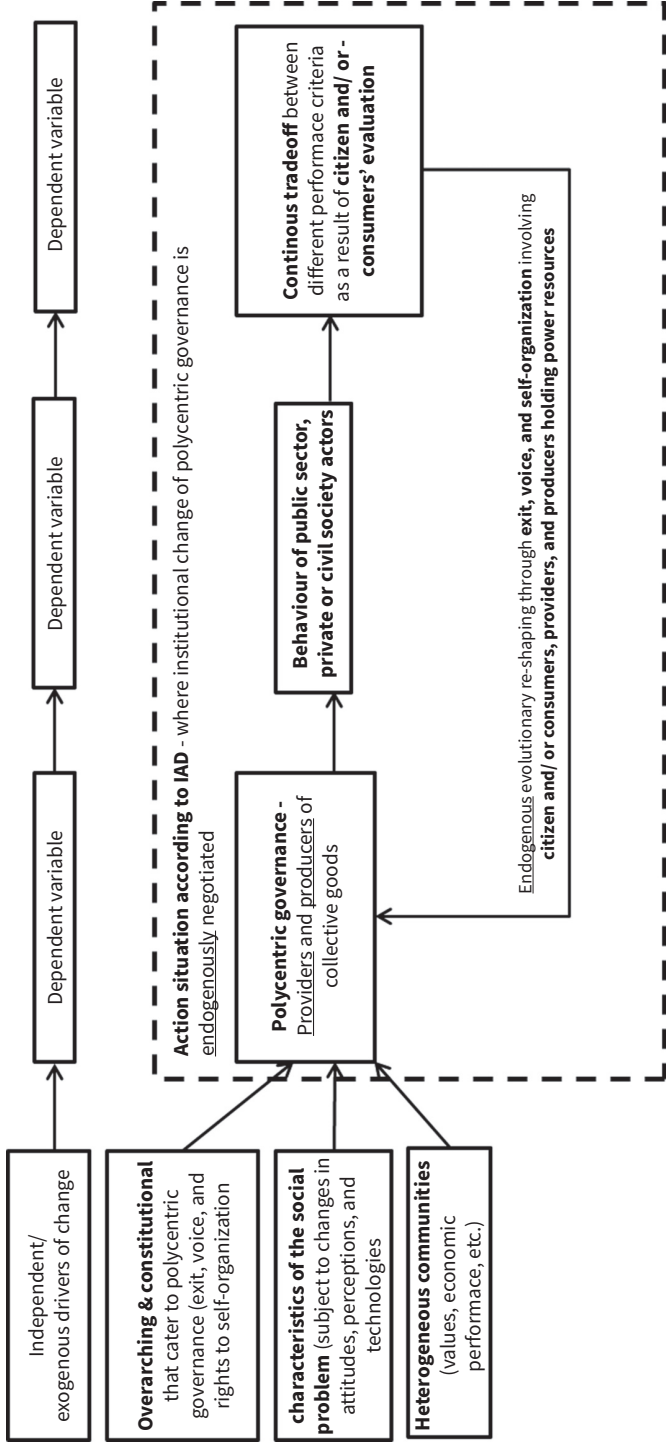


Figure 1 Polycentric governance lens: dotted line indicates where evolutionary institutional change is negotiated
 Source: Thiel and Moser-Priewich 2019. © Cambridge University Press 2019. Reprinted with permission.

institutions and values shape the strategic choices of actors as they pursue the provision and production of collective goods.

Institutions are core for the way that multiple decision centres and their interactions address societal problems of collective action. Institutions serve to establish order and predictability, thereby reducing uncertainty and better securing the gains from actor interactions and cooperation. For example, constitutional arrangements into which governance is embedded can promote predictable patterns of bottom-up self-organization for the provision of collective goods. A clear division of executive, legislative, and judiciary roles can be helpful in this regard.

The importance of institutional techniques is also underscored in Elinor Ostrom's Design Principles for sustainable cooperation. These guidelines identify a range of institutional conditions that enhance performance in polycentric governance. They include, for example: (a) clearly identifying the members of a collective; (b) determining fair distribution of gains; (c) setting up effective monitoring mechanisms; (d) setting out (accessible and easily implemented) procedures for conflict resolution; and (e) defining (graduated) sanctions (Ostrom 1990). According to Ostrom, conformity with these techniques increases the likelihood of successful collective action, while defiance of these guidelines helps to explain failure of collective action.

