

Elinor Ostrom and
the Bloomington School
of Political Economy

*A Compendium of Key Statements,
Collaborations, and Reactions*



VOLUME 1: POLYCENTRICITY IN PUBLIC
ADMINISTRATION AND POLITICAL SCIENCE

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LEXINGTON BOOKS

A division of

ROWMAN & LITTLEFIELD PUBLISHERS, INC.

Lanham • Boulder • New York • Toronto • Plymouth, UK

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Introduction to the Four-Volume Compendium

Elinor (Lin) Ostrom was awarded the 2009 Nobel Memorial Prize in Economic Sciences for her research on “economic governance, especially the commons.” In her Nobel lecture, she placed this research within the broader subject of the “polycentric governance of complex economic systems” and generously extended credit to her many colleagues who had helped her investigate the ways in which human groups craft, implement, and adapt complex institutional arrangements in their practical efforts to address common problems and realize shared aspirations.

When Mitchell (1988) named this community of scholars the “Bloomington School” of political economy, he was referring to the physical location, on the Bloomington campus of Indiana University, of the Workshop in Political Theory and Policy Analysis that Vincent and Elinor Ostrom established in 1973 and that continues to this day, having been renamed in their honor shortly before their deaths in 2012. Four decades of students, faculty, visiting scholars, and other colleagues have participated in the many activities of this Ostrom Workshop.

Lin (as she insisted everyone should call her) spent her entire academic career at Indiana University, and we were fortunate to be able to work with her for many of those years. We offer this four-volume compendium as a guide for those interested in learning more about Lin Ostrom’s research, specifically how it fits into the broader context of the Bloomington School of political economy and related approaches to the analysis of institutions, broadly construed. Each volume collects published and unpublished papers on a broad theme needed to more fully contextualize the research for which she was awarded the Nobel, and to more fully convey the complexity of this still-evolving school of thought.

Basic Principles of the Bloomington School

The basic concern of this community of scholars has been to understand how fallible human beings can nonetheless achieve and sustain self-governance in the face of a complex and ever-changing social and physical world. In brief, we do so by working together and by remaining attuned to the consequences of past actions, and especially by learning from our own and from others' mistakes. By saying that humans are fallible, we acknowledge limitations on our own cognitive abilities, and admit that anyone can undertake actions that seem reasonable at the time but that can lead to disastrous consequences in the long term. Such tragedies become less likely when we engage others in respectful contestation, by truly listening to their concerns and remaining open to changing our own views in response to the arguments and evidence they contribute. Respectful contestation is critical if a society is to be self-governing, that is, if community members are to actively participate in the making and enforcing of the rules that shape their own collective behavior (V. Ostrom 1991, [1971] 2008a).

The term "institution" takes on a very broad meaning within the Bloomington School. By institutions are meant all the formal and informal means that groups of fallible individuals build and/or use to facilitate their joint activities (McGinnis 2011). Formal means include written laws, rules, and regulations, as well as organizations in which agents are assigned the responsibility to act on behalf of some larger group. Informal mechanisms include mental models, modes of understanding, values, norms, and shared strategies (E. Ostrom 2005). In this way, the Bloomington School has been deeply shaped by the influence of Alexis de Tocqueville, whose *Democracy in America* ([1835] 1969) remains the classic statement that culture and social practices provide the ultimate foundation of all political processes. In short, self-governance is feasible only if a sufficient number of the members of that society understand and enact the "habits of heart and mind" to which so much of that work is dedicated (V. Ostrom 1997). Bloomington School researchers are trained to carefully consider all of these potential factors whenever they are conducting a full-fledged institutional analysis.

This openness to the political, economic, social, and cultural factors of a given situation is demonstrated clearly in the problem-centered research that predominates among adherents of the Bloomington School. Powerful analytical tools are used to better understand practical policy dilemmas that diverse groups wrestle with in their own lives. As a consequence, scholars from this tradition are particularly open to learning from

the people most directly involved, rather than presuming that we, as policy experts, have some special hold over useful knowledge. In all of her many empirical projects, Lin Ostrom was particularly effective at balancing scientific rigor and policy relevance. This balance is a distinctive characteristic of the Bloomington School approach to the study of political economy, policy, and institutions.

Another dominant characteristic of the Bloomington School, and one that is particularly associated with the work of Lin Ostrom, is the creative use of multiple methods of analysis, even in a single research project. Among the analytical tools that Lin Ostrom and her many collaborators used on a regular basis are: formal models, statistics, case studies, field research, meta-analysis, lab experiments, simulations, remote sensing. Of course, no one person could be an expert in all of these methods, which is why Lin participated in so many different multidisciplinary research teams. Her collaborations routinely included faculty, students, visiting scholars, and practitioners, since Lin was always willing to work with anyone who could bring a fresh perspective to bear on whatever policy setting was under investigation. She also encouraged these research teams to revisit the sites of previous research projects in order to track the way a group's choices over time were related to changes in the nature of the problem they confronted (Poteete, Janssen, and Ostrom 2010).

The Ostroms encouraged all institutional analysts to fully embrace both the reality of institutional diversity and its normative desirability. As a species of organisms whose very survival has always depended on our ability to work together in groups, human societies have constructed a bountiful repertoire of institutional responses to critical challenges (E. Ostrom 1998). Lin's most influential research finding is the list of eight design principles she identified in *Governing the Commons* (1990) as being necessary if local communities are to manage resources critical to their survival over long periods of time. But there is more to this story of institutional diversity and self-governance, indeed, more than enough to fill the four volumes of this compendium.

Our Goals for the Compendium as a Whole

Lin's own writings, for obvious reasons, dominate these volumes, but so too does the work of Vincent Ostrom, her spouse and lifetime collaborator. Vincent was already an accomplished scholar in political science, public administration, and policy analysis when they first met and decided to

marry, early in Lin's graduate program. For obvious reasons, Vincent did not serve on her research committee, but together they pioneered the mode of research that defined the heart and soul of the Bloomington School.

Theirs was a remarkable partnership, with their respective skills and interests nicely complementing and completing each other. We consider it unfortunate that the Nobel committee did not recognize Vincent's significant contribution to the body of work for which they awarded Lin this high distinction, and these volumes are, to a great extent, our effort to correct this oversight.

In retrospect, it is understandable why a committee of economic scholars would have overlooked Vincent's contribution, because, unlike Lin, Vincent rarely followed the conventions of modern social science. His interests ranged widely, from detailed analyses of the implications of water law in the American West to philosophical musings on the foundational influence of language on human civilization. Our selections cannot do justice to the full range of his contributions, but that task has already been accomplished by our Workshop colleague Barbara Allen, who edited two volumes of his unpublished papers (V. Ostrom 2011, 2012) and prepared updated versions of his most influential books (V. Ostrom [1971] 2008a, [1973] 2008b).

Our compendium also includes examples of some of the most important collaborations of the Ostroms. Lin was especially prolific in her range of coauthors, more than two hundred in total, as befits her practice of drawing upon the unique skills of researchers trained in other disciplines and methods of research. Especially later in her career, she showed a remarkable ability to balance her contributions to multiple research programs operating simultaneously. Lin was a consummate social scientist, always sensitive to the need to define her terms carefully and to subject her expectations to empirical testing, which required careful attention to how these terms and all relevant factors could be measured. Throughout her career, she remained remarkably open to learning about new methods of analysis, an attitude that is most clearly demonstrated in her (appropriately) coauthored book entitled *Working Together* (Poteete, Janssen, and Ostrom 2010). Clearly, we cannot include examples from all of her collaborations, and we strongly encourage readers to pursue any of the other strands of research that the authors mention in the papers that we were able to include.

We have chosen to reach beyond the most accessible and already influential examples of their writings, to identify unpublished papers, lectures, or articles published in less prestigious outlets, in order to show how the Ostroms communicated their core ideas to different audiences. Lin, in par-

ticular, was a great communicator, always putting even the most complex analytical topics in familiar, human-sized contexts.

