Is the only form of 'reasonable regulation' self regulation?: Lessons from Lin Ostrom on regulating the commons and cultivating citizens

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Abstract Elinor Ostrom, the 2009 Nobel Prize winner in economic science, has made significant contributions throughout her career to the disciplines of political economy and public choice. This article focuses on her contributions to our understanding of how rules of selfgovernance can produce cooperation out of situations of conflict over resource use. Through the use of a multiple-methods approach to political economy, Ostrom has demonstrated in a variety of historical circumstances and within a diversity of institutional environments how individuals can craft rules so that they can live better together in their communities and realize the gains from social cooperation under the division of labor.

Keywords Political economy \cdot Collective action \cdot Governing the commons \cdot Self-regulation

1 Introduction

Elinor Ostrom, the 2009 Nobel Prize winner in economic science, has made significant contributions throughout her career to the disciplines of political economy and public choice. Her most widely recognized contributions relate to the work on common-pool resources. She has discovered a diversity of institutional arrangements that serve in various human societies to promote cooperation and avoid conflict over resource use. Where a strict interpretation of theory would predict over-use and mismanagement, she found collective action arrangements that proved effective in limiting access and establishing accountability. Many of the effective tools of governance she found resided not in the formal structure of government, but instead in the informal, and sometimes even tacit, rules that communities live by.

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BB&T Chair for the Study of Capitalism at Mercatus Center, and University Professor of Economics, George Mason University. Paul Dragos Aligica, Chris Coyne, Daniel D'Amico, Peter Leeson, Steve Medema, Mario Rizzo and Daniel Smith provided helpful comments. The usual caveat applies.

I would like to push Lin's argument a bit, and ask whether the foundation of an effective system of regulation must be found first and foremost in the rules of self-regulation that communities adopt and their citizens abide by, rather than in well-designed regulatory statutes by efficiency experts. Efforts to regulate human activities to suppress our most crass desires, discipline our wildest whims, and harness our self-interest exist throughout the world. Most of our intellectual efforts as economists and political economists have been directed at studying the formal regulations established and implemented by agencies within government. Lin, on the other hand, studied the political economy of everyday life and the self-regulation of behavior, rather than the political economy of government exclusively. What do we learn from Lin's work about the relationship between these two forms of the regulation of behavior in human societies (also see Boettke 2001, and Boettke et al. 2008)? Thus, my question, 'is the only form of 'reasonable regulation' self-regulation?'

2 The paradox of governance and the elusive quest for 'reasonable regulation'

Several years ago I was at a conference celebrating the work of P.T. Bauer at the London School of Economics. Anne Krueger summed up (I am paraphrasing her) what we learned about economic policy during the last quarter of the 20th century with the statement to the effect: 'Yes, Bauer is right free markets outperform government central planning and government intervention. But we also know that completely unfettered markets are unrealistic. We can all agree that what we need is to establish *reasonable regulation that is not capturable by special interests*.' I was immediately struck by Krueger's phraseology because it seemed, well, so reasonable. Who could be against 'reasonable regulation' that wasn't captured by special interest groups? Nobody in their right mind would argue for unreasonable regulation dominated by interest group politics. Anne Krueger, as she so often does, had hit the nail on the head. But still I had a nagging thought so I raised my hand. "What if," I said, "that set of regulations is a null set?" My question was never seriously entertained that day, but I think it should be.

One of the grand dilemmas of political economy is the recognition that when we turn to government to solve our problems we necessarily create a new set of problems that previously did not exist that must now be addressed. I am not saying *a priori* that the costs of addressing these problems always outweighs the benefits of turning to government, but only that we need to be conscious of the fact that we have in fact created a new set of problems to contend with and contending with it entails costs that must be taken into account. We turn to government in the first place to provide security in our daily lives—protection of property, the guarantee of contracts, etc. In short, we turn to government because we are concerned about the threat of private predation. Unfortunately, as soon as we establish a government body to provide for our protection we become vulnerable to the threat of public predation. So we have to engage in costly measures to protect us against the predatory behavior of government. As James Madison explained the basic dilemma in *The Federalist Papers*, we have to empower the state and then constrain the state. This is, in essence, the constitutional project in forming a workable government.

