



## Elinor Ostrom (1933-2012)

*By Jayme Lemke*

### **I. Introduction**

Elinor Ostrom was a scholar, citizen, and academic entrepreneur of exceptional insight and determination. Her research on democratic self-governance strongly influenced the emerging sub-fields of public choice and institutional economics, established an important new framework for the analysis of common pool resources and collective action problems, and helped to build bridges between otherwise unconnected bodies of research. For these

contributions, Ostrom was awarded both the highest honor in political science and the highest honor in economics.<sup>1</sup>

Summing up her life's work in the conclusion to her Nobel Prize address, Ostrom wrote, "designing institutions to force (or nudge) entirely self-interested individuals to achieve better outcomes has been the major goal posited by policy analysts for governments to accomplish for much of the past half century. Extensive empirical research leads me to argue that instead, a core goal of public policy should be to facilitate the development of institutions that bring out the best in humans" (Ostrom, 2010a: 664-65).

Rather than seeing public policy as directly translating to outcomes, Ostrom recognizes institutions as the connective tissue that links policy with action. Every policy change occurs within a pre-existing institutional structure: a set of established rules-of-the-game that we all face when interacting with each other in politics, in markets, and within our families and communities. The term rules is used broadly here, to include also laws and norms, whether formally codified, passed along verbally, or tacitly understood within a community. Crawford and Ostrom (1995) remind us that institutions can also be productively thought of as including the shared strategies that emerge within those systems of rules.<sup>2</sup>

Regardless of preferred nomenclature, Ostrom's institutional focus directs our attention towards the way that political action and social change will influence an established institutional structure. Some institutions will encourage creativity, entrepreneurship, and trust, while other institutions will encourage inertia, predation, and suspicion. Ultimately, doing right by each other means getting the institutions right. Importantly, for Ostrom, this is not a matter of experts finding the ideal one-size-fits-all solution, but a project that involves all people actively engaging in design, experimentation, and ultimately discovery of better ways to live together within their own unique communities (Ostrom, 1998a).

---

1 Ostrom was awarded the Johan Skytte Prize in 1999 (<https://www.skytteprize.com/>) and the Nobel Prize in Economics in 2009 (<https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/facts/>).

2 For more on Ostrom's definition of institutions, see Ostrom (1986).

After an overview of Ostrom's education and career, I will summarize her contributions in two key areas: (1) local public goods, including the development of the theory of polycentricity through her early work on policing and water infrastructure, and (2) common pool resources, including the development of the concept's institutional design principles. It would take many volumes to fully cover Ostrom's research career, but these two branches of inquiry both run throughout her career and connect to many of the important theoretical contributions she made to the study of polycentricity, democratic self-governance, and institutional analysis. Then, I'll wrap up this short overview of a lengthy career by discussing the continuing impact of Ostrom's work for the study of social cooperation among free people.

## **II. Education and academic life**

Elinor Ostrom was born Elinor Claire Awan in Los Angeles in 1933. Her mother was a musician and her father was a set designer who would let her tag along to observe set construction on days she wasn't in school (Leonard, 2009). Despite the fact that her mother "saw no reason whatsoever" for her to attend college (Ostrom, quoted in Tarko, 2017: 4) and "there was no encouragement to think about anything other than teaching in high school or being pregnant and barefoot in the kitchen" (Ostrom, quoted in May and Summerfield, 2012: 26), Ostrom enrolled at UCLA. In 1954, she completed an undergraduate degree in political science.

After working as a personal assistant to put her first husband, Charles Scott, through law school, she eventually returned to UCLA as an employee in the Personnel Office. After taking a couple of seminars in public administration, she decided she liked graduate study and wanted to pursue a PhD (Ostrom, 2010b). Scott disapproved of this plan, and he and Ostrom divorced (Herzberg and Allen, 2012). Many in the political science department also opposed her admission to graduate study in political science on the grounds that funding women was likely to be a waste of resources if not downright harmful to the reputation of the department (Ostrom, 2010b: 3). Fortunately, Ostrom was undeterred and went on to successfully complete her PhD in political science in 1965.

