

Governance, Agency and Autonomy: Anarchist Themes in the Work of Elinor Ostrom

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INTRODUCTION

This paper is intended as one in a series, to be read along with my previous one on James C. Scott¹, on anarchist and decentralist thinkers whose affection for the particularity of local, human-scale institutions overrides any doctrinaire ideological labels.

The Governance of Common Pool Resources. Ostrom begins by noting the problem of natural resource depletion—what she calls “common pool resources”—and then goes on to survey three largely complementary (“closely related concepts”) major theories that attempt to explain “the many problems that individuals face when attempting to achieve collective benefits”: Hardin’s “tragedy of the commons,” the prisoner’s dilemma, and Olson’s “logic of collective action.”²

Unfortunately, these models (or this model) ossified into a dogma, serving more often as a substitute for thought than a starting point. Even more than twenty years after Ostrom’s seminal work, it’s still common to state as a truism—backed only by a passing allusion to Hardin or the prisoner’s dilemma—that the actual users of resources will inevitably deplete them in the absence of governance by some higher authority or other. Ostrom cites one blithe assertion, in an article on fisheries in *The Economist*: “left to their own devices, fishermen will overexploit stocks.... [T]o avoid disaster, managers must have effective hegemony over them.”³

This last quote exemplifies perfectly the common approach to the governance of common pool resources taken by advocates both of state regulation and corporate privatization. Garrett Hardin himself, later revisiting his article on the tragedy of the commons, argued that the problem of resource depletion would have to be addressed either by “a private enterprise system” (i.e. ownership by for-profit business firms) or “socialism” (i.e. ownership and regulation by the state).⁴ (The assumption that “private enterprise” and “socialism” both require managerial hierarchies of one sort or another, and are incompatible with horizontal, self-organized institutions, speaks volumes about the internalized values of the intellectual stratum.)

1 Kevin Carson, *Legibility & Control: Themes in the Work of James C. Scott*. Center for a Stateless Society Paper No. 12 (Winter/Spring 2011) <<http://c4ss.org/wp-content/uploads/2011/05/James-Scott.pdf>>.

2 Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge University Press, 1990), pp. 1-7.

3 *Ibid.*, p 8.

4 *Ibid.*, p. 9.

Ostrom goes on to consider the unsatisfactory performance of both the state and the market⁵ in addressing the problem.

It should be noted right off that the juxtaposition between “common property” and “private property” put forward by mainstream capitalist libertarians is just plain silly. In cases where parceling out a common resource to individuals is by the nature of the case impossible, Ostrom says, one is hard-pressed to understand just what is meant by “private.” Open fields or common pasture can be divided up into separate plots and distributed to individuals; but fisheries?⁶ Common pool resources, by the nature of things, must be owned and governed by some sort of collective institution, whether it be the state, a corporation—or a self-organized, horizontal association of the users themselves.

Ownership by a for-profit corporation is no more “private” than (or if you prefer, just as “collectivist” as) the administration of a commons by its users. In corporate law, a firm's property is owned, and its management employed, by a unitary person created under the terms of the corporate charter. No individual shareholder or group of shareholders has any right of ownership over the firm's assets or authority over its management.

Both the conventional “privatization” and “state regulation” approaches amount, when all the legal fictions are stripped away, to substituting the judgment of managers working for some absentee central authority (perhaps only in theory, working in fact for their own interests) for that of users. So we might expect it to result in the same knowledge and incentive problems that always result from externalizing costs and benefits, when ownership and control are divorced from direct knowledge of the situation.

On the other hand, we might expect that placing control directly in the hands of those with Hayekian local knowledge of a situation results in outcomes far preferable to either of the other two approaches based on verticality and absentee control.

And Ostrom's findings bear out that expectation.

Rather than starting from the assumption that the users of common resources are helpless without an outside authority intervening to protect them from themselves, she assumes that “the capacity of individuals to extricate themselves from various types of dilemma situations *varies* from situation to

⁵ Ostrom consistently uses the term “market” in the sense of “cash nexus” or “for-profit business sector,” rather than a general legal regime of voluntary contract and enforceable property rights. Unless specified otherwise, I will be using the term in her sense.

⁶ *Ibid.*, p. 19.

situation,” and then adopts the empirical approach of surveying “both successful and unsuccessful efforts to escape tragic outcomes.”⁷

To the two orthodox models of state and corporate ownership, Ostrom juxtaposes the administration of a commons by a binding contract among the commoners themselves, “to commit themselves to a cooperative strategy that they themselves will work out.”

