

1. Introduction

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Climate change is the most pressing environmental problem facing the world today; it represents the mother of all global collective action problems. Freshwater management, while not requiring a global solution, represents a ubiquitous problem. Worldwide, problems of water supply and quality are expected to be exacerbated by global climate change. A range of tools is available to address each of these problems yet they remain poorly managed, particularly in the case of climate change mitigation. The stumbling block is not an absence of technical solutions but, rather, political and institutional factors. Thus it matters how successful different forms of governance have been in tackling these problems.

Policy studies, political science and public administration have all, in recent years, witnessed a turn towards governance, away from government, as the relevant object of study. Government implies, 'hierarchical decision-making structures and the centrality of public actors ... the former denotes the participation of public and private actors, as well non-hierarchical forms of decision-making' (Kohler-Koch and Rittberger 2006, 28). There is a sense that policy making is now too complex and too messy to be contained within the vessels of elected governments and bureaucracies:

No single actor, public or private, has all [the] knowledge and information required to solve complex, dynamic and diversified problems; no actor has sufficient overview to make the application of particular instruments effective; no single actor has sufficient action potential to dominate unilaterally in a particular governing model (Kooiman 1993, 4).

National governments, in particular, have lost authority. From above their sovereign powers are circumscribed by international organizations, or supranational ones such as the European Union (EU). From below they have either devolved tasks to lower-level governments or have fewer resources to control activities at the subnational level.

This book takes as its focus patterns of environmental policy making in systems of multilevel governance (MLG). It examines environmental policies on climate and water in several such systems and critically examines widely held assumptions about them. By taking a comparative perspective, these chapters seek to shed light on which aspects of MLG seem to be generalizable across systems and which are *sui generis*. The European Union in particular, has been the focus of much theorizing, which assumes that the EU is unique (Kohler-Koch and Rittberger 2006, 33). However, any claims to uniqueness will have greater validity if made in comparison to similar objects.

In the case of environmental policy making, is it generally true that the national state in MLG has become weaker or is losing power to other levels? Are government authority and hierarchy becoming less important to environmental policy in federal-type systems? Lastly what can we conclude about variants of MLG and effects on environmental policy making?

DEFINITIONS OF MULTILEVEL GOVERNANCE

As the term ‘multilevel governance’ has become more commonplace, the ambiguity of its meaning has increased. This book will refer to two distinct meanings of the term. First, multilevel governance is used as a descriptive term for governance in federal systems that goes beyond the usual two levels that define federal systems. Second, it refers to the particular conception of multilevel governance embodied in the theory of multilevel governance originated by Liesbet Hooghe (1996) and Gary Marks (1993) to describe the evolving governance of the European Union (Hooghe and Marks 2001). In Marks’ definition (1993, 392), multilevel governance is ‘a system of continuous negotiation among nested governments at several organizational tiers.’

Although the term ‘multilevel governance’ originated as a theory about the development of the European Union, for environmental policy, it is now employed simply as a descriptive term, often entirely removed from the European context.¹ ‘Multilevel governance’ has filled the need for a term to describe the many levels of government involved a wide variety of policy areas. The terms ‘federal system’ or ‘federation’ typically focus on the activities of and relationship between the federal level of government and subnational units, such as provincial or state governments. (In the case of the European Union the two corresponding levels are the institutions of the European Union and the Member State governments.) This typology, however, is inadequate to capture what happens in policy

areas where local governments, as well as federal and sub-national levels, are important. Furthermore, a focus on federal structures does not incorporate the international level of governance, which is key in many policy areas. Climate change is a paradigm case of a policy where all four levels play a part in policy making and where the interaction between levels can affect activity at any level (Rabe 2007). This definition of multilevel governance can be thought of as ‘federalism plus:’ the two levels that define federal systems, augmented by the international/supranational level and/or the local level.

HOOGHE AND MARKS’ THEORY OF MULTILEVEL GOVERNANCE

Hooghe and Marks’ theory of multilevel governance clearly captures the idea of governance involving multiple levels, beyond federal and sub-national. However it goes considerably beyond that simple definition and beyond its vertical emphasis. Their theory entails broader empirical claims: predictions about the evolution of governance, as well as normative claims for multilevel governance.

Hooghe and Marks’ starting point was the unitary state. Studying European Union Member States, they observed that the nation state was weakening as power shifted upwards to the European Union but also downwards to regional governments. Further they argued that, not only did other levels matter more in governance, but that the sense of a hierarchical relationship between these levels was dissolving:

While national arenas remain important arenas for the formation of national government preferences, the multi-level governance model rejects the view that subnational actors are nested exclusively within them. Instead, subnational actors operate in both national and supranational arenas ... National governments ... share, rather than monopolize, control over many activities that take place in their respective territories. (Hooghe and Marks 2001, 4)

The assumption that higher levels of government were placed in a hierarchical order over the lower, having authority over them, was also weakening.