It was during her time at UCLA that Ostrom began her research on local problem solving and common pool resources. Her interest in these questions began during a research assistantship with the Bureau of Government Research, where she got to know the faculty and students in the department and had the opportunity to discuss Vincent Ostrom's pathbreaking article (Ostrom, Tiebout, and Warren, 1961) on local government and the importance of its polycentric character (Ostrom, 2010b). Under Vincent Ostrom's direction, she began the research on the West Basin Water Association that would become her dissertation (Ostrom, 1965).

Although Elinor could no longer take Vincent's classes after they began dating—and shortly after married—her introduction to Vincent's work forged a lifelong personal and professional collaboration. After Elinor completed her dissertation, she and Vincent moved to Indiana University Bloomington and began the work that would become the backbone of the Workshop in Political Theory and Policy Analysis. The Workshop began as a weekly colloquium for faculty and students and grew over time as it added additional opportunities for students to work “as apprentices and journeymen” under the guidance of established faculty in an academic research environment (Indiana University, 2021).

The Workshop continues today and is a pre-eminent center for research in political theory and institutional analysis. Ostrom's first studies of urban policing—which asked the questions: Is centralization necessarily better? Or might there be something important about keeping public safety services local and tied to their community?—came out of a graduate seminar she taught in 1969-70 (Ostrom, 2010b: 7). This inquiry would take Ostrom and her research team around the country. Eventually, as Ostrom's study of self-governance came to focus on common pool resources like aquifers, forests, fish populations, and the environment, her research would take her team around the world in the quest to develop a better and universally relevant theory of democratic self-governance.

In 1990, Cambridge University Press published what is arguably Elinor's most important book, *Governing the Commons*. It was in this attempt to distill her decades of research into a set of generalizable lessons that she hit on the idea of a set of institutional design principles—not specific ideal practices, but regularities in the character of enduring problem-solving institutions and in the

processes through which those institutions were crafted. She describes being “quite uncertain as to whether the design principles would be looked upon as a crazy set of ideas or as a discovery” (Ostrom, 2010b: 16). A digital library of over 10,000 journal articles, book chapters, and conference and working papers—many of which use her institutional analysis and design principles to study particular institutional environments—testifies to the latter (Digital Library of the Commons, 2021).

Elinor Ostrom and Vincent Ostrom had a happy marriage and academic life until Elinor died of pancreatic cancer in June 2012. Vincent passed away only seventeen days later (IU News Room, 2012). The Workshop continues, but has since been renamed the Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis in honour of its esteemed founders.

### **III. Local public goods and polycentricity**

Goods and services are classified as “public goods” if they are nonrival and nonexcludable. “Nonrival” means that one person drawing on the good does not diminish how much will be left for the next person. “Nonexcludable” means that the nature of the good or service is such that once it is produced, it is very difficult to prevent specific individuals from enjoying the benefits that have been provided. For example, a fireworks display might be considered a public good. My watching the fireworks doesn’t diminish your ability to enjoy them, and it would be nearly impossible to prevent any particular person in the vicinity from watching if they wanted to. The provision of public goods is often considered inherently more complicated than the provision of private goods or club goods. This is due to the potential for free-riding—since non-contributors cannot be easily excluded—and the myriad other complications that emerge from the fact that all must share whatever is produced rather than being able to choose an individually tailored basket of goods as one can in a private market.

Public education and national defense are more commonly offered as examples of public goods, but the fireworks example is useful because it illustrates that the “public-ness” of a good is often geographically limited. Fireworks are a reasonable example of a public good if we think of the public being a neighbourhood. If we think of the “public” constituting the whole country, then fireworks don’t seem so public—setting off fireworks in Toronto may indeed

leave fewer for folks living in the Vancouver area, and a strategically placed fence could prevent people from outside the natural viewing area from being able to enjoy the show. Goods are not “public” to the entire world, but to the particular community that produces and shares them.