Our primary intention in preparing this compendium has been to provide readers initially exposed to the work of Lin Ostrom with a guide to help them begin to explore the broader contours of the Bloomington School of political economy. Each volume includes an introductory essay in which we draw out connections among the readings included in that volume. Thus, our coverage of these themes will be brief here. After stating the themes explored in each volume, the remainder of this introduction highlights what we consider to be the foundational principles upon which the core contributions of the Bloomington School to the study of political economy and policy analysis have been built.

A Brief Overview of the Four Volumes

Governing the Commons focuses on one particular mode of governance, namely, community-based governance of natural resources. Volume 1 sets this extended example within the broader context of the concept of polycentric governance, a system in which multiple forms of collective action are being undertaken simultaneously, each focused on a specific realm of authority, but with a considerable degree of overlap among the jurisdiction of these concurrently operating policy realms. Polycentricity is the concept that forms the core of the Bloomington School, and this volume includes the first major statement of this concept (a 1961 *American Political Science Review* article written by Vincent and two coauthors) as well as Elinor Ostrom's defining statement of the "polycentric governance of complex economic systems" in her Nobel address. Also included are overviews of their careers and elaborations of the implications of this concept for the fields of public administration, political economy, and political science.

"Polycentricity" is the word that Vincent Ostrom chose to encapsulate his vision of the complex interweaving among political, economic, legal, and social forms of order in human societies. In its initial incarnation, in Vincent's early collaboration with Charles Tiebout and Robert Warren (1961), this term was used in reference to the complexities of governance in metropolitan areas in the United States, where the typical situation was one in which multiple authorities with overlapping areas of responsibility interacted with each other in the absence of any single overarching final authority. At that time, and to a great extent even today, critics of urban politics called for consolidation of authority in hopes of clarifying lines of

accountability and achieving better levels of economic efficiency. Ostrom, Tiebout, and Warren instead articulated the reasons why a polycentric system of multiple centers of overlapping jurisdictions might actually make more sense in the metropolitan context. Later research, overseen primarily by Lin, demonstrated the reasonableness of this presumption in the specific context of police services (McGinnis 1999b).

Volume 1 explores the broader meaning that the Ostroms came to assign to this concept of polycentricity. In effect, they came to use this term as a label for the reasons why they were never able to fit comfortably within the confines of any single discipline. To understand governance in a polycentric system, it is not enough to understand only the legal or political institutions upon which legal scholars and political scientists concentrated. Instead, one also needed to investigate the way in which the economy was organized, and this required institutional analysts to look beyond the markets and firms upon which the discipline of economics was focused. Social structures and informal social practices also need to be considered, not only in and of themselves but especially for the ways in which patterns of human cognition and their interactions with others shape, in fundamental ways, processes of political, legal, and economic transactions.

A polycentric order nicely complements the strengths of markets (which can efficiently distribute information via voluntary exchange) and majority vote procedures (to make contentious social decisions, including regulating markets and providing oversight), because markets and votes are supplemented with social institutions and cultural practices that prove effective at instilling and reinforcing the skills necessary for individuals to fully participate in their own self-governance. In effect, polycentricity encompasses markets and democracy as components within a broader institutional context, and provides the social support needed for these processes to be both effective and sustainable.

The first volume illustrates how the Ostroms differentiated their approach to research from the confines of the disciplines of public administration, economics, public choice, and political science. They drew extensively from many fields of study, and their unique vision of polycentricity as the ultimate foundation of self-governing societies needs to be understood in contraposition to disciplinary boundaries.

Volume 2 focuses on the many institutional arrangements used by human societies for the purpose of managing natural resources critical to their survival. *Governing the Commons* details the conditions that make it possible for resource-dependent communities to effectively manage their shared resources through the institution of common property. But

there are other forms of property rights that can be equally effective, and this volume provides needed context on the relevant literatures on natural resources, property rights, and why institutional diversity is needed to realize this kind of success on a broader scale.

Governing the Commons is devoted to understanding one particular type of institutional arrangement (common property) when applied to a particular class of goods and services (common-pool resources). By focusing her attention on this one combination of a specific type of good and property institution, Lin was able to powerfully demonstrate the reality of an important alternative to the better-understood combinations of private property found in markets and public property as manifested in governments. Many variants of markets and states have long been known to scholars, especially those trained in the disciplines of economics and political science, respectively, but the absence of a discipline focused on common-property institutions had made it difficult for observers to realize just how important those institutions have been and continue to be.

But this analysis of common property as a means of managing common-pool resources was located within a broader understanding of the many available variants of property and resource types (Cole and Ostrom 2012). The second volume in this compendium explores this broader context of institutional diversity. One important theme is the ways in which understanding this broader context has enabled later researchers to expand upon the eight “design principles” that Lin highlighted as the central finding in *Governing the Commons*. These revisions (by Lin as well as other scholars) fine-tune the conditions she identified as being necessary for sustainability of those resources. These elaborations include revisions to her original list as well as generalization to a broader range of group behavior.

Volume 3 shows that researchers in the Bloomington School have much to say about policies that have little to do with natural resources per se. Although in the title of her Nobel Lecture Elinor Ostrom specifically points to “complex economic systems,” her analysis clearly demonstrates that the systems she was concerned with were by no means limited to just economies. Instead, she fully realized that polycentric systems interweave economic, political, legal, and social threads into a coherent whole. Terms like “policy systems” or “institutional complexes” might have been more appropriate, except for the fact that this particular prize was given for research in the economic sciences!

In *Governing the Commons*, Elinor Ostrom makes only a passing reference to the Institutional Analysis and Development (IAD) framework, but this research tool was critical in both the development of her research

program and in her interpretation of results (McGinnis 2011). Volume 3 includes papers that illustrate how this framework (and related analytical tools) has been applied to a wide range of policy topics. Of particular interest are papers in which Elinor Ostrom explains how this framework helped organize her own research, and thus how it might be more effectively used by other analysts. Topics include the study of police services in US cities, international development projects, and recent extensions to questions of intellectual property, health care, resource conflict, and the power of entrenched interests.

Volume 4 demonstrates that the reach of the Bloomington School extends to the study of social-ecological systems much larger than the cases of common-pool resources in *Governing the Commons*. Included are papers that explore implications for more effective policy responses to an especially critical problem confronting our shared future, namely, global processes of climate change. Lin made significant contributions to climate policy, specifically by encouraging more creative thinking about a wider range of polycentric policy responses. Her papers in this volume emphasize that climate change is a multifaceted problem that generates complex patterns of negative (as well as some potentially positive) externalities at all levels of aggregation, from the most local to the global level. As a consequence, policy responses need to come from all jurisdictional levels, and by implication by all of us individually working through the many types of organizations and communities to which we belong.

Ostrom's approach to climate change exemplifies her general perspective on our need to better understand how we, as fallible but creative individuals, working together in productive and destructive ways, shape our physical environment, and how changes in the environment affect how we act as individuals and the consequences of our actions in corporate entities. Here, as always, her focus was on improving our collective understanding of the innovative responses that communities have made, and continue to make, to practical problems and opportunities. Lin remained optimistic that we can solve difficult problems of collective action, but also realistic about the limits of any one type of institutional response.

Lin's interactions with a wide range of social, biological, and physical scientists led her to formulate what she called the SES framework, for application to social-ecological systems. This is a very ambitious endeavor, but then they rarely award Nobel prizes to anyone who thinks small or who spends their professional lives worrying about trivial problems!

Volume 4 reviews the origins and subsequent modifications to the SES framework, which remains very much a work in progress. This

framework is a natural line of elaboration upon themes that have always been central to the Bloomington School. If one combines an overriding concern with the role of institutions in human affairs with a long-standing focus on natural resources that groups share in common, it is quite natural to see this combination of human institutions and natural resources as constituting a system comprised of social-ecological or human-environmental interactions.

Relationship to Other Publications

We realize that even these four volumes are insufficient to cover all of the potential lines of development that spread from the core defined by *Governing the Commons*. We invite others to join us in our effort to more fully appreciate the contributions of the Ostroms to scholarship and to our collective self-understanding of ourselves as fallible yet creative citizens of self-governing societies.