In addition to a weakening of vertical, top-down authority, Hooghe and Marks also saw a weakening of government authority in general, vis-à-vis other actors in society, hence their preference for the term ‘governance’ over ‘government.’ Government control is being replaced by steering. Thus, in their conception of multilevel governance, vertical authority between levels of government is weakened but so is the

horizontal authority of all levels of government over other societal actors. Thus for Hooghe and Marks all levels of government are becoming less important in policy making as non-state actors become more important.

In addition to claiming that this weakening of authority is a trend, they go further and make the normative claim that these developments represent *progress*. Hooghe and Marks (2003, 233) state that:

[c]entralized authority – command and control – has few advocates. Modern governance is – and, according to many, should be – dispersed across multiple centers of authority. But how should multi-level governance be organized?

This is familiar territory to economists studying fiscal federalism and optimal jurisdiction, who ask ‘which level of government is best suited to which tasks? Why?’ (Dafflon 2006). Based on the theory of optimal jurisdiction, environmental governance may not be well suited to fragmentation and decentralization (Dalmazzone 2006). Many environmental problems involve externalities or spillovers: governments may cause environmental damage outside their own boundaries, which economists would predict governments don’t have much incentive to address.

Hooghe and Marks’ Multilevel Governance has been criticized for several reasons (George 2004). Jordan (2001, 201) presents some of the common criticisms. First, he characterizes Hooghe and Marks’ concept of MLG as ‘thick description’ rather than theory, because it does not offer a causal account for why these changes are occurring. He goes on to claim that MLG theory significantly overstates the autonomy of subnational actors in the EU. In particular, he cautions about drawing conclusions about subnational governments’ actual *influence* on policy based on their activity or degree of mobilization in Brussels.

CLAIMS ABOUT DECENTRALIZATION

Multilevel governance theory also makes normative claims about the decentring and fragmentation of governing and government authority: ‘dispersion of governance across multiple jurisdictions is both more efficient than and normatively superior to the central state monopoly’ (Hooghe and Marks 2004, 16). At present decentralization is in fashion among policy makers and academics (Treisman 2007, 1). For example, since 1987 the subsidiarity principle has, in theory, determined the division of competencies in European Union environmental policy making: that decisions should be made at the lowest possible level of

government.² The general claims typically advanced for political decentralization include: greater responsiveness and accountability to the public; more policy innovation; and better adaptation to local conditions (Treisman 2007).

In the US, the individual states have long been hailed as ‘laboratories of democracy’, a term coined by US Supreme Court Justice Louis Brandeis. Brandeis postulated a process by which state governments were engaged in innovation and experimentation, to be followed by the subsequent diffusion of best policies to other states (Tarr 2001). Treisman (2007, 234), examining social policy, goes further, arguing that in federal systems, such as Canada, social policy innovation has occurred at the subnational level because subnational governments have been able to block federal policy innovations.

Scholarship sceptical of decentralization, particularly with respect to the environment and natural resource management, has emerged in response. Treisman’s (2007) wide-ranging critique of political decentralization argues that there is little basis for the claims made in favour of decentralization and that empirical studies are inconclusive. With regard to innovation and environmental policy, Lowry (1992) and Rabe (1998), both present findings that contradict the claim that decentralization is most conducive to environmental policy innovation.

Examining state level environmental policy in the United States (US), Lowry (1992) found that states were more likely to innovate and implement more stringent standards in those areas of pollution control where the US federal government set minimum national standards. Absent federal standards, state governments had complete autonomy to innovate, but hesitated to do so, because of competitiveness concerns. Comparing American state governments and Canadian provincial governments for innovation in pollution control, Rabe (1998) found that, despite their greater autonomy, provincial governments engaged in very little innovation. In contrast American state governments, which are far more constrained by federal oversight, were much more likely to innovate in pollution control.

American research on natural resource management at the state or local level has found that maximizing autonomy at lower levels results in relatively worse results in environmental protection. Comparing the management of state and federal forests in the US, Koontz (2002) found that federal forests were managed with a view to environmental protection, while state forests prioritized timber yields.

In a similar vein, studies of local natural resource management and public participation have sounded a cautionary note. Layzer (2008) undertook a systematic comparison of four cases of collaborative local

ecosystem-based management with three cases using more conventional regulatory approaches. She found that none of the cases using collaborative approaches was 'likely to conserve or restore the landscapes they aim to protect' (Layzer 2008, 6). Furthermore, 'initiatives in which goals emerged out of conventional politics have yielded greater-than-expected environmental benefits ... [They] mitigated the disparity in power between development and environmental interests' (Layzer 2008, 5). In collaborative arrangements, the need to achieve consensus led to the avoidance of controversy and avoidance of imposing short run costs on interests favouring development. Examining several cases of public participation in local environmental decision making, Beierle and Cayford (2002, 62) concluded that the regulatory context was an important determinant of success: 'public participation – even when done well – is not a substitute for the regulatory power, political will and money required to get things done.'