The desire to institute reasonable regulation that is not captured is laudable, but implementing such a desire in practice is a question of positive political economy. By what means can we establish such regulations through the political process, and how are we going to enforce them, and hermetically seal them from capture by interested parties?

The positive political economy of regulation leads us to question theories of regulation that postulate either a public interest origin (not deny but certainly to question) and a benevolent despot idea of enforcement. Instead, it is a common practice in positive political economy to dig into the data to infer intentions from outcomes and to follow the money trail and always ask who benefits at whose expense. Regulation may indeed be introduced to address some perceived market failure, but we cannot assume that the government regulation will costlessly correct for the problem. This demand for comparative institutional analysis, of course, was one of Ronald Coase's main points in both his 1959 paper on the FCC and his 1960 paper on social cost.

In the Federal Communications Commission paper, Coase argued that:

Quite apart from the malallocations which are the result of political pressures, an administrative agency which attempts to perform the function normally carried out by the pricing mechanism operates under two handicaps. First of all, it lacks the precise monetary measure of benefit and cost provided by the market. Second, it cannot, by the nature of things, be in possession of all the relevant information possessed by the managers of every business which uses or might use radio frequencies, to say nothing of the preferences of consumers for the various goods and services in the production of which radio frequencies could be used ...

The operation of the market is not itself costless, and if the costs of operating the market exceeded the costs of running the agency by a sufficiently large amount, we might be willing to acquiesce in the malallocation of resources resulting from the agency's lack of knowledge, inflexibility and exposure to political pressure (Coase 1959, p. 18).

In other words, attempts to replace the price system with government administration of allocations run into the problems of calculation, dispersed knowledge, and political interestgroups, and these problems not only distort existing arrangements, but curtail the entrepreneurial discovery procedure of new and potentially better ways to arrange affairs and allocate resources.

In his problem of social cost paper, Coase explains further that we must: "start our analysis with a situation approximating that which actually exists, to examine the effects of a proposed policy change and attempt to decide whether the new situation would be, in total, better or worse than the original one" (Coase 1960, p. 43). It would be desirable, Coase adds, if policy reform were costless and we could guarantee that proposed changes would work as planned so we gain more than we lose. "But in choosing between social arrangements within the context of which individual decisions are made, we have to bear in mind that a change in the existing system which will lead to an improvement in some decisions may well lead to a worsening of others. Furthermore, we have to take into account the costs involved in operating the various social arrangements (whether it be the working of a market or of a government department), as well as the costs involved in moving to a new system" (Coase 1960, p. 44).

Coase's argument is not that the laissez-faire market is ideal (unless that is merely definitional), but instead that the quest for 'reasonable regulation' is elusive. In other words, it is not so unreasonable to question the ease with which we find in existence (let alone design, implement, and sustain) "reasonable regulation" of markets by government.

Recognizing the elusive question doesn't change the fact that human beings are imperfect and their passions need to be tamed. Governance is required. We humans must be disciplined for a peaceful and prosperous social order to emerge. But how precisely do we tame those human passions, and what mechanisms do we employ in the taming? Hirschman (1977) argued that throughout the intellectual history of the west, the taming of the passions was the object of various systems of beliefs. The passions, Hirschman argues, could be repressed by authority and force, they could be suppressed by religious conviction, they could be harnessed, or they could be held in check by the countervailing force of pitting passion against passion. Economic theory, in fact, could be said to have been born in the effort to see how the passions are harnessed through commercial interest so that our private vices would be transformed into public virtue. And, it was through refinements in the classical theory of political economy, and the historical practice of constitutional craftsmanship by the American founding fathers that led to an appreciation of the counter-veiling forces in society.

The mechanism for the harnessing, as well as the checking, of the passions identified by the classical political economists was private property and the price system, and the rule of law and constitutional order (see Hayek 1948, pp. 11–14). Competition in the pursuit of profit, as well as the penalty of loss, would discipline men so that they would orient their behavior to realize the gains from trade and the gains from innovation in the most effective way possible given tastes, technology, and resource availability. Profits encourage risk taking by economic actors, while losses encourage prudence in decision-making. The market economy was a clear example of a self-regulating system where risk and prudence were balanced against each other.