In other words, the nature of a good or service—whether it is public, private, or shares features of both—is a matter of *institutions*. The rules that govern ownership, access, and boundaries can completely change the relationship between a group of people and a particular good or service. One implication of the fact that public goods are institutionally contingent is that they may need to be organized differently according to the local institutions in effect in the community. Water rights, trash removal, education, public health services, and policing are all examples of goods or services that involve significant elements of “public-ness,” yet may need to be organized in very different ways from place to place because of the diversity of communities and contexts within which they are provided. As such, Ostrom thought of them as “local” public goods provided within diverse local public economies (Ostrom, 1998b).

Elinor Ostrom studied policing in order to better understand local public economies (Ostrom, Baugh, Gaurasci, Parks, and Whitaker, 1973; Ostrom, Parks, and Whitaker, 1973, 1978). Would it be better for a local public economy to integrate sub-units, becoming as large as possible in order to provide police services at lower cost? Or might that lower cost come at the expense of being able to actually satisfy the diverse constituencies seeking some type of policing or public safety service? This hypothesis was not plucked out of thin air, but rather emerged from the intersection of real world observation and a debate going on within the field of public administration at the time (Boettke, Lemke, and Palagashvili, 2016).

While theorists were debating the virtues of consolidating police departments in order to eliminate redundancies and bring what they hoped would be higher quality services at lower cost, Elinor Ostrom and her research team went out into cities across the United States in order to investigate the differences in performance between police departments that had consolidated, and police departments that remained independent within their community (Ostrom Baugh, Gaurasci, Parks, and Whitaker, 1973; Ostrom, Parks, and Whitaker, 1973, 1978). Their core finding was that the unconsolidated services

generated superior results in the eyes of the individuals living within those communities, which Ostrom argued should be the gold standard for evaluating a community service.

Polycentricity is an important related concept that both Vincent and Elinor developed (2010a). A polycentric system is one in which many overlapping or conjoining authorities interact within the same system of rules. These centers of authority compete, cooperate, and clash with each other over what to provide and how to provide it, generating in the process the diversity and the competitive dynamics necessary to enable the people living within the system to discover (and continually re-discover) how to best satisfy the ever-changing needs of their community. The police studies contributed to the development of this concept, as did most of the Ostroms' research before and after. In addition to helping Elinor Ostrom untangle some important mysteries around policing and local public economies, this polycentric approach would serve as a cornerstone for a career dedicated to understanding complex rule-ordered systems. She would go on to apply the concept to her work on common pool resources (Ostrom, 1990), knowledge commons (Hess and Ostrom, 2006), and even global climate change (Ostrom, 2010c, 2014).<sup>3</sup>

In her reflective essay “A Long Polycentric Journey,” Elinor wrote, “Ecologists and biologists long ago learned that they were studying complex phenomena composed of many parts at multiple levels and that their challenge was to unpack the complexity in order to understand it. Our challenge as social scientists is to harness knowledge about complex systems... and not simply to call for their simplification” (Ostrom, 2010b: 19). Developing a framework for the analysis of multiple co-existing and even overlapping systems of rules was a critically important step in the process of harnessing that knowledge.

#### **IV. Common pool resources and the institutional design principles**

The social puzzle most associated with Elinor Ostrom is the mystery of the well managed commons. Common pool resources are those—like oceans, forests, fish populations, and aquifers—that are difficult to exclude people from drawing down, but—unlike public goods—are rivalrous. In other words, when I take,

---

3 For more on Ostrom's polycentric approach to climate change, see Lemke and Lofthouse (2021).

there *is* less left for you. These present a theoretical dilemma in that individuals going about the business of their life can draw down the resource to the extent that its quality deteriorates, possibly even to the point of destruction of the entire resource system. This could be done knowingly, out of avarice or despair, or unknowingly, because there are simply not good signals to guide decisions about when it is time to seek alternatives.