We would like to highlight a few promising lines of future investigation that other researchers may consider pursuing. First, a dual intellectual biography of Vincent and Elinor Ostrom could critically evaluate the major influences on their work at all stages of their careers. Second, an institutional history of the Ostrom Workshop and the Bloomington School could locate them within the context of other major strands of institutionalisms from the disciplines of political science, economics, and sociology. Third, anyone contemplating establishing a research center to support new programs in multidisciplinary resource could benefit from more institutional histories of the interdisciplinary movements or institutes in which the Ostroms played leadership roles, notably the Public Choice Society, the International Association for the Study of the Commons (IASC), the International Forestry Resources and Institutions (IFRI) research program currently located at the University of Michigan, or the Center for the Study of Institutional Diversity that Lin helped establish at Arizona State University.

There also remain plenty of opportunities to apply the analytical tools of the Bloomington School to institutions and processes that have so far been relatively overlooked by scholars operating from within that tradition, such as nonprofit organizations, philanthropy, economic cooperatives, and religious movements. Meanwhile, as Lin often stressed, the basic methods used in this school require further development and increased rigor, perhaps through more systematic implementation of the techniques of social network analysis or systems design.

Other lines of development have already been pursued in detail elsewhere. Elinor Ostrom's *Understanding Institutional Diversity* (2005) deserves special attention, for its careful development of the technical foundations of her method of analysis for the study of rules and institutions more generally. Among her coauthored volumes, we highly recommend three. *Working Together*, coauthored with Amy Poteete and Marco Janssen (2010), uses the record of some of the many research teams in which Elinor Ostrom participated to investigate the strengths (and challenges) of multidisciplinary research, and in so doing states a powerful case in favor of this increasingly common mode of research. *Rules, Games, and Common-Pool Resources*, coauthored with Roy Gardner and James Walker (1994), with contributions from several of their students, is a unique combination of how formal mathematical models, laboratory experiments, and field research can be connected and combined in ways that deepen our understanding of the challenges of managing shared resources. Finally, *The Samaritan's Dilemma* (Gibson et al. 2005) provides an extended exposition of a Bloomington-style analysis of the potential strengths and weaknesses of international development assistance.

In a series of books, Vincent Ostrom developed his unique perspective on American governance (1991, [1971] 2008a), public administration ([1973] 2008b), and the foundations of social order (1997). The wide range of Vincent Ostrom's contributions to the Bloomington School have been covered in two volumes of previously unpublished papers (2011, 2012), and in papers written in his honor (Sproule-Jones, Allen, and Sabetti 2008; Sabetti, Allen, and Sproule-Jones 2009). Although now a bit dated, a 1988 textbook on *Local Government in the United States*, cowritten by Robert Bish and Elinor and Vincent Ostrom, is a clear statement of what polycentricity means in the American context.

In our selection process, we endeavored to not duplicate papers already included in other edited volumes, but some overlap was inevitable. We have included a few of Vincent's previously unpublished papers that Barbara Allen first published in her two-volume set, in part as a form of advertisement for her outstanding collection, which reminded us how much of the Bloomington School perspective was foreshadowed during the earliest stages of Vincent's long career. Our list shares only a few of the chapters from a shorter collection (Sabetti and Aligica 2014) of key statements by Vincent and/or Elinor Ostrom, focused on the epistemological foundations of the methods of research they used throughout their career. Aligica and Boettke (2009, 2011) and Aligica (2014) provide outstanding introductions to the social philosophy of the Bloomington School as a whole.

We were especially concerned about not duplicating many papers included in three earlier volumes of selections from the work of Bloomington School scholars, especially since those volumes were edited by one of us (McGinnis). The most commonly cited of these volumes (McGinnis 1999b) focused on the early Workshop research projects on police studies and metropolitan governance. The least-cited volume (McGinnis 2000) included examples of the diverse kinds of formal models that Bloomington School scholars have used to explore distinct research questions. McGinnis (1999a) was, in the editor's opinion, the least successful of the three, since it was intended to help contextualize *Governing the Commons* within a broader range of policy analyses. Looking back on it now, it is clear that more than a single volume was needed to accomplish that task.

Polycentricity and the Bloomington School

The Ostroms did not start out to build a new "school" of thought, but that is what, in the end, they did. This Bloomington School of political economy, or institutional analysis, includes scholars and practitioners shaped by their interactions with the Ostroms, either through direct personal contact, or through their writings, or through their contact with others more deeply affected by the Ostroms. We fall into this last category, as each of us was deeply influenced by their scholarship, their friendship, and by the examples they set for the proper life of a scholar and policy analyst.

For most of their careers, the Ostroms experienced considerable frustration at getting their point across. They had developed a clear vision of the way societies of fallible but creative individuals govern themselves, by coming together to form diverse kinds of informal groups, associations, and formal organizations. They do so because they share some interests in common, and need to work together in order to achieve those goals. These collective entities interact with each other in multiple ways, typically through the actions of individuals chosen to be the agents of that group or organization. These cross-organizational interactions may be cooperative or competitive in nature, and oftentimes both at the same time. Over time, a complex array of interconnected centers of authority is constructed and continues to evolve as circumstances change.

In collaboration with two colleagues, Vincent Ostrom borrowed the term "polycentric order" from Polyani (1951), but in the process dramatically changed the meaning of that term (Ostrom, Tiebout, and Warren 1961). Polyani envisioned a form of social order that emerged automati-

cally from the uncoordinated actions of individuals, but for the Ostroms and the rest of the Bloomington School, this order requires the continual active engagement of public entrepreneurs throughout that society (McGinnis 2005; Aligica 2014). It is this concept of polycentricity that forms the true heart of the Bloomington School, and its overriding purpose has been to better understand the nature of a polycentric political economy.

This vision does not fit into any of the standard categories of the academic structure in place then (or today). Each social science discipline (economics, political science, public administration, sociology, anthropology) is organized around a core set of themes, and precious few social scientists collaborate on research projects with experts in any of the natural, physical, or biological sciences. Since a polycentric order necessarily includes collective entities organized around specific problems that typically crossed not only conventional political boundaries but also the boundaries of any one scientific discipline, none of these disciplines could accept polycentricity as its core organizing concept.

Both Elinor and Vincent Ostrom received advanced degrees in political science, generally understood to consist primarily of the study of governments. But each realized, from early in their careers, that politics involves much more than just the behavior of public officials, and that governance is best understood as a set of *processes* through which groups of all kinds set and implement the rules that shape the ways they interact with each other. Governments play important roles in these governance processes, but no policy analysis could be complete while remaining within the confines of public organizations. In other words, government does not equal governance.

As they pursued their interests in learning how groups of people solve the practical problems they face in their everyday lives, the Ostroms developed the habit of seeking out and listening to anyone who had something useful to teach them, regardless of disciplinary lines. In so doing, they helped build new interdisciplinary communities. But even in this, they were challenged to mobilize enough colleagues to maintain a focus on the core questions of social order.

Throughout their long careers, the Ostroms never lost faith in the ability of individuals and groups to effectively manage their own affairs, given the right conditions. These conditions required that all participants share access to at least some of the same information and a willingness to freely discuss their concerns, and to listen respectfully to the concerns of their fellow participants. To some observers, Elinor Ostrom's Nobel Prize, occurring after the 2008 financial crisis widely attributed to runaway greed

on the part of financial institutions deemed “too big to fail,” had a decidedly positive spin. Her research had demonstrated that local communities around the world could solve the problem of the “tragedy of the commons” deemed by many experts to be insolvable, except by the intervention of government regulators or private property owners. This award sent a hopeful signal that solutions are possible, no matter how bleak things may appear.