Of course there are ways they could go wrong; livestock owners “can overestimate or underestimate the carrying capacity of the meadow,” or their monitoring system can break down. But even so, these potential points of failure arguably exist in stronger form in the case of absentee governance by a central institution. The monitoring system is based on the users themselves, who are neighbors and who as users have a strong incentive to prevent defection by the others, observing each other directly—considerably more effective, one would think, than the typical inspection regime of a state regulatory authority (my mother, who worked in a poultry processing plant and came into daily contact with USDA inspectors, could have told you that). And their calculations of carrying capacity and sustainable yield, while fallible, at least “are not dependent on the accuracy of the information obtained by a distant government official [or corporate home office, I might add] regarding their strategies.”⁸

Ostrom's empirical survey casts light not so much on whether such horizontal governance of a commons by the commoners themselves works—obviously sometimes it does—but on what particular governance rules produce optimal results.

Really, it stands to reason that cooperative governance of common pool resources, all other things being equal, will be more effective in formulating and enforcing rules than governance by either a government agency or a corporation. “Because the individuals involved gain a major part of their economic return from the CPRs, they are strongly motivated to try to solve common problems to enhance their own productivity over time.”⁹

So what remains, in the course of Ostrom's investigation, is “to identify the underlying design principles of the institutions used by those who have successfully managed their own CPRs over extended periods of time....”¹⁰ What measures, in particular, did they take to address the real problems presented by “temptations to free-ride, shirk, or otherwise act

⁷ *Ibid.*, p. 14.

⁸ *Ibid.*, pp. 15-18.

⁹ *Ibid.*, p. 26.

¹⁰ *Ibid.*, p. 27.

opportunistically”?¹¹ The middle part of her book is accordingly devoted to a survey of

field settings in which (1) appropriators have devised, applied, and monitored their own rules to control the use of their CPRs and (2) the resource systems, as well as the institutions, have survived for long periods of time. The youngest set of institutions to be analyzed... is already more than 100 years old. The history of the oldest system to be examined exceeds 1,000 years.¹²

The rules for governing common pool resources, in the instances Ostrom examined, worked in situations where game theory would have predicted incentives to defect were strong and negative consequences of defection were weak (as in common governance systems for irrigation water in the Spanish Philippines, where monitoring was relatively weak and fines were low compared to the benefits of defection, and stealing water in a drought might save an entire season's crop).¹³

And far from reflecting “an anachronistic holdover from the past,” governance systems for common pool resources have typically reflected close empirical reasoning from historical experience. In the case of communal for pastoral mountain land,

for at least five centuries these Swiss villagers have been intimately familiar with the advantages and disadvantages of both private and communal tenure systems and have carefully matched particular types of land tenure to particular types of land use.¹⁴

Based on her survey, Ostrom distilled this list of common design principles from the experience of successful governance institutions:

1. Clearly defined boundaries. Individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself.
2. Congruence between appropriation and provision rules and local conditions. Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labour, material, and/or money.

11 *Ibid.*, p. 29.

12 *Ibid.*, p. 58.

13 *Ibid.*, p. 59

14 *Ibid.*, p. 63.

3. Collective-choice arrangements. Most individuals affected by the operational rules can participate in modifying the operational rules.
4. Monitoring. Monitors, who actively audit CPR conditions and appropriator behaviour, are accountable to the appropriators or are the appropriators.
5. Graduated sanctions. Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offence) by other appropriators, by officials accountable to these appropriators, or by both.
6. Conflict-resolution mechanisms. Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials.
7. Minimal recognition of rights to organize. The rights of appropriators to devise their own institutions are not challenged by external governmental authorities.

For CPRs that are parts of larger systems:

8. Nested enterprises. Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.¹⁵

Here are some thoughts that occurred to me as I read through Ostrom's common principles. Historically, many commons governance regimes have failed as a result of outside interference, by states and landed elites, with the spirit of No. 7. That was true of both Stolypin's "reform" and Stalin's forced collectivization, which both ran roughshod over the *Mir's* internal rights of self-governance. In addition, Stolypin's land policy in its substance violated No. 1, by allowing individual households to withdraw aliquot shares of land from the village's common fields as a close (in English terms) without the consent of the *Mir* as a whole. In so doing, it violated the basic social understanding of the nature of property ownership built into the system from its founding.

To put it in terms understandable by the kind of right-wing libertarian who instinctively cheers for the word "private" and boos "common," imagine if a legislature overrode the terms of a corporate charter and let individual shareholders barge into factories with front-end loaders and carry off some

¹⁵ *Ibid.*, p. 90.

aliquot share of machinery—under the terms of the charter owned solely by the corporation as a single person—from assembly lines. Imagine how that would disrupt production planning within a factory. That's what Stolypin's policies did to land-use planning by the *Mir* for those lands remaining within the open-fields.

