Elinor Ostrom, Thomas Dietz, Nives Dolsak, Paul C. Stern, Susan Stonich, and Elke U. Weber, eds. 2002. The Drama of the Commons. Committee on the Human Dimensions of Global Change, National Research Council. Washington: National Academy Press.

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The ancients warned that that which belongs to all is cared for by none; what we call the tragedy of the commons may be coterminous with human society itself. The essential dynamic sounds simple: the interests of individuals sometimes do not align with those of groups to which they belong; if individuals pursue their interests unrestrained, they can undermine the well-being of the group. In particular, when people share a resource like a river or a fishery that is held in common, individuals can and often do overexploit it to the detriment of all. What is required, Garrett Hardin wrote in 1968, is "mutual coercion mutually agreed to"-that is, restraining institutions in some form. Yet the dark warning that individual interests destroy commons explains too much. For government itself is a public good, subject to a set of perverse incentives like a common-pool resource. How have humans managed to govern their communities for millennia and overcome the simple logic of selfishness?

The Drama of the Commons appraises studies of this question. The book is an ambitious collection of thirteen essays, written by scholars from political science, anthropology, psychology, decision analysis, economics, and law. In an age of information overload, one is tempted to read selectively, but this is one Hydra-headed work that deserves to be seen whole. What one perceives, standing back, is a notable assault on an age-old mystery of human societies. This body of research is rich and suggestive in its perceptions of and implications for public policy and governance, even though the editors admit that "knowledge has not progressed to a point at which managers can be offered detailed guidance" (p. 445).

In the aftermath of the Cold War and with the popularity of anti-government politics, a globalizing world has had little guidance on how to meet its public responsibilities beyond the incomplete nostrums of pop-capitalism. The answer of Bismarck, Stalin, and the New Deal-a powerful state acting on behalf of a modernist industrialism-is defeated or discredited. But in place of of-ten-myopic top-down rule, we have only general injunctions to provide legal rights and transparency so as to "get the incentives right," enabling individual actors to pursue economic growth.

It is possible that individual economic actors-a world of consumers and largely corporate producers-constitute the only public sphere that a globalized set of mass societies can have. The decline of social welfare and international development assistance, together with the rearguard defense of civil society and environmental quality by nongovernmental organizations of left and right, suggest that we cannot dismiss such a pessimistic reading.

The Drama of the Commons shows scholars at work on an alternative: the idea that seeking ways of governing shared resources and nurturing common
values is also part of human nature, side by side with the pursuit of individual interest. Such a search for governance can be a bottom-up or lateral process, in which learning and borrowing among communities can sometimes produce a more robust and enduring order. The important idea here is that this is a search, sometimes successful in its attempt to overcome the logic of selfishness. So far, this line of investigation has not produced a formula that reliably produces civil communities or that sustains the resources they depend upon. In this, the study of the commons lacks the clarity of microeconomics and its simplistic but compelling portrayal of self-interest as engine of coordination and change.

The conversation about how we go beyond self-interest is conducted in many of the dialects of the social sciences. The dialects are marvelous in their diversity. The comments below reflect one reader's parochialism faced with a cosmopolitan group of scholars.

The introductory and concluding chapters, written by teams led by Elinor Ostrom, supply perspective: definitions, a history of research in the past generation, judgments on questions to pursue and policy implications of what is known. The chapters are modest about the leading role that Ostrom herself has played in this field of study. If there is an indispensable prerequisite, to be read before reading the book under review, it is her influential Governing the Commons (1990).

Governing, and the body of scholarship it synthesized, aimed to counter Hardin's gloomy assertion that a commons is inevitably a situation in which "ruin is the destination toward which all men rush." A large body of case studies demonstrated that communal ownership could be sustained, in many cases, over generations or centuries. The current state of that scholarship is assessed by Arun Agrawal in a lucid chapter that includes a meta-analysis of significant factors internal to the workings of communities that seek to govern common-pool resources. Agrawal points out that there is little consensus as yet on the external variables that separate successful governance of common-pool resources from unsuccessful attempts. This is a theme carried forward in chapters by the anthropologist Bonnie McCay and development economists Pranab Bardhan and Jeff Dayton-Johnson.

Communities that govern commons well are mostly small in size. A recurrent question, accordingly, is how interactions across spatial or jurisdictional scales influence the capability of governing institutions. Two chapters by Oran Young and Fikret Berkes provide stimulating insights and surveys of sizable bodies of scholarship in international relations and the anthropological study of co-management arrangements. Both take up the question of how localized populations can be disrupted and also assisted by larger regimes, and both Young and Berkes point out limits in our current understanding of cross-scale interactions.

A major innovation in governing large-scale commons has been diffusing slowly over the past generation, the tradeable environmental permit. Two wellknown examples are tradeable quotas for fish harvest and air pollution permits. Invented by economists to advance effiency, tradeable permits seem also to join
governmental and economic arrangements together in a way that may be applicable to still-intractable problems like climate change. In a pair of thoughtprovoking chapters, Carol Rose and Tom Tietenberg assess what has been learned about these instruments and their limitations in governing commonpool resources.

I am unable to evaluate two interesting and clearly written chapters on the insights provided by experimental psychology and game theory. In Governing the Commons, Ostrom stressed the importance of game theory to governance. So it is striking that neither of the chapters in Drama of the Commons mentions the work of Robert Axelrod on the emergence of cooperative behavior within the unpromising confines of the Prisoner's Dilemma game.

Two speculative chapters, by Richerson, Boyd, and Paciotti on evolutionary models of human institutions and by James Wilson on large-scale commons as complex adaptive systems, complete this noteworthy book. Both essays are provocative, evoking metaphors and unfamiliar ways of thinking about the durable riddles of human governance.

The study of common-pool resource governance seems to be of large significance. It provides an articulate language and diverse research traditions for studying a fundamental problem of human life: how we may endure in a world in which our burgeoning control of nature does not imply an ability to govern ourselves. So far this is a field of study, not yet a prescription for improvement. Much remains to be done. The volume is notably silent, for example, on how the eight design principles set out in Ostrom's Governing the Commons have been tested or modified by research over the past decade. The testing of basic hypotheses has yet to come into focus. The Drama of the Commons should stimulate its readers to contribute to this important field of the human sciences, and to reaffirm an enduring hope of intellectual endeavor-that nothing is as practical as a good theory.