As such, the resolution of conflict within common pool resource systems can be critically important for sustaining communities, industries, and natural resources. Elinor Ostrom observed in *Governing the Commons* (1990) that people around the world can and do resolve such dilemmas. These locally driven efforts to create and enforce mutually agreed upon rules are considered examples of *self-governance*, another concept of critical importance within the Ostroms' oeuvre. In addition to demonstrating the widespread universality of self-governance, Ostrom's research also shows that self-governance can be sustainable. Locally created and enforced governance systems have effectively operated across multiple generations, preserving communities and resource flows for hundreds of years in some cases.

As she did in her study of police services, Ostrom came to this conclusion by starting with a theoretical puzzle and then turning to empirical investigation--in this case, primarily field work and historical case studies. This approach enabled her to evaluate both whether her theoretical predications were true, and also *why* they were true. In other words, by learning from people actively involved in the process of resolving a common pool resource problem, we can gain deeper insight into which types of solutions are effective and which types of problem-solving processes are most likely to lead to effective resolution.

For example, one particularly interesting case study from *Governing the Commons* is that of the irrigation systems devised and implemented by farmers in the Spanish *huertas* (essentially irrigation districts) surrounding Valencia, Murcia, Orihuela, and Alicante throughout the Middle Ages (Ostrom, 1990: 62-82). Dry land and low rainfall made irrigation a seriously challenging problem that those living in the region needed to solve in order to survive. In her study, Ostrom found that the farmers drawing water from the canals in Valencia organized themselves into tribunals that met twice weekly in a public place in



order to administer a carefully prescribed turn-based system for drawing water from the canals. These tribunals developed an electoral system to determine leadership roles and responsibilities, including delegating inspectors to resolve disputes throughout the week and decide when to shut the system down for maintenance.

This turn-based system for drawing water from the canals, governed entirely by the farmers themselves, proved an effective management system for hundreds of years—for some communities, the system functioned for close to 1,000 years (Ostrom, 1990: 62). Part of the reason it was so effective is that without any particular knowledge of economics or politics, these farmers devised a system that was incentive compatible, encouraging cooperation and enabling farmers to easily monitor each other and administer appropriate punishment if needed. When the farmers created a turn-based irrigation system in which each person would open the gate to allow water into their fields immediately after their neighbor had done so, they ensured that neighbors would always be out and near the canal during irrigation time. Everybody was always under a watchful eye, and in turn paying careful attention to others. This practice discouraged over-use and brought cheating to light quickly, thereby preventing any one individual farmer from causing problems downstream by drawing too much water from the canal at the wrong time.

Despite the many similar success stories Ostrom relates throughout the volume, she is careful to remind us that there are many institutional mistakes made along the way as well. And we can learn as much from the mistakes as we can from the successes. She devotes chapters to situations of both success and failure, in both cases assuming “that the individuals tried to do as well as they could, given the constraints of the situation” in order to understand how the efforts of these aspiring problem-solvers “can be used to advance theoretical understanding of a theory of self-organized collective action to complement the existing theories of externally organized collective action: the theory of the firm and the theory of the state” (Ostrom, 1990: 57).

Ultimately, in the process of seeking out the regularities that seemed to make self-governance more likely to succeed, Ostrom wound up creating a tool known as the institutional analysis and design framework (McGinnis, 2011; Ostrom, 2005). Her focus on providing people with a tool that could be

used in the actual process of self-governance highlights the extent to which, for Ostrom, political economy was about helping communities be and do their best.

## **V. Enduring contributions to democratic self-governance**

Elinor Ostrom contributed path-breaking research on local public economics, polycentric systems, democratic self-governance, and institutional design. She did so by studying a great diversity of self-governance situations around the world, and by drawing on a wide range of disciplines and methods. Although she seems to have considered herself primarily a scholar and democratic citizen rather than affiliating with any particular political ideology, her scholarly approach and body of work do connect to the tradition of classical liberal thought in multiple ways.

First, Ostrom's research gives us good reason to be skeptical of one-size-fits-all solutions (Ostrom, 2007). The needs of communities are too diverse, and the knowledge and motivations of policymakers too uncertain, to justify taking decision-making authority away from those individuals who understand the problem best. Communities may find it necessary to contract out or to collaborate with larger governmental or nongovernmental entities in order to accomplish their objectives, but the onus for this has to come from the ground up in order to have any assurance that the decision is in the interest of the community.

