

Elinor Ostrom: An uncommon woman for the commons

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On June 12, 2012, Elinor Awan Ostrom died of pancreatic cancer after an illness of about 6 months. Lin Ostrom, one of the few political scientists to win the Nobel Prize in Economic Sciences, showed that solutions to common resource problems worked out by individuals directly involved are often more successful and enduring than regimens imposed by central political authorities. Under specified conditions, common resources—forests, fisheries, oil fields, or grazing lands—can be managed successfully by the people who use them. She showed creatively and rigorously that participatory decision-making can work: as she said the day her Nobel Prize was announced, “What we have ignored is what citizens can do and the importance of real involvement of the people involved.” Ostrom’s pioneering work influenced and inspired researchers across many fields, and she has scores of disciples around the world, including innumerable young people who she touched with her work or personally. She loved to welcome visitors, but especially young scientists, into her Indiana workshop and made each one feel special.

Elinor Ostrom was born Elinor Awan on August 7, 1933, in Los Angeles, an only child. She was educated at the University of California at Los Angeles, completing her BA with honors in 1954. She then worked for a time before completing her MA in 1962 and her PhD in 1965. While at the University of California at Los Angeles, she met and married Vincent Ostrom, a distinguished political scientist who was 15 years her senior and who passed away little more than 2 weeks after Elinor. The Ostroms moved to Indiana in 1965 when he got a job in the political science department. Although Ostrom rarely mentioned the discrimination that she faced as a woman, she was not initially appointed to the faculty at Indiana University but hired only 1 year later, because, she later said, the department needed someone to teach a 7:30 AM class. In 1973, she and her husband founded the Workshop in Political Theory and Policy Analysis at Indiana University, an interdisciplinary institution that provided an intense but cooperative setting in which she developed her ideas and nurtured generations of younger colleagues and graduate students. She became a full professor in 1974 and, by the time of her death, was still active in teaching and



Elinor Ostrom.

research; she was a Distinguished Professor at Indiana University and the recipient of the University Medal as well as scores of other honors, including the Sveriges Riksbank Prize in Economic Sciences in Honor of Alfred Nobel. She is the only woman to have been awarded the Nobel Prize in Economic Sciences. She also somehow found the energy to become, just a few years before her death, the Founding Director of the Center for the Study of Institutional Diversity at Arizona State University, shuttling between Indiana and Arizona as needed to get the new institute off the ground.

Her Indiana colleague Michael McGinnis commented after her death that Ostrom donated her share of the \$1.4 million Nobel award money to the Workshop—the biggest, by far, of several academic prizes with monetary awards that the Ostroms had given to the center over the years. The couple had no children and few living relatives; all of Ostrom’s substantial parental instincts went into the nurturing of her students and younger colleagues. They, and the staff at the Workshop, were absolutely devoted to her. We have rarely seen an academic leader inspire such devotion. As Professor McGinnis commented, her family “was the group of people who worked around the Workshop. She was devoted to her students, to her colleagues, to her staff.”

Ostrom’s demonstration that small-scale farmers, herders, and fishermen could devise and maintain institutional solutions to commons problems challenges both adherents of *laissez faire* and proponents of state action by showing that institutions are essential to solve commons problems but that these institutions need not be imposed by the state. Indeed, her work is

relevant not only to local commons issues but any situation characterized by an absence of authoritative hierarchies to enforce rules. It is relevant to world politics as well as irrigation systems in Nepal. Ostrom showed, especially in her masterpiece *Governing the Commons: The Evolution of Institutions for Collective Action* (1), that, at vastly different scales, collective action problems can, under some conditions, be overcome without hierarchical government when participants provide their own institutions. However, these institutions must be supported by self-enforcing agreements and maintained through strategies that make the maintenance of such agreements consistent with the perceived self-interest of participants. Cooperation is maintained by the interaction of reciprocity, reputation, and trust and not by altruism. It follows that we live in “a world of possibility rather than of necessity. We are neither trapped in inexorable tragedies nor free of moral responsibility for creating and sustaining incentives that facilitate our own achievement of mutually productive outcomes” (2).

This insight led Ostrom to deep involvement with the application of game theoretic methods to problems of cooperation, and game theory grew in importance in her work after she and Vincent decided to spend a sabbatical with Reinhard Selten in Bielefeld in the early 1980s. The Ostroms remained close colleagues of Selten, and her work took on a new and deeply mathematical dimension. The way in which she shifted the terms of the institutional challenges was truly revolutionary but based on the most careful of methodologies. Indeed, in the last few years of her life, she was actively using geographic information system technologies to map land use changes. In these respects and others, she showed both continuing innovation and great intellectual courage.

Ostrom also became fascinated with the perspectives that could be gleaned from the study of complex adaptive systems more generally, which helped inform her emphasis on the need to take polycentric approaches. Polycentric governance had been pioneered by her husband Vincent,

Author contributions: K.J.A., R.O.K., and S.A.L. wrote the paper.