THE RETURN OF HIERARCHY IN GOVERNANCE

More recently the role of government authority and hierarchy in governance arrangements has received renewed scrutiny. Examining new environmental policy instruments in nine European countries, Jordan et al (2005) found few cases of true 'governance,' without any government authority. Most new policy instruments relied upon at least some state involvement (Jordan et al. 2005, 477). Government authority and hierarchy may provide benefits which negotiation-based network governance does not. Effective policy in many spheres may depend upon *the shadow of hierarchy*. The shadow of hierarchy can be the background presence of government authority in arrangements for industry self-regulation that are motivated by the credible threat of government regulation (Héritier and Eckert 2008, 117). These are examples of policy and governance where government appears to play a limited role. However, in these cases the presence, albeit limited, of government authority appears to be a key determinant of efficacy. Thus there is a difference in kind, not just degree, between governance with little direct government involvement and governance entirely lacking in government authority or hierarchy.

Hooghe and Marks (2003) are correct in their assertion that command and control by central authorities has few advocates at present. However they may be too quick to jettison government authority and hierarchy as a whole. A more nuanced representation of hierarchy is possible: negotiation versus hierarchy may represent a false dichotomy. Fritz Scharpf (1997) surveyed a variety of possible governance arrangements

for policy making, including the hierarchical direction of decisions and negotiation in networks. Scharpf (1997, 197) made the distinction between 'hierarchical authority structure and the *actual use* of hierarchical direction, in order to override the decision preferences of other actors ... Within a hierarchical authority structure, therefore, it is indeed possible that actual interactions will have the character of negotiations or of unilateral action.' Thus, in a hierarchical structure, actual decisions may be made by negotiation, most of the time. The possibility of hierarchical decision making (imposition) remains an option, kept in reserve. However, Scharpf noted that the reverse is not true: a hierarchy free network system of governance cannot generate majority voting or hierarchical decision making.

THE EMPIRICAL MATERIAL: CLIMATE POLICY AND WATER POLICY

To broaden the basis of comparison, the book compares multilevel environmental governance in several federal systems. Our principal cases are the European Union, Canada and the US. For some policies we have additional case material from Germany and Australia. Our ability to make generalizations about these systems is strengthened by focusing the discussion on two key areas of environmental policy: climate policy and water policy.

Based on first principles, we would assume that governments would treat climate issues differently from water issues. The globe shares a single climate: thus solving climate change necessitates cooperation. Much of the international relations literature assumes that the problems of coordination and cooperation increase with the number of governments involved. Thus if we proceed from an economist's rational actor model, we would not expect much climate action at the subnational and local levels of government. The costs of coordinating such a large number of governments are high and opportunities for free riding or cheating are substantial. Furthermore, the question of 'leakage' is very important in adopting climate change policies: policies to reduce emissions in one place will be futile if economic activity (and attendant emissions) just shift elsewhere. Thus, achieving reductions through local level or state level policy is predicted to be more difficult than achieving reductions through national policy.

While water scarcity is a ubiquitous problem, encountered in many places around the world, it is not a global problem in the same way that climate is. Spain may learn from California about managing scarce water

resources. However, sustainably managing Spain's water resources does not require California's active participation or cooperation. Local, regional or national solutions to water policy are possible in a way they are not with climate change.

What the two policy areas have in common is a confrontation with the limits of natural systems, and the need to impose real constraints on human activity as a result. Mitigating climate change will require real reductions in greenhouse gas (GHG) emissions. Similarly, managing water resources often requires real cuts in water consumption, or tough decisions over reallocating water between users. A common strategy for avoiding hard choices in politics in general is to make the pie bigger. For example, conflict over distribution of wealth can be diffused through economic growth that makes everyone's share bigger, even if relative shares don't change. Growing the total pie is not a long-term option in climate or water policy however. Global GHG emissions need to be capped, then reduced. Similarly, in many cases, the water supply 'pie' is shrinking in relative terms, because of population growth and reduced supplies as a result of climate change. Thus, while the geographic scale of climate change mitigation and water management are different, the need to confront a hard natural limit is the same.

Some of the claims of MLG theory can be tested. If we take a snapshot today, what most accurately describes environmental governance in federal systems such as the EU and US? Are they top-down, bottom-up or something else entirely? Examining these systems, do we observe, over time, that hierarchies are weakening, that authority is fragmenting? Where we observe variation in governance structure across federal systems, what can we learn about structures and policy effectiveness? These are the sorts of questions which the essays in this volume attempt to address.