Second, Elinor Ostrom's research on water governance, community policing, and the commons demonstrates that people have the creativity and the power to improve the institutions around them. Self-governance is possible. It can be difficult, and there are reasonable debates to be had about the extent to which individuals will want to undertake the investment required to build sustainable self-governing solutions. But individuals are not doomed to either isolated atomism or social control. This perspective connects Ostrom's research with the vision of classical liberal thinkers like F.A. Hayek (Boudreaux, 2014) and Thomas Sowell (1980) who emphasized the importance of tapping into local knowledge and the creative problem-solving power of individuals.

Third, Elinor Ostrom followed in the tradition of classical liberal political theorists like Alexis de Tocqueville who saw civil society and civic

engagement as uniquely important to the functioning of liberal democracies (Ostrom and Ostrom, 2004). Civil society facilitates conflict resolution and problem solving before matters rise to the level where government intervention might be suggested. A robust civil society can also serve the important function of enabling multiple communities to exist simultaneously, even when they might have conflicting values. There are times when a society may find it useful or even necessary to come to widespread agreement, but there is also great value to be had in creating space for individuals to pursue diverse projects and ways of living. This is true even—and perhaps especially—when those values conflict with those of their neighbours.

In studying processes of conflict, conflict resolution, and self-governance, Elinor Ostrom offers us ways to think about how a diverse, tolerant, cosmopolitan society might be possible. Further, she does so with the conviction that this vision must not be carried out *for* the people, but rather *by* free people voluntarily participating in processes of cooperation and self-restraint. Political economists have turned their attention in recent years to the important challenge of how to reconcile public administration with the importance of civil society and the need to enable the co-existence of many diverse forms of social cooperation (Boettke 2018, 2021; Aligica, Boettke, and Tarko 2019), but there is still much work to be done.

## References

Aligica, Paul Dragos, Peter J. Boettke, and Vlad Tarko (2019). *Public Governance and the Classical Liberal Perspective*. Oxford University Press.

Boettke, Peter J. (2018). Economics and Public Administration. *Southern Economic Journal* 84, 4: 938-959.

Boettke, Peter J. (2021). *The Struggle for a Better World*. Mercatus Center at George Mason University.

Boettke, Peter J., Jayme S. Lemke, and Liya Palagashvili (2016). Re-Evaluating Community Policing in a Polycentric System. *Journal of Institutional Economics* 12, 2: 305-25.

Boudreaux, Donald J. (2014). *The Essential Hayek*. The Fraser Institute.

Crawford, Sue E.S., and Elinor Ostrom (1995). A Grammar of Institutions. *The American Political Science Review* 89, 3: 582–600.

Digital Library of the Commons (Undated). Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis, Indiana University Bloomington. <<https://dlc.dlib.indiana.edu/dlc/>>, as of June 11, 2021.

Herzberg, Roberta, and Barbara Allen (2012). OBITUARY: Elinor Ostrom (1933–2012). *Public Choice* 153, 3/4: 263–68.

Hess, Charlotte, and Elinor Ostrom, eds. (2006). *Understanding Knowledge as a Commons: From Theory to Practice*. MIT Press.

Indiana University (2021). *History: Ostrom Workshop*. Indiana University Bloomington. <<https://ostromworkshop.indiana.edu/about/history/index.html>>, as of November 23, 2021.

IU News Room (2012, June 30). Distinguished Indiana University Scholar Vincent Ostrom Dies. News release. Indiana University. <<https://newsinfo.iu.edu/news-archive/22741.html>>, as of November 22, 2021.

Lemke, Jayme, and Jordan K. Lofthouse (2021). Environmental Policy from a Self-Governance Perspective. In Jayme Lemke and Vlad Tarko (eds.), *Elinor Ostrom and the Bloomington School: Building a New Approach to Policy and the Social Sciences* (Agenda Publishing).