As for values, polycentric governance highlights the role of shared norms such as the Golden Rule in actor interactions. Tapping into these values and promoting them is also a key 'technique' of governing. For example, if one group of actors has no solidarity with the health status of others, while another group promotes equitable health treatment for all, then their different value positions will be difficult to combine in the same governance arrangement for the provision of public health.

Other values that, in the Bloomington perspective, work as techniques for successful polycentric governance include transparency and accountability, freedom of speech, freedom of association (e.g. in a political party), and freedom to exit from an association (Ostrom 1999). In a water management system, for example, such norms determine whether consumers have access to information about water quality, whether they can form associations for joint exploitation of groundwater, and whether they can make claims to higher-level government entities for the provision of water services.

A major challenge to shared values can arise when polycentric governance produces 'losers' or marginalized actors. Indeed, a major shortcoming of polycentric governance scholarship is that it tends to ignore political questions about inequalities, as well as the implications of marginalization for

societal order and ways to integrate subordinated actors into polycentric governance (Thiel and Swyngedouw 2019). Instead, the theory presumes that any collective will automatically self-correct for marginalization by initiating institutional change through voice, exit, and self-organization. We return to this issue below in the thematic section on power.

Legitimacy

As an institutionalist theory, the polycentric governance approach analyzes legitimacy primarily in relation to institutional qualities. In other words, scholars in the Ostrom/Bloomington tradition establish whether a polycentric governance arrangement has the right to rule by examining how well the workings of institutions are seen to meet certain criteria. Compared to other contributions in this book, an institutionalist perspective on legitimacy (with its primary emphasis on organizational matters) is different from a legal approach (which roots legitimacy in the law), a relational approach (with its attention to legitimation processes through routine practices), and a macro structural approach (which links legitimacy beliefs to reigning societal norms and the underlying social order). Key yardsticks for legitimacy from an Ostrom/Bloomington perspective include how far institutions perform effectively, to what extent procedures are democratic, and whether polycentric governance upholds the Golden Rule.

In terms of effective performance, polycentric governance is regarded as legitimate when it delivers on the expectations of consumers and citizens (the Ostroms frequently used the term ‘citizen-consumers’). Scholars of polycentric governance have suggested many criteria for evaluating effective performance as a source of legitimacy (Ostrom et al. 1993). For example, Ostrom (2005) has highlighted standards of economic efficiency (i.e. delivering highest benefits at the lowest costs), social equity (i.e. taking due account of ability to pay and distributing benefits fairly), adaptability (i.e. being flexible as well as resilient), and accountability (i.e. delivering in a transparent way and holding those who deliver responsible for their actions and omissions). Further particular emphasis is laid on effective coordination of polycentric governance versus its fragmentation.

In terms of democratic procedure, polycentric governance is viewed as legitimate when it enacts bottom-up self-organization of affected citizens. In particular, when polycentric governance processes do not fulfil desired performance, then consumers and citizens should be in a position to delegitimize the (non-)providers of these goods. For example, an environmental NGO

might withdraw from an underperforming global environmental production standard and organize its own label instead. With democratic procedures of voice, exit, and self-organization, citizen-consumers are able to legitimize/sustain or delegitimize/change polycentric governance, thereby operating it in a way that is coherent with their values.

In terms of moral standards, polycentric governance is seen as legitimate insofar as its processes adhere to the Golden Rule as the ultimate moral standard to overcome dangers of totalitarianism. Yet whether adherence to the Golden Rule is in fact sufficient to safeguard against totalitarianism needs further theoretical elaboration and empirical investigation. Other students of polycentric governance have assessed legitimacy on moral grounds of general fairness, the prevention of opportunistic behaviour, and equal punishment in the case of wrongdoing (Carlisle and Gruby 2017; Koontz et al. 2019).

Power

In relation to the famous threefold distinction of power introduced by Lukes (2005), polycentric governance considers power especially in its first dimension as an actor's ability to achieve certain aims. This theory is less concerned with Lukes' second dimension of power (i.e. as the capacity to set the agenda) or third dimension of power (i.e. as emanating from social structure). Thus, Bloomington School analysis neglects how structural powers become instituted and how social forces form actor preferences, attitudes, values, and strategies (Scott 2012; Clement 2013). Likewise, the approach does not address how power shapes what is and is not considered legitimate in polycentric governance. However, recently several papers have expanded Bloomington conceptions to take account of such more subtle forms of power (Kashwan 2016; Bennett et al. 2018; Morrison et al. 2019).