The Ostroms genuinely respected ordinary people for the creativity they demonstrate in their everyday lives. When asked to comment on specific policy issues, they never responded with pat answers based on preconceived notions, but instead sought to elicit more details about the problem at hand. Although many policy analysts consider only certain kinds of institutional arrangements as legitimate solutions to policy problems, the Ostroms saw a world of ever-increasing institutional diversity. They fully embraced the complexity of the real world, and refused to fall victim to the temptations of ideological certainty.

Yet they also persevered in their search for the simplicity that lay at the heart of all this complexity. If relatively simple processes were not at work, then how could humans with necessarily limited cognitive abilities avoid being overwhelmed to the point of indecision and impotence? They insisted on digging more deeply to identify these deep structures of simplicity, which could then be used to build more effective coping strategies.

For Lin, this search for simplicity manifested itself in a lifelong obsession with frameworks as a precursor to the causal explanations, formal models, and statistical tests that constituted the gold standard of social science. She insisted that scholars from diverse disciplines first needed to build a common vocabulary of terms with shared meanings, before they could engage in productive cross-disciplinary research. Otherwise, they would continue to talk past each other, because if scientists trained in different disciplines assigned different meanings to the same term, then how could they arrive at a common understanding of the problem at hand? For a scholar of her stature, it was remarkable how much time and effort she devoted to building and fine-tuning general analytical frameworks.

For Vincent, the simplicity he sought was inspired by Hobbes’s presumption that since all humans share a “similitude of thoughts and passions,” we all have the potential of truly understanding and appreciating each other’s points of view. However, Vincent vehemently dissented from Hobbes’s pessimistic conclusion that any such common viewpoint would be powerless to guide human behavior, which instead was dominated by fear. For Hobbes, the only order was one in which someone, some levia-

than, was ultimately in charge—Vincent Ostrom embraced the more polycentric notion of overlapping centers of authority that was built into the very fabric of American political life by the designers of the US Constitution. If ambition could be countered by the ambition of others, in the context of shared foundational norms and social expectations, then a complex and resilient social order could be constructed and maintained, but only if each generation of citizens in their turn learned the “art and science of association” that Tocqueville so famously identified as the foundation of a new science for a new age.

The core concept of polycentricity is, at heart, a simple concept, but it is manifested in often bewildering complexity. Better to see polycentricity as a never-ending process of learning and adaptation to changing conditions, driven by respectful contestation among individuals and groups pursuing their shared and conflicting interests in endlessly shifting configurations of competition and collaboration. The simplicity lies in the ability of fallible but creative individuals to learn from each other and to work together for their mutual benefit. It is not as simple as those who see market exchange as the core principle of social order, but too much simplicity can also create problems. There is much more to this world than markets or states.

A useful comparison can be drawn to the profoundly influential work of Herbert Simon, who in 1978 became the first PhD in political science to win the Nobel Prize in Economic Sciences. (Lin was the second.) For Simon, humans are best understood as boundedly rational information processors, who, if placed in the context of well-designed organizations that provide them with the information needed for them to make good decisions, can manage to effectively cope with situations of great complexity, even though the individuals are themselves capable of only relatively simple decisional tasks (Simon 1996). The Ostroms were deeply influenced by Simon’s (1955) concept of bounded rationality, but they also insisted on the intrinsic creativity of human minds, and their remarkable ability to work together in innovative ways to accomplish seemingly impossible tasks. Both perspectives use simple premises to construct explanations of how human societies can cope with complexity, but the Ostroms’ approach includes a dose of open-ended creativity missing in Simon’s perspective.

For the Ostroms, policy analysts can learn a great deal from observing how human communities solve practical problems. As a consequence, they encouraged their students and colleagues to select research questions that focused on problem solving and not on making distinctions between arcane points of purely academic significance. Throughout their careers, the Ostroms, and Lin in particular, sought to balance scientific rigor and

policy relevance. Their focus on problem-focused research led them to be open to learning new methods of analysis, and to work with scholars or practitioners of any stripe, to seek out anyone who might have something productive to add to the team.

Among the problems studied in depth by scholars of the Bloomington School during its first four decades of operation are groundwater depletion, the organization of police forces in metropolitan areas in the United States, international development assistance, forestry management, democratization, intellectual property rights, health care reform, the sustainability of fisheries and irrigation systems, and global climate change. At first glance, this list of topics examined by scholars affiliated with the Ostrom Workshop seems to include topics with absolutely no logical connection to others on the list. Yet this impression of topical incoherence is seriously misleading. For these volumes, we have selected readings that demonstrate the fundamental continuity of perspective that unites all these seemingly unrelated topics. In many instances, the initial chapter of a section presages by several years or even decades the mode of analysis applied or the conclusions substantiated in research projects described in later chapters in that same section. It's not that they weren't learning anything new—they were doing so all the time—but the same core values remained to guide their selection of topics and the interpretation of possibilities.

It is revealing that Ostrom, Tiebout, and Warren defined the Bloomington School's core concept of polycentricity in a 1961 journal article, more than ten years before the initial establishment of the Ostrom Workshop in Bloomington. One of Vincent Ostrom's earliest publications (1953), although entirely descriptive on the surface, outlined the basic structure of the mode of analysis that was only some twenty years later captured in the IAD framework (McGinnis 1999a, 7–8). We will have occasion to note similar instances of conceptual continuity throughout the introductions to each volume of this compendium.

This high level of conceptual continuity might lead skeptics to express concern that this approach may be lacking in scientific rigor, but a more accurate interpretation would be to admit that these same fundamental principles have been shown to bear at least some relevance to a surprisingly wide range of policy problems. Or perhaps the IAD and SES frameworks, which were crafted to facilitate mutual understanding among scholars from diverse disciplines, encompass too much while not offering scholars sufficiently precise instructions for its implementation. Indeed, too often we have seen newcomers to this approach expect too much. Anyone who sees the IAD framework as a method as clearly defined and

demarcated as the interpretation of statistical regression is sure to be disappointed. These frameworks offer only a starting point for analysis, and each analyst has to make many decisions along the way in any effort to put this framework to use.

The Ostroms were also quite reluctant to use their research to support any particular position in partisan debates. “No panaceas” was Lin’s frequent response to anyone seeking advice on a specific policy problem. Although useful as a summary statement of their underlying attitude, this orientation grossly limited their potential impact on the policy community, which consists of people and organizations endlessly in search of answers.

Their own politics were impossible to pigeonhole in any standard ideological position, except for a long-standing commitment to academic freedom (see V. Ostrom 2011). Unfortunately, their reluctance to use their research findings for partisan political purposes has not prevented others from doing so on their own. Their ambiguity on most political controversies of the day has made it easy for ideologues of various stripes to claim Lin or Vincent as one of their own. Such claims are always misleading. For example, some commentators have sought to use *Governing the Commons* as the basis for advocating a general transformation of society into a communal utopia in which all resources are shared equally. But there is nothing utopian about polycentricity, which is about as messy a process as you can imagine.

The single most important contribution made by the Ostroms was their demonstration of the remarkable ability of local communities to creatively craft solutions to practical problems. They never claimed that this capacity was limitless, and yet the most common line of attack was to say that they were too optimistic about the ability of ordinary citizens to govern themselves in the technically complex societies in which we all now live. This may be a fair criticism, and yet some degree of optimism is required to accomplish difficult tasks. Perhaps they were merely overreacting against dominant themes of powerlessness in the scientific and policy communities—after all, unremitting pessimism seems a lousy way to run either a society or a scientific discipline.

Prominent among the factors the Ostroms supposedly ignored is the importance of power. Political scientists routinely define their field with Lasswell’s question of “who gets what, when, and how?” This reflects an understanding of power that is very much at odds from those working within the Bloomington School. Lasswell’s phrase presumes that politics is all about competition for domination over others and the resources they control, or more subtly, over the forces that influence what other actors

think they want to achieve. But for the Ostroms, power *with* is more important than power *over*. They consider institutional arrangements not just as setting constraints on their ability to accomplish their goals, but also as means critical to the ends of resolving common problems or realizing shared aspirations. The “power with” view sees politics as primarily an exercise in collective problem solving, and does not allow politics to be reduced to brute struggles for domination.