Leonard, Mike (2009, December 6). Nobel Winner Elinor Ostrom Is a Gregarious Teacher Who Loves to Solve Problems. *Herald Times Online*.

<<https://web.archive.org/web/20150415173651/http://www.heraldtimesonline.com//stories/2009/12/06/news.qp-7916285.sto?code=d9341e1a-e395-11e4-a7e0-10604b9f2f2e>>, as of November 22, 2021.

May, Ann Mari, and Gale Summerfield (2012). Creating a Space Where Gender Matters: Elinor Ostrom (1933-2012) Talks with Ann Mari May and Gale Summerfield. *Feminist Economics* 18, 4: 25–37.

McGinnis, Michael D. (2011). An Introduction to IAD and the Language of the Ostrom Workshop: A Simple Guide to a Complex Framework. *Policy Studies Journal* 39, 1: 169–83.

Ostrom, Elinor (1965). *Public Entrepreneurship: A Case Study in Ground Water Basin Management*. University of California, Los Angeles.

Ostrom, Elinor (1986). An Agenda for the Study of Institutions. *Public Choice* 48, 1: 3–25.

Ostrom, Elinor (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press.

Ostrom, Elinor (1998a.) A Behavioral Approach to the Rational Choice Theory of Collective Action: Presidential Address, American Political Science Association, 1997. *American Political Science Review* 92, 1: 1-22.

Ostrom, Elinor (1998b). The Comparative Study of Public Economies. *The American Economist* 42, 1: 3–17.

Ostrom, Elinor (2005). *Understanding Institutional Diversity*. Princeton University Press.

Ostrom, Elinor (2007). A Diagnostic Approach for Going Beyond Panaceas. *Proceedings of the National Academy of Sciences* 104, 39: 15181–15187.

Ostrom, Elinor (2010a.) Beyond Markets and States: Polycentric Governance of Complex Economic Systems. *The American Economic Review* 100, 3: 641–72.

Ostrom, Elinor (2010b.) A Long Polycentric Journey. *Annual Review of Political Science* 13: 1-23.

Ostrom, Elinor (2010c.) Polycentric Systems for Coping with Collective Action and Global Environmental Change. *Global Environmental Change* 20, 4: 550–557.

Ostrom, Elinor (2014). A Polycentric Approach for Coping with Climate Change. *Annals of Economics and Finance* 15, 1: 97–134.

Ostrom, Elinor, William Baugh, Richard Gaurasci, Roger Parks, and Gordon Whitaker (1973). *Community Organization and the Provision of Police Services*. Sage Publications.

Ostrom, Elinor, Roger B. Parks, and Gordon P. Whitaker (1973). Do We Really Want to Consolidate Urban Police Forces? A Reappraisal of Some Old Assertions. *Public Administration Review* 33, 5: 423–432.

Ostrom, Elinor, Roger B. Parks, and Gordon P. Whitaker (1978). *Patterns of Metropolitan Policing*. Ballinger Pub. Company.

Ostrom, Elinor, and Vincent Ostrom (2004). The Quest for Meaning in Public Choice. *American Journal of Economics and Sociology* 63, 1: 105–147.

Ostrom, Vincent, Charles M. Tiebout, and Robert Warren (1961). The Organization of Government in Metropolitan Areas: A Theoretical Inquiry. *The American Political Science Review* 55, 4: 831–842.

Sowell, Thomas (1980). *Knowledge and Decisions*. Basic Books.

Tarko, Vlad (2017). *Elinor Ostrom: An Intellectual Biography*. Rowman & Littlefield International.

### **About the author**

Jayne Lemke is a Senior Research Fellow at the Mercatus Center at George Mason University and a Senior Fellow in the F.A. Hayek Program for Advanced Study in Philosophy, Politics, and Economics. Her Ph.D. in Economics is from George Mason University. In addition to her work on the evolution of women's economic rights and opportunities in United States history, Jayme has written on public choice and institutional theory as applied to policing, higher education, and other local public services.