In relation to water management, for example, a Bloomington assessment of power asks if a given instance of polycentric governance enables sustainable provision and production of water-related collective goods, such as water quality, quantity, and broader ecosystem services. In this regard the analysis examines issues such as access to water, its financing, democratic representation, and information about water use, as well as rights and capacities for self-organization. In contrast, this approach is not interested in the power that may lie in water management paradigms, as the relational perspectives addressed in Part IV of this book might emphasize. The perspective also neglects how capacities for water use relate to social structures, in the vein of the perspectives covered in Part V of this book.

Even within the narrower conception of power as actor capacities, questions of power tend to come in only implicitly. For example, Ostrom's first Design Principle, delineating clear boundaries of a collective, obviously confers power to some and not to others. Similarly, introducing actors that monitor collective action awards particular powers. Actors may have power through differential access to information or through accountability mechanisms. Yet polycentric governance analysis is not interested in these types of power per se, but in what its distribution means for the sustainable provisioning and production of collective goods.

Relatedly, polycentric governance is interested in justice issues mainly when they might put successful polycentric governance at risk. Where the distribution of power threatens to undermine collective action and coordination, then polycentric governance theorists would advocate reshaping the distribution of power through institutional change and crafting (Thiel et al. 2015). Yet, here too, the emphasis is on understanding institutional performance and change and not on rectifying negative implications for social justice.

Inattention to social justice questions is also reflected in the neglect in polycentric governance research of marginalized positions within the collective in question. Idealized normative versions of polycentric governance might argue that marginalized actors could self-organize to have their claims heard. However, such a proposition neglects the resources that are necessary for self-organization, which marginalized groups such as the landless, the populations of small island states, and future generations generally lack. Nor does polycentric governance theory contemplate any kind of redistribution of endowments, which could empower marginalized groups to self-organize. A reason for this neglect seems to be a worry, rooted in neoclassical economics, that redistributive mechanisms encourage inefficiency and inertia (Thiel and Swyngedouw 2019). As a result it leaves out broader political economy questions such as who holds resources for self-organization and making themselves heard in political struggles (Olson 1994).

Conclusion

This chapter has provided an introduction to thinking on polycentric governance from the perspective of the Bloomington School of Political Economy. We have defined polycentric governance, elaborated its uses as an analytical lens, and distinguished positive and normative perspectives. Subsequently, the chapter showed how the approach theorizes evolutionary institutional

change, in the process examining issues of techniques, legitimacy, power, and agency.

The Bloomington research agenda aims at theory-building for problem-solving. Recently, literature in this field has grown significantly. Thanks to this research, we understand much better why particular institutions work well, especially in relation to local collective action (Ostrom 2007). Work on polycentric governance builds on this research, extending it to the supra-local and recently also transnational realm.

The Bloomington School of Political Economy explores which modes of polycentric governance contribute to sustainable production and provision of collective goods. It treats institutions as techniques and has particular interest in institutional change as an evolutionary adaptation of governance. The perspective regards legitimacy as instrumental to successful collective action. With respect to power, the approach tends to neglect subtle forms of power as well as marginalized people and their limited abilities to be heard in institutionalized politics.

Recent research in the Bloomington tradition seeks to specify how the tools of conventional, local collective action research (such as the IAD) can apply to higher, system-level polycentric governance. However, this endeavour confronts great complexity, given the diversity of objects of research and the multiple levels of analysis involved. In this regard it would help if polycentric governance scholars developed a shared analytical framework to aggregate knowledge and if they made more consistent usage of key concepts.

Further, polycentric governance research needs to address a greater diversity of venues of decision-making that shape polycentric governance and its performance. In particular, future work needs to address arenas where neglected forms of power are exercised (Morrison et al. 2019). Further, more attention is needed to the marginalization of actors in provisioning of collective goods. In this regard, recent efforts to enrich the Bloomington School with thinking from political ecology and constructivism are welcome (Clement 2013). At the same time, polycentric governance scholars need to keep focus on their core question of which types of institutional arrangements contribute to sustainable long-term production and provision of collective goods. In this regard, the Bloomington School should more explicitly acknowledge that sustainable supply of collective goods requires not only coordination and adaptation, but also how it relates to democratic qualities of respectful contestation. An extension to more systematic analysis of polycentric governance in the transnational realm promises to be an inspiring extension of this literature—and also a way to further develop its conceptual underpinnings.

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