Participants within a market economy are incentivized to seek out mutual advantageous exchange and discover least cost methods to realize those gains from exchange. Mankind would be better served by 'truck, barter, exchange' than by pursuing 'rape, pillage, plunder' provided that the institutional environment within which men act ensured that mutually advantageous trade, rather than violent taking, was the more economically rewarding activity. The passions would be harnessed and they would be held in check, and peace and prosperity would follow from the establishment of a system of 'property, contract, and consent'.

The main intellectual debate in political economy since the 18th century has been whether social order is a function of the taming of the passions by central authority (Hobbes) or through the "invisible hand" of the market economy (Smith). Enter Elinor Ostrom in the late 20th century, not so much to resolve the debate as to transcend it. Ostrom has persuasively argued, that this traditional way of looking at things proved to be ineffective in addressing situations as diverse as understanding the organization of local public economies to the plight of underdevelopment, and the management of forestry and fisheries in-between. One way to think of her contribution to the economics of governance is to view her work as arguing that there were Smithian (spontaneous order) answers to Hobbesian (constructivist) questions. But that really doesn't quite capture the essence of her argument, which drills deeper into the form and function (and enforcement) of the rules of governance that are in operation in a diversity of human societies.

3 From municipal public goods to community-based resource management

In the debate over local public economies, Lin and her husband Vincent, challenged the conventional wisdom in public administration by arguing that efficient administration was not a function of consolidation and centralized administration, but a by-product of poly-centric processes of local communities competing for residents through the provision of public goods and services in exchange for local taxes and fees (see, e.g., McGinnis 1999a). What looked chaotic to the rationalistic mind of modernist public administration, was in fact the orderly organization of local public economies that emerged from citizen participation and community engagement. Decentralized mechanisms were in operation that generated a more responsive and adaptable municipality to satisfy the demands of its citizens than the

efficiency experts in modern public administration were recognizing. The 'scientific' consensus for centralization of administration was mistaken and where followed would lead to a worsening (rather than an improvement) in the performance of the basic functions of governance in urban areas.

But what was true of managing public administration of police, schools, and utilities in large urban environments was also true, the Ostroms argued, for management of commonpool resources from fisheries to forestry to irrigation systems in rural and underdeveloped environments (see, e.g., McGinnis 1999b). Efforts by the efficiency experts to centralize administration of resource allocation ran into the problems of malallocation (as Coase had also identified) due to inability to engage in economic calculation, inability to mobilize the dispersed knowledge in society, and the failure to ward off the destructive influence of special interest groups. However, there is a flip side to the Coasean framework that must be recognized. The proponents of modern public administration often made arguments that not only claimed that the decentralized forces at work were inefficient compared to centralized administration, but that local actors couldn't negotiate their way around the inefficiencies no matter how hard they might try. Coase asked instead for economists and policy makers to look at where the deals (often hidden) were being made that enable people to transform situations of conflict into opportunities for cooperation. Similarly, the Ostroms looked at the agreements on the rules of governance and mechanisms of enforcement that local people crafted (or stumbled upon) that turned situations of potential conflict into opportunities for cooperation. Lin's work showed that the people she has studied dealing with common-pool resources in a variety of contexts don't face a 'tragedy of the commons' as much an 'opportunity of the commons' and in the opportunity the situation of conflict presents itself as an opportunity to find the right rule systems that work to ensure a well-governed commons and the possibility of peaceful cooperation (see Tabarrok 2009).

We can, and do, in short, find ways to live better together. As Shivakumar (2005, p. 131) put it, the Ostroms work points us in the direction of a "new science of politics" for understanding democratic civilization in the 21st century, a science that "draws on the human capacity to craft the rules of self-governance through reflection and choice. Indeed, human beings possess the potential to improve their well-being by devising rules governing their association with each other."

4 Summing up the lessons from Lin

So what does this work mean for the future of public choice and political economy? Much of the history of public choice has been defined by the economic examination of politics and formal government. The work of the Ostroms certainly isn't blind to formal government. But their work asks us to think more broadly about governance—the formal and informal rules of the social game that tame, harness and check our passions, and the mechanisms of enforcement that ensure effective governance even in the most unexpected environments. How actually does good governance work in situations when it shouldn't, and how do individuals in these societies develop the capacities necessary to be self-governing citizens, are the questions their work forces us to consider.