Even so, it is fair to say that the topic of power has not been sufficiently explored within the Bloomington School. It seems to us that a strong case could be made that the IAD framework gives researchers tools needed to understand a wide array of forms of power, ranging from the direct application of coercion in operational-choice settings, to the manipulation of collective-choice processes, to more subtle forms of indoctrination through language, culture, and other aspects of constitutional choice. However, to follow this line of argument would take us far from Lin’s actual body of work.

Polycentricity also has a lot to say about power, although its implications on this subject remain incompletely articulated. Vincent wrote that for a political order to be polycentric, so too must the corresponding economic, legal, social, and scientific orders be polycentric. We would add that these do not constitute separate cases of polycentric orders, but should instead be seen as interrelated components of an aggregative order that could be seen as fully polycentric. Any one of these orders could be partially successful on its own, but they really take off when they mutually support and reinforce each other. For example, competitive markets in the absence of a stable currency are much less efficient in terms of transaction costs than ones in which buyers and sellers can rely on a secure medium of exchange. Clearly, then, a market’s level of efficiency is not totally independent of the level of public goods that the relevant political authorities are able to deliver.

Polycentric orders are radically dynamic, as new forms of collective action continue to emerge to address new problems as old ones are resolved, or vice versa. For any one actor to realize a fully dominating position over all others, that actor would need to monopolize the levers of power in all aspects of society, and find some way to prevent other forms of collective action from emerging to undermine the actor seeking a dominant position of ultimate power. Just having complete control over the political process would not be enough, you would also have to have total control over the economy and all social relations, including religion and familial relationships.

This totalitarian ideal has been approached in some cases, but never fully realized, because there is always some other competing authority elsewhere in the system, or outside the system, presuming that there remain external states or other actors with the capacity to use military force on their own behalf. Even if some decision centers gather unto themselves complete control over some aspect of the entire system, their efforts to further concentrate power in their own hands, will, in the end, be undermined by opposition from the remaining diversity of actors. Economic monopolies can be broken up by regulators, religious monopolies broken up by reformations and religious wars, and we can only hope that partisan gridlock may be overcome by the emergence of new political alignments.

This points to another shortcoming of the Bloomington School as it currently stands. Public entrepreneurship provides the dynamic driving force within an ever-evolving polycentric system of order, but entrepreneurship, per se, has not been a topic of a great deal of analysis from within this tradition. There are some exceptions, but the level of analytical effort thus far devoted to this topic is grossly disproportional to the pivotal role it plays in the dynamic logic of polycentricity. Much more work is required if we are to understand the institutional basis of effective leadership for collective action.

Vincent and Elinor Ostrom frequently ended lectures or written works with a call for a renewed attention to the way in which individual citizens in a democratic society learn about the political, economic, and social settings in which they live and work. Too often, what passes for civic education in the US educational system introduces students to the logic of the three branches of the national government and the many ways these officials control so many aspects of our collective lives. Too often, our political discourse is dominated by ideological diatribes against the efforts of opposing forces to influence these officials to make the wrong kind of decisions. The Ostroms, and the Bloomington School as a whole, hold out an alternative vision of self-governance by fallible but creative individuals actively engaged in respectful contestation with others on multiple topics of shared concern.

Some Final Thoughts

We conclude this introductory essay by revisiting two phrases: “economic governance, especially the commons,” which the Nobel committee chose to summarize the prize-worthy contributions of Ostrom, and “polycentric

governance of complex economic systems,” which she used as the title of her Nobel lecture to suggest the broader context within which she conducted the specific research projects the Nobel committee chose to honor. This four-volume compendium is an extended demonstration of our contention that the Bloomington School is much more than that, maybe more than either of the Ostroms themselves ever realized.

The Bloomington School of political economy provides researchers (and ordinary citizens) with conceptual frameworks and analytical tools needed to understand the full scope of “polycentric governance.” These tools have been most effectively developed and applied to “the commons,” especially commons in specific kinds of natural resources, but the commons should be understood as merely one particular combination of goods and property institutions, and these same tools are equally relevant for application to any realm of policy or other public concern. The implications of using these tools will vary widely in different contexts, but that is to be expected, given the undeniable reality of the institutional diversity that surrounds us, in all aspects of life. Polycentricity, as understood in the Bloomington School, manifests the endless striving by fallible but capable individuals as they work together in local groups, formal organizations, and as a global community to innovate, implement, and improve the institutional arrangements they can use to alleviate their common problems and better realize their shared aspirations.

These activities will be most productive when all participants are guided by a spirit of respectful contestation that transcends boundaries set by cultural divisions or professional expertise. We return one final time to *Governing the Commons*, which Lin dedicated to Vincent, for a lifetime of “love and contestation.” For both of them, respectful contestation is the foundation of self-governance, and it is a skill that needs to be instilled through civic education and reinforced by everyday political discourse. Needless to say, that is hardly the case today.

Elinor Ostrom was especially good at explaining the implications of the analytical tools and concepts of the Bloomington School to diverse audiences, and so it is quite natural that so many first became acquainted with this school through her work. Now that she and Vincent are no longer with us, all of us fortunate enough to have been associated with this “Bloomington School” share in the responsibility of making the most we can of their legacy. In the end, the example they set cannot be the property of any single “school” of thought, but is instead an inspiring realization of our common heritage and of our shared future, a future that each of us is helping to construct, every day of our lives.

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Introduction to Volume 1

Elinor (Lin) and Vincent Ostrom were intellectual entrepreneurs. They were driven by an insatiable curiosity about human affairs, always asking people about the institutional arrangements and practices in their own lives. They not only studied institutions, they also built them, specifically the kinds of intellectual infrastructure they needed to conduct serious inquiries into the problem-solving capacities of human groups. Neither was willing to restrict their interests to any single discipline, and they regularly chafed at the constraints inherent in the disciplinary structure of academia. Their frustrations led to their establishment, in 1973, of the Workshop in Political Theory and Policy Analysis at Indiana University, an interdisciplinary center for research, teaching, and mentoring junior scholars that remains the institutional embodiment of their vision and of the Bloomington School of political economy.

In this volume, we have drawn primarily from the published and unpublished works of Elinor and Vincent Ostrom to tell the story of their intellectual entrepreneurship. Briefly, in Part I, we let the Ostroms speak for themselves in personal narratives highlighting the challenges they faced in their intellectual odyssey. Part II includes classic statements of their understanding of the concept of polycentricity and its implications for self-governance. The remainder of the volume deals with the problems they experienced in pursuing their studies of polycentricity in the interstices between established or emerging academic disciplines. Part III deals with the field of public administration, and the emerging tradition of public choice, with particular attention to Vincent Ostrom's challenges to the underlying premises of these fields of study and practice. Part IV turns to the discipline of political science, and shows how the professional concerns of Lin Ostrom, a political scientist who served as president of the American Political Science Association (APSA) and was awarded a Nobel

Prize in Economic Sciences, still somehow did not fit very well within the confines of political science as a discipline.

Part I is designed to ease the reader into the mind-set of Lin and Vincent Ostrom, the founders of the Bloomington School approach to the study of policy, institutions, and governance. At the prompting of her colleague Margaret Levi, Lin prepared the autobiographical reflections reported in chapter 1 in 2009, before she was awarded the Nobel. This autobiographical essay opens with brief comments on the petty slights she suffered in entering an academic community then almost totally dominated by males, but pays even more attention to professional challenges posed by her overriding interest in the multidisciplinary forms of research she thought was needed to truly understand policy problems.

Remarkably, she finds it necessary to defend the importance of the substantive topics on which she chose to focus much of her research, against critics in mainstream political science who questioned how much could be learned from the behavior of peasants or local communities. Lin also embraces complexity in the framework she developed in the course of conducting research projects involving colleagues from multiple disciplines, in the face of criticisms that by doing so she deflected attention from core theoretical questions in political or economic theory. In these choices, she was driven by her inherent curiosity about how ordinary people coped with their real-life problems, and by her amazement at the endless creativity demonstrated by peoples throughout the world.