No. 3, the right of those affected by the rules to have a say in devising them, is—normative theories of participatory democracy aside—a prerequisite for an efficiently functioning institution. As Ostrom says:

CPR institutions that use this principle are better able to tailor their rules to local circumstances, because the individuals who directly interact with one another and with the physical world can modify the rules over time so as to better fit them to the specific characteristics of their setting.¹⁶

The separation of decision-making power from both distributed situational knowledge and experience of the consequences is key to all the knowledge and incentive problems of hierarchical, authoritarian institutions, whether they be governments or corporations. Top-down authority is a mechanism for expropriating the benefits of others' work for oneself, and externalizing cost and inconvenience downward.

Given the obvious knowledge and incentive problems resulting from separation of authority from competence, why is hierarchy ever adopted in the first place? The answer lies in clearing our minds of unconscious assumptions that institutional design is something that “we” or “society” do in order to maximize some vague idea of the “common good.” Hierarchy exists because those who run the dominant institutions of state and corporation have a fundamental conflict of interest with those who possess the situational knowledge, such that the former cannot trust the latter to use their own best judgment. The manager of a hierarchical institution, like the owner of a slave plantation, cannot trust her subordinates to use their own best judgment lest she find her throat cut in the middle of the night. And subordinates know full well that if they use their situational knowledge to maximize efficiency, any productivity gains will be expropriated by management in the form of downsizings, speedups and management bonuses.

Most production jobs involve a fair amount of hidden or distributed knowledge, and depend on the initiative of workers to improvise, to apply skills in new ways, in the face of events which are either totally unpredictable or cannot be fully anticipated. Rigid hierarchies and rigid work rules only work

¹⁶ *Ibid.*, p. 93.

in a predictable environment. When the environment is unpredictable, the key to success lies with empowerment and autonomy for those in direct contact with the situation.

The problem with authority relations in a hierarchy is that, given the conflict of interest created by the presence of power, those in authority cannot *afford* to allow discretion to those in direct contact with the situation. Systematic stupidity results, of necessity, from a situation in which a bureaucratic hierarchy must develop some metric for assessing the skills or work quality of a labor force whose actual work they know nothing about, and whose material interests militate against remedying management's ignorance. When management doesn't know (in Paul Goodman's words) "what a good job of work is," they are forced to rely on arbitrary metrics.

Weberian work rules are necessary because those at the top of the pyramid cannot afford to allow those at the bottom the discretion to use their own common sense. Because the subordinate has a fundamental conflict of interest with the superior, and does not internalize the benefits of applying her intelligence, she cannot be trusted to use her intelligence for the benefit of the organization. In such a zero-sum relationship, any discretion can be abused.

On the other hand, subordinates cannot afford to contribute the knowledge necessary to design an efficient work process. R.A. Wilson's analogy of the person in authority confronting the subordinate as a "highwayman" is a good one. The party with residual claimancy in any economic institution—like a business firm—will use the powers associated with ownership to obtain a disproportionate share of the surplus. Those who lack ownership stakes will have a corresponding incentive to under-invest their knowledge and skills in the performance of the enterprise. Hence, the most rational approach to maximizing productivity is to assign residual claimancy or ownership rights to stakeholders in accordance with their contribution to productivity.¹⁷

This almost never happens, because it's in management's perceived self-interest to engage in self-dealing even at the expense of the overall productivity of the firm. So workers instead hoard knowledge and minimize their legibility (in James Scott's terms) to management and minimize the chance that the increased productivity resulting from their hidden knowledge will be used against them or expropriated. Hence, hierarchies are a very inefficient way of organizing activity, from the standpoint of harnessing the full capabilities and knowledge of the workforce.

¹⁷ Sanford J. Grossman and Oliver D. Hart, "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," *Journal of Political Economy* 94:4 (1986), pp. 716-717.

But when given a choice between efficiency and control—between a larger pie and a larger slice of a smaller pie—management usually prefers to maximize the size of their slice rather than the size of the pie. Hierarchy is a way of organizing human activity so as to facilitate the extraction of rents from it, even at the expense of a severe degradation in efficiency.