I would argue that the first enduring lesson from Lin's work is that individuals in their local situation are more effective at knowing what the right rules and actions are to avoid conflict and promote cooperation than government officials removed from the daily life of the community. Trust in the people to craft the right rules rather than experts from afar who promise rational solution to social ills. This conclusion can be interpreted either as a caution

to would be reformers to respect local traditions and customs prior to efforts at imposing change in governance structures (let's call this caution optimism), or as a sanction against all such efforts at reform from afar and an embracing of the conclusion that the only path to reform in an indigenous one (let's call this pessimistic). It is probably fair to say that Lin would not deny the possibilities of improvements in governance coming from foreign experts, but she does stress that these reform efforts respect the incentives that recipients of the assistance face and the nested games that are being played throughout the policy process (see, e.g., Ostrom et al. 2002).

Lin, and Vincent in particular, often pointed to Hamilton's quote from *The Federalist Papers* for inspiration: "whether societies of men are really capable or not of establishing good government from reflection and choice, or whether they are forever destined to depend for their political constitutions on accident and force" (Ostrom 1997, p. 10). They are cautiously optimistic that man can establish good government through reflection and choice, and not forever be knocked about by the rough seas of history. However, it is important to stress where the Ostroms found their reasons for optimism. Hope, in their writings, is not to be found in rationalistic reforms of government planners informed by the modern science of public administration, but in the 'science and art of association' as practiced by a self-governing citizenry. It is people and their capacity to embrace (rather than shirk from) the troubles of thinking and the cares of living, not the machinations of politics, that give rise to hope that constitutional craftsmanship will produce a social order of peace and prosperity.

I want to emphasize a reading of her (and Vincent's) research that nudges this argument a bit further and emphasizes what I believe to be the consistent and full implications of what we have learned from the various studies emerging from the research at the Workshop in Political Theory and Policy Analysis for the 'science and art of association'. The rules that are binding are the rules that people live by already. Lin has found, in the field of collective action, the equivalent of finding the Coasean trades in private markets that were already struck to resolve conflicts over property and resource use. Beekeepers and apple growers, Cheung (1973) showed, worked out deals that addressed the potential externality issues even though market failure theorists had pointed to the example in textbooks and papers as a prime example of an externality that would result in market failure. Economic life practice defied what the pure logic of the theory predicted, and what that tells the analyst is that the solution to the puzzle is to be found in the institutional details in the arrangements worked-out by people in their everyday life. In the case of beekeepers and apple-growers, it was contractual deals that internalized the externalities; in the case of mountain grazing in Switzerland and irrigation systems in Spain, it was internal rules and monitoring arrangements that disciplined temptations to violate community rules and ensured a robust conformity to those rules of governing the common-pool resource (see Ostrom 1990, pp. 58–102).

The major insight that Lin's work on common-pool resource management emphasized was the evolved rule systems that emerged in order to provide accountability and effective mechanisms of punishment for those who violate the rules. Community based rules and community engagement found ways around the conflict-ridden situation of the commons, just as beekeepers and apple growers found ways around the situation of the externality, to realize the possibility of mutually advantageous social cooperation. These local systems of self-governance to preserve and protect the common-pool resource, Lin found in a diversity of human societies, persisted through time—in some instances for a century, in other instances dating back as far a millennium. She has been quick to point out that she is not saying that these rules systems reflect the optimal form of governance imaginable given the circumstances, but she does not hesitate in labeling them as successful systems of governance either.

This leads to the second major lesson from Lin's work—it is the 'rules in use' that matter for social cooperation, not so much the 'rules in form'. In examining systems of governance, we need to distinguish between 'rules in form' (on the books) and 'rules in use' (the lived practice of everyday life), and I would add that there is also the discussion of the function of rules. In the basic economics of property rights, the rules surrounding property rights provide economic actors with incentives that guide their behavior. Property rules determine who owns what, and what they can do with what they own. Private property rights delineate ownership, provide accountability, and encourage stewardship. Without clearly defined and enforced property rights, incentives become distorted and decisions over resource use are made with less care. Thus, when due to technological difficulties or other impediments, the establishment of private property rights over a resource is 'impossible' traditional theory would predict poor management demanding either privatization or extensive regulation or government ownership.