The authors declare no conflict of interest.

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and it referred to systems in which individual elements make decisions independently but within a framework in which mutual adjustments are possible. This perspective was a major component of Ostrom's research throughout her career beginning with her graduate studies, and in later years she wrote eloquently of the need to implement such approaches in dealing with global environmental problems, especially climate change. Ostrom was fearless about venturing into new methodologies and revealed in what she could learn from the very best people that she could find in one after another field. Organizations such as the Beijer Institute of Ecological Economics in Stockholm, of which she was a Fellow, and the Resilience Alliance, of which she was a member, provided her with the opportunity to work closely with ecologists, economists, and others from diverse perspectives who shared her enthusiasm for multidisciplinary mingling. Noteworthy also was her role as a cofounder of the International Association for the Study of Common Property, today called simply the International Association for the Study of the Commons, a highly interdisciplinary organization with membership, including social theorists, well beyond Ostrom's scientific colleagues. She was also deeply involved in sustainability research and served PNAS as a Member of the Editorial Board for Sustainability Science. Not surprisingly given Ostrom's broad reach and intellectual openness, she was better known outside the discipline of economics; indeed, her receipt of the Nobel Prize was a great surprise to many in economics who were unfamiliar with her contributions. Even her election to the National Academy in Section 64 (Human-Environment Science) was mainly because of the efforts of her appreciative colleagues in other disciplines.

The cowinner of the 2009 Nobel Prize, Professor Oliver Williamson of the Uni-

versity of California at Berkeley, said in a statement that Ostrom was "a great human being" and that "she had a wonderful sense of joy about the importance of her work that she successfully communicated to others" (3). Indeed, Ostrom was a great human being and one of the most egalitarian academics that we have ever known. She never had to display her brilliance—she was not interested in display or prestige and only in understanding important problems more deeply. She was especially welcoming and nurturing of young people, and she was a frequent and gracious hostess to those people who wanted to visit and learn from her. Indeed, she always made them, and all with whom she interacted, feel that she was grateful for the opportunity to learn from them. She was persuasive in communicating this view, because she truly believed it herself.

Ostrom went to extraordinary lengths to support less prestigious researchers and projects whose value she appreciated. In late 2010, the South Asian Network for Development and Environmental Economics (SANDEE) held its 10th anniversary meeting in Kathmandu, and Ostrom made the grueling trip to deliver a keynote speech. Duke economist Jeffrey Vincent wrote after Ostrom's death, "One of my favorite memories of Lin is her keynote at SANDEE's 10th anniversary meeting. Her willingness to travel to Nepal to give the keynote, after she had won the Nobel, was deeply appreciated by the SANDEE researchers. You could see their chests swelling with pride." She fulfilled such commitments and took on new ones until she could do so no more.

Despite her terminal illness, Elinor Ostrom was a dedicated scholar until the very end of her life. Indeed, on the day before she died, she sent e-mail messages to at least two different sets of coauthors about papers that she was writing with them. She was the Chief Scientific Advisor for the International Council for Science

(ICSU) Planet Under Pressure meeting in London in March, and Johan Rockstrom of the Stockholm Resilience Centre wrote that "Lin, up until the very end, was heavily involved in our preparations for the Nobel Laureate dialogues on global sustainability we will be hosting in Rio 17th and 18th of June during the UN Rio+20 Earth Summit. In the end, she decided she could not come in person, but was contributing sharp, enthusiastically charged, inputs, in the way only she could."

On the day that Elinor Ostrom died, Thomas Sterner of Gothenburg University wrote to a group of colleagues, including one of us:

Friends, I happened to visit Lin this last weekend. It was such an experience I must share it. I can testify that she remained the same wonderful old Lin right up to days of dying. I started by trying to inquire about her health but she brushed such questions aside: I will soon be out of here—now let's get down to the paper. And then she rattled ideas and citations from the last few months of literature that we ought to take into account and prodded us to think harder about how we formulated conclusions. After two hours I was both touched, worried about her and enthused for rewriting the paper. I worked some more on it and sent a new version at 1—and when I came at 8 next morning, she had new comments. Nuanced and critical questions and comments. This was a truly remarkable experience—and she even got herself engaged in the details of our review and the future financing of our joint program. . .

Elinor Ostrom was a profoundly important scholar, a great teacher and mentor, an energetic presence in any conversation, and a warm and generous person. She combined personal and scholarly virtues in a seamless and authentic way. We mourn her passing but celebrate her life and consider it a privilege to have known her.

1. Ostrom E (1990) *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge Univ Press, Cambridge, UK).

2. Ostrom E (1998) A behavioral approach to the rational choice theory of collective action. *Am Polit Sci Rev* 92: 1–22.

3. Callahan R (June 12, 2012) Elinor Ostrom Dead: Only Woman to Receive Nobel Prize for Economics Dies at 78. *Huffington Post*, Women.