In this chapter, Lin frequently refers to her early experiences as a junior faculty member directing a long-term and large-scale collaborative research project that began with a comparison between small- and larger-sized police departments in Indiana and other midwestern states and eventually entailed a survey of the organizational structures of metropolitan areas throughout the United States. (For more on this research program, see McGinnis 1999 and the works cited therein.) Even though the Nobel committee neglected to mention any of this research in its justification of her selection (Nobelprize.org 2009), Lin made a particular point to include findings from these police studies in her prize lecture (reprinted here as chapter 6). Although the Ostroms and the Bloomington School are most widely known for research on natural resources and environmental issues, this early project set the template for all its later successes. As was the case for later projects, students were intimately involved in all stages, from initial design to measurement strategy to analysis and interpretation.

Chapters 2 and 3 are interviews with the Ostroms from 2003. The interviewer, Paul Dragos Aligica, is a former student whose own work

(Aligica and Boettke 2009; Aligica 2014) has helped popularize the term “Bloomington School,” originally used by Mitchell (1988). Aligica’s questions prompt the Ostroms to weave together their intellectual vision and the practical challenges they overcame in realizing that vision. For example, in chapter 2, when asked to identify what he considers the most critical reason for their success, Vincent Ostrom points to their refusal to treat “the market” or “the state” as simple concepts, but to instead insist on understanding how economic, political, and social processes are interwoven together in complex ways. Vincent also explains the reasons why they named their interdisciplinary research and teaching center a “workshop,” in order to highlight the collaborative nature of the research process as an ongoing interaction between established scholars and their more junior apprentice scholars. (Readers interested in recent developments concerning the Ostrom Workshop are encouraged to visit its website at <http://www.indiana.edu/~workshop/>.)

In chapter 3, the interviewer presses Lin to explain why she devoted so much attention to resource commons rather than the private and public goods that have long dominated the concerns of most economists and political scientists. In response, she proclaims the continued importance of commons in today’s world, in sharp contrast to those who dismiss traditional forms of cooperation as exotic relics from a best forgotten past. After noting that biologists focus what might seem an inordinate amount of analysis on “the simplest possible organism in which the process under investigation occurs in a clarified, or even exaggerated, form” and “which can be studied more effectively using this organism than using another,” Lin identifies common-pool resources as her “organism” of choice for the concentrated study of broader issues of collective action and governance. She also asserts that institutional diversity is just as important for the world as a whole as is biodiversity. Given the overwhelming complexity of the real challenges that communities face, continued access to local forms of organization is a critical asset. The world is so complex that any policy intervention needs to be seen as an experiment that will need careful monitoring, because all interventions necessarily generate unintended consequences that in turn generate new problems to be resolved or open up new opportunities for collective improvement. As she so often emphasized: “there are no panaceas.”

Part II shifts gears to more explicitly professional explications of the Bloomington School approach. This part opens with the paradigmatic statement of the concept of polycentricity, a 1961 *American Political Science Review* article by Vincent Ostrom, Charles Tiebout, and Robert

Warren, and it closes with the version of Lin's Nobel lecture that appeared in print in a 2010 issue of *American Economic Review*. In between, we have placed a previously unpublished paper by Lin originally prepared as a lecture expressing the abstract vision of polycentric governance in terms that can be easily understood by a general audience.

Although written with specific reference to controversies over the organization of urban areas in the United States, chapter 4 introduces much of the conceptual apparatus of the Bloomington School, more than a decade before the physical establishment of the Ostrom Workshop in Bloomington, Indiana. After defining the "business" of local government as the selection and production of public goods and services, the authors proceed to investigate a long list of complications entailed by their public nature. Unlike private goods, which can be easily traded among individuals, most public goods cannot be easily "packaged" to prevent those not contributing to the cost of that good from enjoying its benefit. Drawing on Dewey's definition of a "public" as all those who are affected by certain transactions, the authors emphasize that this group need not correspond to the "political community," defined as those whose interests are taken into account in the determination of which public goods should be enjoyed by that public.

Also unlike private goods, the consumers of a public good are rarely the people directly responsible for determining the types and quality of goods or services that are worth obtaining. The authors explicitly distinguish this process of "provision" from the processes through which a public good or service is actually produced. This production may be carried out by public agencies, private firms, nonprofit organizations, or directly by members of a community. In practice, many public goods and services require a combination of efforts from different kinds of actors, acting either singly or in myriad forms of partnership. Since the scales of the units responsible for the production, provision, and consumption of a public good or service need not correspond to each other, this opens up a wide array of possible configurations of cooperation among these types of units.

Furthermore, members of any vibrant community will need to have at their disposal a wide array of goods and services, both private and public in nature. This variety leads directly to the authors' expectation that most metropolitan areas will be characterized by complex systems in which different public authorities assigned specific tasks and organized at varying scales will interact in diverse ways, a system through which these "centers" of collective action pursue their overlapping interests and responsibilities.

This is their vision of a polycentric order, an irreducibly complex network of institutional arrangements among diverse forms of collec-

tive action occurring at multiple levels of aggregation, a reality that urban reformers still routinely criticize as unworkable and inefficient. The authors draw upon contemporary examples, especially the Lakewood Plan in Southern California, to illustrate that some complexity can indeed be successfully managed. In later works, Vincent Ostrom further refined this concept, based on his intuition that polycentric systems can, in some settings, prove to be more normatively desirable than the more centralized systems preferred by most policy analysts and political reformers. A polycentric system is rife with redundancies, but it is this very complexity that enables the people living in and managing a polycentric order to learn from their past mistakes and to provide sufficient opportunities for new policy experiments to be undertaken and evaluated.

In chapter 5, Elinor Ostrom connects this theme to the concerns of ordinary citizens. She begins by critiquing the widespread “textbook” view of democratic process in which citizens do little more than vote for representatives who then write laws and appoint bureaucrats to actually deliver services to citizens who may be passive recipients of government largesse. It is a neat view, one that still appears in many civics primers. But that is not the way a truly self-governing society really works, and Lin articulates an alternative view in which citizens are active coproducers of their own governance, by directly participating in all stages of the policy process, from problem definition through implementation and evaluation.

In an appendix to this chapter, Lin describes an example from Brazil where basic improvements in urban sanitation were stalled until the people themselves were encouraged to participate in constructing and maintaining a low-tech solution. Another example of coproduction, discussed in both this chapter and in the following one, draws on her analysis of irrigation systems in Nepal, in which decidedly low-tech structures built and maintained by local farmers often outperform concrete infrastructures built for them by development agencies.

However, as noted earlier, Lin never held out hope for universal panaceas, and so she carefully cautions against unrealistic expectations that even locally based solutions can produce quick or easy solutions to complex policy problems. As was the case for chapter 4’s evaluation of the opportunities facing public officials in metropolitan areas of the United States, it all comes down to a question of getting the scale right. To be effective, a polycentric system of governance has to facilitate efforts by public entrepreneurs to match up the scale of a collective-action dilemma to the scale of formal or informal modes of collaboration intended to

address that problem. If a system is going to become or remain fully polycentric, citizens need to develop and sharpen their skills at all forms of participatory governance.

Since chapter 5 was originally a speech to a group of development practitioners in Mexico in 1996, its informal tone was appropriate. Yet, this same welcoming informality of style survives even in chapter 6—the official published version of the lecture Elinor Ostrom gave on the occasion of being awarded the 2009 Nobel Memorial Prize in Economic Sciences. This long address encapsulates her entire career, nearly five decades of original research conducted by her and her many colleagues from the Bloomington School and beyond.

This address effectively locates Lin's most attention-getting research within the broader context of the Bloomington School approach to political economy, the general contours of which had been laid out in the 1961 article by Vincent and his coauthors. Frankly, we suspect the Nobel committee got more than they expected, since their own statement of why her research deserved this high level of recognition (Nobelprize.org 2009) does not even mention the core concept of polycentricity, which is clearly the most important thread connecting these two works, as demonstrated in the very title of Lin's address.