The contribution by Daniel J. Fiorino surveys comparative research on relationships between institutional structures and environmental outcomes. He argues that there is no simple correspondence between particular institutional arrangements and positive environmental outcomes. His chapter also reflects on federal/state interactions around environmental governance in the United States over the last forty years to draw some conclusions about the significance of multilevel governance for policy outcomes.

Taking up the theme of the optimal governance scale for environmental policy, David Benson and Andrew Jordan examine how the European Union sought to address the question of assigning jurisdictional responsibility in water quality policy. After 1987, the European Union turned to the principle of subsidiarity to resolve these conflicts. The chapter

explores how the subsidiarity principle came to be applied and its consequences for the trajectory of the EU's environmental policy.

Turning to water supply, Timothy Heinmiller's chapter compares irrigation policy reforms at the subnational level in Canada, Australia and the US. All systems have seen a shift away from promotion and expansion of irrigation towards more conservation-focused water policies. Given the federal nature of these countries, the transition has taken place within multilevel institutions, which have significantly shaped the design and extent of sustainability reforms. Alberta, New South Wales and California are compared to illustrate how the different institutions in each federation have facilitated or impeded the general transition from expansionary to sustainability approaches in managing water for irrigation.

Inger Weibust's chapter compares the institutional arrangements for allocating the waters of transboundary rivers in the United States, Canada and the European Union. These regimes vary significantly in terms of the autonomy that lower level governments have in allocating water and their recourse to authoritative dispute resolution. They also show variation on policy outcomes, such as guaranteeing minimum stream flows for ecological purposes.

Turning to climate change, Kristine Kern's chapter examines the role that cities are playing in the multilevel governance of climate within the European Union. Kern describes how cities are implementing and shaping European climate policy. Kern identifies three distinct types of climate policy Europeanization at the urban level: 'hierarchical Europeanization,' 'cooperative Europeanization,' and 'horizontal Europeanization,' and considers their significance for climate policy.

Barry G. Rabe's chapter explores the ways in which complex interactions between different levels of government have shaped the US response to climate change. He suggests a fourfold typology of state/federal interactions, arguing that over time there has been movement from a 'symbolic policy 1975–1997' (low state and federal involvement), to 'state domination 1998–2007' (with high state and low federal involvement) and then to 'contested federalism 2008–2013'. And he asks whether the coming decade may see a shift towards the final category of 'federal domination' (with high federal and low state involvement).

David Gordon and Douglas Macdonald seek to explain the puzzle of why Australia was successful in crafting a national climate change policy, while Canada has not been. The two countries have comparable greenhouse gas emissions profile, economic structure and political institutions. Both are relatively decentralized federal systems. Gordon and Macdonald attribute

the difference in outcome at least in part to differences in the institutions of intergovernmental relations within each of the two countries.

Douglas Macdonald examines efforts by Germany, the European Union, and Canada to allocate cuts in greenhouse gas emissions. A basic challenge facing climate change mitigation policy makers is deciding which sources will reduce greenhouse gas emissions by what portion of the total reduction target. In a unitary state, policy makers do this by negotiating with sources. At the global level, although the same need to allocate amongst sources exists, the focus is upon allocation amongst states. In federated systems, however, particularly when sources are geographically concentrated and important to local economies, there is necessarily a simultaneous focus upon both allocation amongst sources and amongst the subnational governments in the federation. Two federated systems, Germany and the EU, have achieved success in reaching agreement on allocation of total GHG reduction cost amongst sources and jurisdictions. Canada has not. Macdonald explains the varying success of these efforts with reference to institutions, the hierarchical relationships among them, and the motivations of the governments involved in each case.

Marc J. Pallemmaerts discusses the mechanisms at the European Union's disposal for enforcing EU environmental law. Since the early 1970s, the EU has developed an impressive body of environmental legislation that prevails over the national laws of its Member States. Yet it is well known that the effectiveness and enforcement of this legislation continue to pose major problems in all Member States as well as, paradoxically, at the level of the EU institutions themselves. The European Community Treaty provides for both centralized and decentralized enforcement mechanisms, with a key role for the European Commission, the European Court of Justice, and the national courts of the Member States. Citizens and civil society organizations, too, have a role to play in enforcing EU environmental law, a role which was actively encouraged by the Commission during the 1980s and 1990s, but seems to be more circumscribed recently.

The concluding chapter returns to the overarching questions posed at the beginning of this introduction, and discusses the chapters in light of those questions.

NOTES

1. See for example, (Selin and VanDeveer 2009) and (Winter 2006).
2. However one of the leading scholars of European environmental law considered that this principle had never been applied in decisions about what to regulate at the European Union level (Krämer, 1998, 73).

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