Lin's detailed studies of the management of common-pool resources should make us think twice about these well-worn classifications of ownership rights. What she has demonstrated is not only that the 'rules in use' determine practice rather than the 'rules in form', but that the same function of rules can be served by a diversity of forms of rules (see Ostrom 2005). In short, the function that private property rights has served in terms of providing incentives for accountability and responsibility in resource use has been served by a variety of community based rule systems. These rules in use employ various methods to limit access to the resource, assign accountability to those who utilize it or are entrusted with its care, and establish methods of punishment for those who violate the community rules (ranging from monetary fines to social sanctions such as shaming and shunning).

The work demonstrates that people are capable of devising systems of self-regulation in a variety of circumstances. To get to the theme from my title, we see in the varied experience of common-pool resources in western societies as well as non-western societies, and across historical epochs and stages of development, self-regulation systems work to discipline the passions of man and turn situations of potential conflict into a reality of social cooperation. And, since the self-regulation systems in these varied environments and across time are operating outside of the formal realm of politics, they do not face the problem of protecting against unwanted influence of politically empowered special interest groups. Governance without Government can, and does, happen in the lived world in which we study as political economists, even in the least favorable of circumstances (see, e.g., Leeson 2009). 'Reasonable regulation' as I defined here (from Anne Krueger) becomes not elusive but realized in the examples provided in Lin's works on 'self-regulation'. No longer defined as the null set, we now find a variety of examples of effective systems of rules that govern man's social interactions by taming his passions and harnessing them in the direction that produces peaceful social cooperation under the division of labor even in situations (such as with the management of common-pool resources) that we should be most pessimistic about voluntary ordering of human affairs.

There are two additional lessons from Lin's work that are essential for the future of public choice scholarship. The third lesson I would stress is Lin's intellectual curiosity and methodological openness to a variety of techniques and approaches to learning. She studied at UCLA, where she learned economics from Armen Alchian as an undergraduate. She pursued a degree in political science, where she studied local public economies and was influenced by the idea Tiebout competition in public economies. She was a major contributor to public choice and modern political economy, in fact a pioneer in these fields focusing her work on puzzles of the tragedy of the commons, prisoner dilemmas, and the logic of collective action. She engaged in detailed case studies, but also looked to abstract game

theory to help her understand the dynamic play between rules and strategies in the political economy of everyday life. She also turned to the lab and experimental economics to test out her theories of common-pool resources, as well as experiments in the field to learn about the applicability of her ideas to different contexts. In her presidential address to the American Political Science Association, Lin described her own approach as "A Behavioral Approach to the Rational Choice Theory of Collective Action" (Ostrom 1998). And, when you unpack that description it somehow fits perfectly. Finally, she understood that her work on rule systems represented the study of complex phenomena and not simple phenomena. In order to study complex phenomena, Lin sought to gain additional insight from the field of social complexity and computer modeling of complex systems. It is arguable, that not since Kenneth Boulding (see, e.g., Boettke and Prychitko 1996) have we seen a social scientist allow their sheer curiosity about the world to take them on such a methodological journey of so many different approaches to get at the phenomena she wants to understand-the rules of self-governance that are in operation in the lived lives of a diversity of people that result in cooperation and avoid conflict (Poteete et al. 2010). At the same time, she has a unity in her research methods as well-rational choice as if the choosers were human, and institutional analysis as if history mattered.

The final lesson from Lin, and one that certainly deserves to be highlighted, is her (and Vincent's) motivation for their life project as scholars and educators in the policy sciences. They view their vocation as one of cultivating a self-governing citizenry and the characteristics necessary for such a citizenry. In an interview for my book with Paul Dragos Aligica, *Challenging Institutional Analysis and Development: The Bloomington School* (2009, p. 159), Lin states of their joint work at the Workshop that one of their "greatest priorities" has always been that their research and education efforts are geared toward cultivating citizens that have the capacity for self-governance. "Self-governing, democratic systems are always fragile enterprises," Lin points out. "Future citizens need to understand that they participate in the constitution and re-constitution of rule-governed politics. And they need to learn the 'art and science of association'. If we fail in this, all our investigations and theoretical efforts are useless."

Those are very inspiring words and deeds.

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