The Nobel selection committee highlighted her identification of the conditions that enable some local communities throughout the world to successfully manage resources critical to their own survival, without reliance either on "the state" or "market-based" arrangements that previous theorists had presumed were the only viable options. But the content of this lecture ranges much more widely, as this Nobel laureate shows how those particular findings emerged out of a much broader approach to research. Lin generously shares credit with her collaborators, and is, in effect, arguing that this prize should have been awarded to the Bloomington School as a whole. In that she is, of course, being too modest, but this lecture is a remarkable distillation of this entire school of thought. (Readers are encouraged to consult the Nobel Prize website for videos of Ostrom's speech as well as other supporting materials.)

The overriding theme of Lin's Nobel address is the need to look beyond states and markets if we are to fully appreciate the rich universe of institutional forms of collective action available for our use whenever new problems arise or new opportunities become available. The remainder of this volume explores implications of this attitude of openness to institutional diversity to specialists in the interrelated fields of public administration and political science.

Part III addresses the impact of the Bloomington School on public administration. Since bureaucratic officials receive very little attention in *Governing the Commons*, or in Lin's Nobel address, too many have drawn the inappropriate conclusion that community-level processes of governance can be, or even should be, complete unto themselves. But Lin was quick to insist that "small is beautiful" is a slogan she could not support, a panacea that is ultimately incomplete and destructive of self-governance rightly understood. Thus, we thought it appropriate to devote an entire section to the critical roles that need to be played by public administrators in the construction and continued operation of self-governance.

Our selection of readings in this part is dominated by the works of Vincent Ostrom, who was a major figure in this field before the Ostroms first moved to Bloomington, Indiana. We begin with chapter 7, a joint statement from 1971, in which they articulate their understanding of the then-emerging interdisciplinary field of public choice. After briefly listing other participants in this movement to improve communication between the disciplines of political science and economics, they summarize the central premises of what would later constitute the Bloomington School.

What the Ostroms meant by public choice in this article is much closer to polycentricity than it is to what later became the characteristic attitude associated with public choice theorists, namely, that public officials are just as selfish as any rational actor and that their self-serving machinations can be made to serve public purposes only when public organizations closely resemble markets, in which selfish behavior automatically generates social good, via the invisible-hand mechanism first identified by Adam Smith. Although competition among political agents plays a role in a polycentric order, it is by no means as dominant a theme as critics of the public choice approach presumed.

In a 1988 article, William Mitchell introduced the term "Bloomington School" of institutional analysis and contrasted it against the "Rochester School" of social choice (which focused almost exclusively on mathematical models of voting processes and electoral institutions) and the "Virginia School" of public choice (in which basic presumptions and analytical tools of neoclassical economic theory are used to explain the behavior of public officials). Within this latter school, particular approbation has been attached to the practice of rent-seeking by which legal and policy tools under the control of public officials are used to raise artificial barriers to free competition in order to reward favored private actors who seek the excessive "rents" they can reap from these protective barriers.

For the Ostroms, however, the market is but one institution among many, perfectly suited to some purposes but woefully inadequate for others. Since markets require supportive political, legal, and social contexts if they are to fully realize their potential, they were unwilling to assign it a uniquely meritorious role. Instead, they lay out a vision of self-governing societies in which communities of all types and sizes find creative ways to enjoy public goods and manage their shared resources, a world of ever-increasing institutional diversity. In this oft-cited *Public Administration Review* article, the Ostroms began a long process of justifying the benefits of a polycentric order, as well as acknowledging its limitations.

In chapters 8 through 10, Vincent Ostrom considers different aspects of the ways public administrators should approach their assigned tasks if they are to further the prospects for self-governance among the people whom they serve. In chapter 8, originally published in *Natural Resources Journal* in 1975, he uses the ongoing explosion of government involvement in environmental regulation and natural resource management as an excuse to examine the conditions under which top-down policy interventions are most likely to be effective.

This chapter summarizes many of the key points Vincent makes in his best-known book, *The Intellectual Crisis in American Public Administration* ([1973] 2008b). After briefly introducing such key concepts as the distinction between private and public goods, and the dangers of a tragedy of the commons, Vincent contrasts his understanding of democratic administration to the more traditional view that administration is primarily a technical task best kept isolated from direct political influences. Here, he stresses that public officials should not be dismissed as solely self-interested, but should instead be encouraged to play creative and entrepreneurial roles as they confront an endless changing landscape of social dilemmas, policy problems, and shared opportunities. Vincent thought public administrators should work with citizens rather than assert authority over them—an example of his insistence that politics should be seen as the realization of power *with* rather than power *over*.

In this chapter, Vincent acknowledges the critical importance of what he calls “intelligent planning” and the need for some kind of coordination if a polycentric system is to achieve its full potential. He lists the potential advantages of relying on bureaucratic forms of organization for the production or provision of some public goods, as well as their likely shortcomings. Elsewhere, Vincent Ostrom (1991, 1997) expressed deep concern about the serious dangers of overreliance on public officials, and especially of their capacity to do grave damage to societies whenever they

rely on their ideological blinders rather than careful analysis of particular situations. Indeed, Vincent was so effective in his depiction of the dangers of overweening authority that readers are likely to have overlooked his appreciation of the critical role of coordination and effective leadership in a polycentric system.

In chapter 9, a paper he wrote in 1988 but that did not appear in print until its inclusion in a 2011 volume edited by Barbara Allen, Vincent ranges widely in his explication of the responsibilities of public entrepreneurs in a polycentric setting, drawing on diverse points of view to exemplify his basic assertion that effective governance requires leaders to bring heterogamous inputs together in ways that let their respective strengths and weaknesses best complement each other. It is a far remove from the kind of technical exercise of administration advocated by Woodrow Wilson and other scholars of public administration. Despite expressing concern with the continued influence of such concepts as unity of power or span of control as being the primary concerns of public managers, he still insists that their role of helping select and deliver public goods and services remains critical for democratic governance.

Vincent's essay "Artisanship and Artifact," chapter 10 in this volume, remains his most innovative rendition of the nature of public entrepreneurship in a polycentric order. Here, he strives to convince policy analysts that all institutions are social creations, grounded in shared understandings. Just as an individual craftsman or artist must imagine a tool or artwork before he or she can bring that creation to life, communities of individuals cannot govern themselves without some shared set of beliefs and norms, some shared conceptualizations. Here, we see a reminder of why they named their interdisciplinary center a "workshop," since institutional analysts and designers were just as much artisans as they were scientists (see chapter 2 of this volume).

Vincent's argument in this essay goes further, because he insists that this entrepreneurial spirit should not be limited to official position holders, but that instead each citizen of a self-governing society needs to develop basic skills in the "art and science of association" (V. Ostrom 2006; see also Lin's argument in chapter 14 of this volume). To the fullest extent possible, all citizens should be active participants in the coproduction of public goods and the comanagement of community resources, as well as being well-informed voters and responsible consumers of private goods.

An essential part of Vincent's point about artisanship is that values necessarily play integral roles in all forms of political interaction. As a consequence, public entrepreneurship is more of an art than a science, and

so the methods that have proven so effective in the study of natural phenomena may not be as relevant for the study of political processes. With this statement, Vincent Ostrom embarked on a journey toward the redefinition of the profession of public administration, but this was a journey that few public administration scholars, and even fewer administrators, were willing to undertake.

In chapter 11, Mike McGinnis and Elinor Ostrom look back on Vincent's career from the vantage point of fifty years after his appointment as editor of *Public Administration Review*, long considered the premier journal in this field. The authors argue that the concept of polycentric order, introduced by Vincent and his colleagues in the 1961 article reprinted as chapter 4 of this volume, presaged by several decades the recent fixation of public administration scholars on the need for better coordination with nonpublic organizations, and with governance by networks rather than governance by hierarchical command. The authors revisit the example of the Lakewood Plan that played such a central role in that earlier article, and conclude that governance by cross-sector collaboration may not be quite as new as it is generally considered.