Monitoring systems, No. 4, are best designed when “actors most concerned with cheating [are placed] in direct contact with one another.” For example, in an irrigation rotation system the actor whose turn it currently is is prevented from extending their turn past its scheduled end by the presence of the actors whose turn is next, eagerly waiting to take over.¹⁸ Grandma's practice of letting one child cut the cake in half and the other take first pick is the classic example of this principle. In many cases monitoring others' use of a commons is “a natural by-product of using the commons.” And successful monitoring is further encouraged by informal sanctions and rewards, sometimes as simple as the social approval or disapproval of one's neighbors.¹⁹

The cost of front-line supervision is generally about a quarter as much in the plywood cooperatives of the Pacific Northwest as in conventional capitalist operations, because of employee self-monitoring.²⁰

Under graduated sanctions, the modest penalties actually serve as a mutual confidence-building regime. Users who enter into a governance system suspicious their neighbors will violate the rules and thus having an incentive to defect themselves, will, on being detected and paying a modest penalty, be reassured that enforcement is credible, compliance is widespread, and they can expect to benefit rather than being taken advantage of by participating in the system.

There will always be a small minority, of course, who are immune to such moral sanctions. But the majority on whom such sanctions do work will reduce the cost of monitoring those who need closer surveillance.

Ostrom also considers the optimal conditions for overcoming the transaction costs of incrementally improving on a CPR governance system. She starts with the assumption that appropriators are “in a remote location under a political regime that is basically indifferent to what happens with regard to CPRs of this type,” and therefore unlikely to interfere either to promote or impede local governance decisions. Under such conditions, “the likelihood of CPR appropriators adopting a series of incremental changes in operational rules to

18 Ostrom, *Governing the Commons*, p. 95.

19 *Ibid.*, p. 96.

20 Edward S. Greenberg, “Producer Cooperatives and Democratic Theory” in Jackall and Levin, eds., *Worker Cooperatives in America* (University of California Press, 1986), p. 193.

improve joint welfare will be positively related to the following internal characteristics:

1. Most appropriators share a common judgment that they will be harmed if they do not adopt an alternative rule.
2. Most appropriators will be affected in similar ways by the proposed rule changes.
3. Most appropriators highly value the continuation activities from this CPR....
4. Appropriators face relatively low information, transformation, and enforcement costs.
5. Most appropriators share generalized norms of reciprocity and trust that can be used as initial social capital.
6. The group appropriating from the CPR is relatively small and stable.²¹

In other words, the same conditions under which Ostrom's earlier list of eight prerequisites for successful CPR governance are likely to be met in the first place.

As we shall see in the next section, states have exacerbated problems by artificially inflating the extent of background conditions—e.g. large, anonymous market areas with one-off dealings, social atomization, etc.—in which Ostrom's prerequisites for successful self-governance do not exist.

The existence of an interventionist state can hamper formation of local CPR governance regimes in another way, even when intentions are good. When locals in an area without CPR governance regimes already in place are aware of a central government with an interest in regulating CPRs, the temptation will be greatly increased to “wait and see” in hopes of free-riding off a central government regulatory policy.²²

And of course the difficulty faced by officials from a central government in obtaining sufficient knowledge of local conditions to formulate governance rules as effective as those designed by local appropriators in direct contact with local conditions, and the constant temptation to devise uniform policies for all jurisdictions, will impede good governance.²³

21 Ostrom, *Governing the Commons*, p. 211.

22 *Ibid.*, p. 213.

23 *Ibid.*, pp. 213-214.

Centralization, Atomization and Sustainability. Ostrom, surveying the value of self-organized governance institutions, writes:

...we will all be the poorer if local, self-organized institutions are not a substantial portion of the institutional portfolio of the twenty-first century. Many indigenous institutions developed to govern and manage local common-pool resources have proven themselves capable of enabling individuals to make intensive use of these resources over the long run—centuries or even millennia—without destroying the delicate resource base on which individuals and their future offspring depend for their livelihood....

Under banners associated with conserving the environment for future generations, international donors, national governments, international nongovernmental organizations, national charities, and others have, in many cases, unwittingly destroyed the very social capital—the shared relationships, norms, knowledge, and understanding—that has been used by resource users to sustain the productivity of natural capital over the ages.

These institutions are most in jeopardy when central government officials presume they do not exist (or are not effective).²⁴

Unfortunately, the conventional ideological framework for understanding governance institutions presumes that the natural state of affairs absent rules introduced from above is a Hobbesian war of all against all; the proper question, it follows from this starting point, is what policies governments should formulate to impose order on the chaos of voluntary interaction.

This mindset represents centuries worth of ingrained habits of thought, resulting from a shift from social organizations primarily (to James Scott's terminology in *Seeing Like a State*) “legible” or transparent to the people of local communities organized horizontally and opaque to the state, to social organizations that are primarily “legible” to the state from above.²⁵

The former kind of architecture, as described by Pyotr Kropotkin, was what prevailed in the networked free towns of late medieval Europe. The primary pattern of social organization was horizontal (guilds, etc.), with quality certification and reputational functions aimed mainly at making individuals' reliability transparent to one another. To the state, such local formations were opaque.

24 Ostrom, "Neither Market Nor State: Governance of Common-Pool Resources in the Twenty-first Century," Lecture presented June 2, 1994 at the International Food Policy Research Institute, Washington, D.C., p. 2.

25 James Scott, *Seeing Like a State* (New Haven and London: Yale University Press, 1998).

With the rise of the absolute state, the primary focus became making society transparent (or “legible”) from above. Things like the systematic adoption of family surnames that persisted from one generation to the next (and the 20th century follow-up of Social Security Numbers and other citizen ID numbers), the systematic mapping of urban addresses for postal or 911 service, etc., were all for the purpose of making society legible to the state. Like us, the state wants to keep track of where its stuff is—and guess what we are?

Before this transformation, for example, surnames existed mainly for the convenience of people in local communities, so they could tell each other apart. Surnames were adopted on an ad hoc basis for clarification, when there was some danger of confusion, and rarely continued from one generation to the next. If there were multiple Johns in a village, they might be distinguished at any particular time by trade (“John the Miller”), location (“John on the Hill”), patronymic (“John Richard's Son”), etc. By contrast, everywhere there have been family surnames with cross-generational continuity, they have been imposed by centralized states as a way of cataloguing and tracking the population—making it legible to the state, in Scott's terminology.²⁶

During the ascendancy of the modern state, the horizontal institutions of the free towns were at best barely tolerated—and usually not even that. Kropotkin wrote:

For the next three centuries the States, both on the Continent and in these islands, systematically weeded out all institutions in which the mutual-aid tendency had formerly found its expression. The village communities were bereft of their folkmoets, their courts and independent administration; their lands were confiscated. The guilds were spoliated of their possessions and liberties, and placed under the control, the fancy, and the bribery of the State's official... It was taught in the Universities and from the pulpit that the institutions in which men formerly used to embody their needs of mutual support could not be tolerated in a properly organized State; that the State alone could represent the bonds of union between its subjects; that federalism and “particularism” were the enemies of progress, and the State was the only proper initiator of further development. By the end of the last century, the kings on the Continent, the Parliament in these isles, and the revolutionary Convention in France, although they were at war with each other, agreed in asserting that no separate unions between citizens must exist within the State... “No state

²⁶ *Ibid.*, pp. 64-73.

within the State!" The State alone... must take care of matters of general interest, while the subjects must represent loose aggregations of individuals, connected by no particular bonds, bound to appeal to the Government each time that they feel a common need....

The absorption of all social functions by the State necessarily favoured the development of an unbridled, narrow-minded individualism. In proportion as the obligations towards the state grew in numbers the citizens were evidently relieved from their obligations towards each other.²⁷

Likewise, the preemption and absorption—or suppression—of all regulatory functions by the state favored the development of a mindset by which providers of goods and services were relieved of their obligations to provide reliable certifications of the quality of their wares to consumers, and consumers were relieved of their obligations to scrutinize their quality and the reputations of the vendors. It was the state's job to take care of that business for us, and we needn't bother our heads about it.

To accomplish a shift back to horizontal transparency, it will be necessary to overcome a powerful residual cultural habit, among the general public, of thinking of such things through the mind's eye of the state: i.e, if "we" didn't have some way of verifying compliance with this regulation or that, some business somewhere might be able to get away with something or other. We must overcome six hundred years or so of almost inbred habits of thought, in which the state is the all-seeing guardian of society protecting us from the possibility that someone, somewhere might do something wrong if "the authorities" don't prevent it.

In place of this habit of thought, we must think instead of *ourselves* creating mechanisms on a networked basis, to make us as transparent as possible to *each other* as providers of goods and services, to prevent businesses from getting away with poor behavior by informing *each other*, to prevent *each other* from selling defective merchandise, to protect *ourselves* from fraud, etc. The state has attempted to coopt the rhetoric of horizontality (e.g. "We are the government."). But in fact, the creation of such mechanisms—far from making us *transparent* to the regulatory state—may well require active measures to render us *opaque* to the state (e.g. encryption, darknets, etc.) for protection *against* attempts to suppress such local economic self-organization against the interests of corporate actors.