Vincent's view of polycentric governance was prescient, but contemporaneous scholars of public administration did not quite understand where he was trying to lead them. In a provocative interpretation of the founding of the US Constitution (Ostrom [1971] 2008a), Vincent argued that the founders' vision of governance went well beyond a separation of powers among executive, legislative, and judicial branches at the state and national levels to also encompass other types of organizations and social processes. It was only much later that both scholars and practitioners came to appreciate the extent to which the implementation of policy was dependent on public administrators' relationships with a complex array of non-governmental actors. The opportunities and challenges of implementing "networked governance" is now a major topic of concern in this discipline, but this is very much the same as the vision of polycentricity that Vincent offered several decades earlier. Unfortunately, this early statement in favor of network governance did not reach its potential impact, because that message was swamped by the close association of Vincent's work with a public choice movement that emphasized quite a different agenda.

Chapter 11 offers an answer to the puzzle of how Vincent Ostrom came to be so closely associated with the public choice approach to the study of public administration, even though his point of view was very much at variance with the arguments and conclusions of "mainstream" public choice scholars. The public choice movement has proven to be the

most sustained intellectual challenge to the Wilsonian orthodoxy of public administration as primarily a technocratic exercise, but Vincent Ostrom was never comfortable with its near-deification of market competition. Long ago, Adam Smith showed that an “invisible hand” guides markets to produce socially desirable efficiencies, even though none of the participants had this outcome in mind. Since public officials rarely face the same kinds of competitive pressures, they instead face many opportunities to take advantage of their ability to restrict the behavior of other actors, and to profit from those who would seek to enjoy benefits from artificial rents that protect them from competition. Public choice analysts see free markets as the ideal institutional form that all forms of public decision-making should attempt to mimic, and they routinely recommend reforms that bring the benefits of competition to all kinds of political interactions. Vincent acknowledged that competitive markets can be very effective for the production and exchange of private goods, but insisted that polycentric governance also required other kinds of institutions better suited for other kinds of goods and services.

The distinction between mainstream public choice and the Bloomington School is nicely illustrated by Vincent’s analysis of effective responses to the inherent shortcomings of bureaucratic forms of organization in chapter 8. Vincent considers responses internal to a specific organization as well as the nature of their external relations. Since tastes for a public good or service are likely to vary among the constituency served by any single public organization, he insists that the internal organizational structure be crafted so as to facilitate the expression of diverse participant interests. However, since no single organization can be expected to produce or provide all relevant public goods or services, each organization should specialize on particular goods or services, and these organizations must find some way to work together in a productive manner.

At this point, a mainstream public choice scholar would highlight the benefits of having multiple public organizations competing to deliver similar goods or services, in order to capture the efficiencies of market competition. Vincent does not deny that this is a relevant consideration, but he is much more concerned that the relevant organizations as a whole be structured so as to internalize the critical interdependencies in place among the public goods and services desired by all relevant groups. It is not so much a question of requiring political processes to mimic the market to ensure more efficient production of public goods, but instead in crafting a polycentric arrangement of public and private organizations at multiple scales that, in the aggregate, is appropriate for this interlocked system of goals.

In Part IV, we pivot to political science, and to Elinor Ostrom's place within that discipline. Although she served as the president of the APSA (McGinnis 1996), she tended to focus on subjects that were not of great interest to the majority of her political science colleagues. In chapter 12, one of us (McGinnis) considers a puzzle posed by a symposium on Lin's most influential book, published in *Perspectives on Politics* shortly after she was awarded the Nobel Prize (Isaac 2010). In that symposium, eight prominent political scientists, each specializing in a different sub-field, comment on this book and on Lin's work in general. Although each respects her work, each also concludes that Lin does not really address any of the central concerns or puzzles that dominate the areas of political science with which they are most familiar. As a consequence, Lin is, at the same time, both prominent and influential in the scholarly community writ large, and yet so marginalized in her disciplinary home.

In the two final chapters of this volume, we give Lin the last word. Both were originally presented as lectures, the former to her political scientist colleagues and the latter to a more general audience. In both lectures, Lin articulates her vision of how she and other specialists in the study of collective action could (and should) make an important contribution toward civic education of citizens in a self-governing democratic society. As scholars, we must accept the responsibility for making sure that our research and teaching activities do not undermine the capacity of ordinary citizens to find effective ways to resolve their own problems. Too often, we tend to presume that we, as experts, can advise communities on what they should do, and especially on how they might more effectively exert influence over the officeholders who supposedly control policy outcomes.

In chapter 13, Lin addresses her fellow political scientists, using the occasion of being awarded the APSA's James Madison Award to raise concerns about the dangers of internal factions based on methodological specializations, and the opportunities of redirecting this profession to realize the dual goals of increasing our scientific understanding of political processes and improving our collective capacity, as citizens of a democratic society, to govern ourselves. For the former goal, she advocates increased recognition of high-quality interdisciplinary research, which is too often so difficult to realize within universities and professional associations dominated by disciplinary silos. This goal also requires a downsizing of expectations that political scientists should seek the kinds of universal laws familiar from the physical sciences, because if institutional contexts do really matter for the determination of policy outcomes, then any valid

proposition in the policy sciences must specify the contextual constraints under which it remains valid.

In our final selection, chapter 14, Lin expands on a point she raised at the conclusion of her interview reprinted as chapter 3 in this volume. In this 2006 address to a Finnish audience, Lin identifies collective action as the single most important topic of the social sciences, and urges teachers at all levels to encourage their students to learn and to practice the Tocquevillian “art and science of association” that lies at the heart and soul of polycentricity.

In this lecture, Lin also addresses one of her most enduring concerns about the overwhelmingly negative consequences of a long-term movement toward consolidation of primary and secondary schools throughout the United States over the previous decades. Both Ostros were deeply influenced by Tocqueville’s contention that the ultimate foundation of democracy lies not in the details of political institutions but rather in the hearts and minds, and the personal experiences, of ordinary citizens. Schools were, and are, an important opportunity for new generations to learn the “art and science of association” needed to sustain self-governing societies. Such a dramatic reduction in the number of schools has surely made it much more difficult for students to directly experience the rewards and the challenges of participating in team sports or other kinds of extramural activities, as well as meaning that fewer parents will have the opportunity to serve on parent-teacher advisory boards.

The content of civic education also matters. When Elinor Ostrom was elected president of APSA, she organized a task force that she hoped would support fundamental changes in patterns of civic education at all levels of American education (Ostrom 1996). Not surprisingly, the reports generated by this task force show little if any effect of her distinctive vision of knowledge of the findings of collective-action theory as an essential foundation for democratic citizenship—the academic bureaucracy was just too resistant to transformation by any president-for-a-year (Leonard 1999; McCartney, Bennion, and Simpson 2013).

Although Lin never found the time to investigate these particular questions of education policy or reform in any detail, it was her conviction that a grave mistake was made when, in pursuit of greater economic efficiency, public officials closed down so many small schools that had given so many students, including herself, the opportunity to learn from their participation in clubs, sports, and other extramural activities. For Lin, it was her participation in a high school debating club that helped transform her from a stutterer into a very effective and personable lecturer. And those

of us associated with the Bloomington School of political economy could never have accomplished so much if she had chosen to meekly acquiesce to the disparaging advice she received when she first considered a career as a social scientist.

In chapter 1 of this volume, Lin reminisced about the difficulties she faced as a woman entering a distinctly unwelcoming professional environment, and the continuing battles she fought to pursue multidisciplinary research in a serious and sustainable way. We can only hope that the former problem has, for the most part, been resolved, but we must admit that multiple challenges continue to raise obstacles against the realization of multidisciplinary research programs, despite the rhetorical support given it by university administrators of all stripes. Clearly, the Ostroms left plenty of challenges unresolved, but they, along with their colleagues from the Ostrom Workshop and the Bloomington School more generally, have provided us with an inspiring example to follow, and powerful analytical tools we can use to wrestle with those challenges.

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