²⁷ Pyotr Kropotkin, *Mutual Aid: A Factor of Evolution* (New York: Doubleday, Page & Company, 1909), pp. 226-227.

We need to lose the centuries-long habit of thinking of "society" as a hub-and-spoke mechanism and viewing the world vicariously from the imagined perspective of the hub, and instead think of it as a horizontal network and visualize things from the perspective of the individual nodes which we occupy. We need to lose the habit of thought by which transparency from above even became perceived as an issue in the first place. Because the people who are seeing things "from above," in reality, do not represent us or have anything in common with us.

Such a shift in perspective will require, in particular, overcoming the hostility of conventional liberals who are in the habit of reacting viscerally and negatively, and on principle, to anything not being done by "qualified professionals" or "the proper authorities."

Arguably conventional liberals, with their thought system originating as it did as the ideology of the managers and engineers who ran the corporations, government agencies, and other giant organizations of the late 19th and early 20th century, have played the same role for the corporate-state nexus that the *politiques* did for the absolute states of the early modern period.

On his old MSNBC program, Keith Olbermann routinely mocked exhortations to charity and self-help, reaching for shitkicking imagery of the nineteenth century barn-raiser for want of any other comparison sufficient to get across just how backward and ridiculous that kind of thing really was. In Olbermann's world, of course, such ideas come only from conservatives. The only ideological choice is between plain, vanilla flavored managerialist liberalism and the Right. In Olbermann's world, the decentralist Left of Ivan Illich, Paul Goodman, and Colin Ward—"the 'recessive Left' of anarchists, utopians and visionaries, which tends only to manifest itself when dominant genes like Lenin or Harold Wilson are off doing something else," as one of the editors of *Radical Technology* put it—doesn't even exist.

Helping your neighbor out directly, or participating in a local self-organized friendly society or mutual, is all right in its own way, of course—if nothing else is available. But it carries the inescapable taint, not only of the quaint, but of the provincial and the picayune—very much like the stigmatization of homemade bread and home-grown veggies in corporate advertising in the early twentieth century, come to think of it. People who help each other out, or organize voluntarily to pool risks and costs, are to be praised—with just the slightest hint of condescension—for heroically doing the best they can in an era of relentlessly downscaled social services. But that people are forced to resort to such expedients, rather than meeting all their social safety net needs through one-stop shopping at the Ministry of Central Services office in a giant

monumental building with a statue of winged victory in the lobby, a la *Brazil*, is a damning indictment of any civilized society. The progressive society is one of comfortable and well-fed citizens, competently managed by properly credentialed authorities, contentedly milling about like ants in the shadows of miles-high buildings that look like they were designed by Albert Speer. And that kind of H.G. Wells utopia simply has no room for atavisms like the barn-raiser or the sick benefit society.

Not only does Ostrom challenge the authoritarian assumptions of the received view, but the focus of her work is almost entirely on the factors that foster horizontal legibility in forming trust networks.

...refocus the analysis from an assumption that individuals are hopelessly trapped in a situation from which they cannot extract themselves without an external authority deciding what should be done and imposing that decision on participants. Asking what “the” government should do assumes that external actors will always come up with wise decisions and implement them effectively and fairly. The perspective of this chapter leads the analyst to inquire how individuals facing commons problems can gain trust that others are trustworthy and that a cooperator will not be a sucker who contributes while others continue to free ride.²⁸

We should be asking how different institutions support or undermine norms of reciprocity instead of simply presuming that central authority is necessary to enforce rules related to cooperation on participants....²⁹

She lists a number of factors that facilitate the creation of an assurance commons:

When the structure of a situation includes repeated interactions, the level of cooperation achieved is likely to increase in those contexts in which the following attributes occur;

4. Information about past actions is made available;
5. Repeated interactions occur with the same set of participants;
6. Participants can signal one another by sending pre-structured information;

²⁸ Ostrom, “Building Trust to Solve Commons Dilemmas,” pp. 12-13.

²⁹ *Ibid.*, p. 25.

7. Prescriptions are adopted and enforced that when followed do lead to higher outcomes;
8. Participants are able to engage in full communication (via writing or “chat room” without knowing the identity of the others involved);
9. Participants are able to engage in full communication with known others (via face-to-face discussions or other mechanisms);In addition to communication, participants can sanction (or reward) each other for the past actions they have taken; and
10. Participants can design their own rules related to levels of cooperation and sanctions that are to be assigned to those who do not follow agreed-upon rules.³⁰

Communication is central to Ostrom's model for formulating viable governance systems. The “pure theory” behind the Prisoner's Dilemma game, she writes,

is about individuals who do not know one another, do not share a common history, and cannot communicate with one another. In this model, game theory predicts that individuals jointly using a commons will overharvest, leading to Hardin's (1968) “Tragedy of the Commons.”

...When a set of anonymous subjects makes decisions without communication about appropriation from a one-shot or finitely repeated, common-pool resource in a laboratory setting based on Gordon's (1954) bioeconomic theory, they behave broadly as game theory predicts.... They overharvest.... This is, however, not the end of the story. Making one simple change in the design of a laboratory experiment, allowing participants to engage in face-to-face communication (cheap talk), enables them to reduce overharvesting substantially.... When given a chance to communicate, most subjects first try to figure out what is the best joint strategy. Subjects, who are most successful, use communication to help build a group identity and commitment to follow their agreed-upon strategy.... Behavior changes dramatically and subjects greatly increase their joint payoffs....

³⁰ *Ibid.*, p. 22.

...Further, when given an opportunity to devise their own sanctioning rules, those who adopt their own rules tend to follow these rules closely, achieve higher joint returns, and the use of punishment drops to almost zero (Ostrom et al. 1992). Parallel to laboratory findings, field researchers have recorded a large number of empirical settings where those directly involved in a commons have themselves devised, adopted, and monitored rules over time that have led to robust common-pool resource institutions....³¹

It's interesting that not only do pathological outcomes in the Prisoner's Dilemma game depend on preventing horizontal communication, but the Milgram Experiment's results depended on totally isolating each subject in the face of authority—essentially the strategy of "individualization" that Foucault described in *Discipline and Punish*. Pro-social, cooperative behavior depends on people being in ongoing situations with horizontal communication channels, in which they know they're going to be dealing with each other in the future, and have an incentive not to shit where they eat.

Elsewhere, shared norms figure prominently in Ostrom's list of the attributes of community that are relevant for sustainable local systems of rules for governing common resources:

the values of behavior generally accepted in the community; the level of common understanding that potential participants share... about the structure of particular types of action arenas; the extent of homogeneity in the preferences of those living in a community; the size and composition of the relevant community; and the extent of inequality of basic assets among those affected.³²

Shared local cultural norms and cognitive templates for interpreting others' behavior are important for a sustainable system of rules.³³ When participants share cultural norms against defection, they are likely to behave more cooperatively than game theory based on purely utility-maximizing considerations would predict.³⁴

31 Elinor Ostrom. "Building Trust to Solve Commons Dilemmas: Taking Small Steps to Test an Evolving Theory of Collective Action" Workshop in Political Theory and Policy Analysis. Indiana University. Center for the Study of Institutional Diversity (Arizona State University, 2008), pp. 2-3.

32 Ostrom, *Understanding Institutional Diversity* (Princeton and Oxford: Princeton University Press, 2005), pp. 26-27.

33 *Ibid.*, pp. 106-108.

34 *Ibid.*, p. 122.

Of course, individuals start out with more innate inclination toward cooperation than game theory would predict. Ostrom echoes Kropotkin's cooperative take on evolutionary psychology in this regard:

Human evolution occurred mostly during the long Pleistocene era that lasted for about 3 million years to about 10,000 years ago. During this era, humans roamed the earth in small bands of hunter-gatherers who were dependent on each other for mutual protection, sharing food, and providing for the young. Survival was dependent not only on aggressively seeking individual returns but also on solving many day-to-day collective action problems. Those of our ancestors who solved these problems most effectively and learned how to recognize who was deceitful and who was a trustworthy reciprocator had a selective advantage over those who did not.... Humans have acquired well-honed skills at facial recognition and strong abilities to detect cheating. Research provides evidence that humans keep rough internal accounts—both in regard to goodwill... and threats....³⁵

On top of this, behavior also evolves on a Lamarckian pattern, with successful strategies quickly catching on and being propagated culturally.³⁶

Individuals are also more likely to behave cooperatively, and to formulate a sustainable set of governance rules, if they are engaged in an ongoing relationship in which present defection has future consequences and confidence increases from continued interaction, rather than in a one-off exchange with people they'll never see again. The outcomes of Prisoner's Dilemma games vary a great deal, depending on “whether the participants are engaged in a one-time encounter or over an indefinitely long sequence of plays.”³⁷

The issue isn't simply whether states are *necessary* for creating cooperative governance systems. The model of corporate capitalism promoted by modern states, arguably, fosters levels of centralization, atomization and anonymity that directly undermine the conditions required for stable local governance rule systems, and are instead conducive to individual adoption of rational egoist strategies at the expense of more cooperative ones.

³⁵ *Ibid.*, p. 125.

³⁶ *Ibid.*, pp. 126-127.

³⁷ *Ibid.*, p. 53.

As William Gillis put it, “States create game theoretic environments around their peripheries that suppress cooperation and reward antisocial strategies.”³⁸

The social capital embodied in self-organized governance systems takes generations of lived experience to build up, and can be quickly dissipated when state policies are destructive to it.

The shared cognitive aspects of social capital help to account for two of its unusual characteristics that differ from those of physical capital. First, social capital does not wear out the more it is used. It may, in fact, improve with use so long as participants continue to keep prior commitments. Using social capital for an initial purpose creates mutual understanding and ways of relating that can frequently be used to accomplish entirely different joint activities at much lower start-up costs. It is not that learning curves for new activities disappear entirely. Rather, one of the steepest sections of a learning curve—learning to make commitments and to trust one another in a joint undertaking—has already been surmounted. A group that has learned to work effectively together in one task can take on other similar tasks at a cost in time and effort that is far less than bringing an entirely new group together who must learn everything from scratch. The fungibility of social capital is, of course, limited to broadly similar activities. No tool is useful for all tasks. Social capital that is well adapted to one broad set of joint activities may not be easily molded to activities that require vastly different patterns of expectation, authority, and distribution of rewards and costs than those used in the initial activities.

Second, if unused, social capital deteriorates at a relatively rapid rate. Individuals who do not exercise their own skills can lose human capital relatively rapidly. When several individuals must all remember the same routine in the same manner, however, the probability that at least one of them forgets some aspect increases rapidly over time. Further, as time goes on, some individuals leave and others enter any social group. If newcomers are not introduced to an established pattern of interaction as they enter (through job training, initiation, or any of the myriad of other ways that social capital is passed from one generation to

³⁸ William Gillis, “The Retreat of the Immediate,” Center for a Stateless Society, November 17, 2013
<<http://c4ss.org/content/22627>>.

the next), social capital can dissipate through nonuse. Then no one is quite sure how a particular joint activity used to be done. Either the group has to pay some of the start-up costs all over again or forgo the joint advantages that they had achieved at an earlier time.³⁹

Authority, Legibility and Authoritarian High Modernism: Paging James Scott. According to Ostrom, most of the literature is “silent” on questions involving the factors that influence the adoption of common pool resource governance rules by appropriators, “since the presumption is made in this literature that making policies is what government officials, rather than those who are directly affected by problems, do.”⁴⁰

Unfortunately—from the perspective of government officials, anyway—the kinds of policies made by government officials rather than those directly affected by problems almost always result in stupidity, irrationality and suboptimality. In fact this is true of all situations—including decisions by corporate management—in which authority-based rules override the judgment of those in direct contact with a situation.

Ostrom cites a wide range of studies showing that “national government agencies have been notably unsuccessful in their efforts to design effective and uniform sets of rules to regulate important common-pool resources across a broad domain,” including government policies of nationalizing forests, fisheries, etc., previously governed by local user-groups.⁴¹ Many newly-independent developing countries nationalized land and water resources in the period from the 1950s through the 1970s, with disappointing results.

The institutional arrangements that local resource users had devised to limit entry and use lost their legal standing. The national governments that assumed these new and difficult tasks lacked adequate funds and personnel to monitor resource use effectively. They frequently turned to private forestry firms to gain revenue from these resources. Governments in these countries wanted to convert common-pool resources to a de jure government-property regime, but their actions frequently resulted in de facto open-access regimes.... The incentives of an open-access commons were accentuated since local users had

39 Ostrom, “Neither Market Nor State,” p. 21.

40 Ostrom, *Understanding Institutional Diversity*, p. 220.

41 *Ibid.*, p. 221.

specifically been told that they would not receive the long-term benefits of their own costly stewardship efforts.⁴²

As concern for the protection of natural resources mounted during the 1960s, any developing countries nationalized all land and water resources that had not yet been recorded as private property. The institutional arrangements that local users had devised to limit entry and use lost their legal standing, but the national governments lacked monetary resources and personnel to monitor the use of these resources effectively. Thus, resources that had been under a *de facto* common-property regime enforced by local users were converted to a *de jure* government-property regime, but reverted to a *de facto* open-access regime. When resources that were previously controlled by local participants have been nationalized, state control has usually proved to be less effective and efficient than control by those directly affected, if not disastrous in its consequences.... The harmful effects of nationalizing forests that had earlier been governed by local user groups have been well documented for Thailand..., Nepal... and India.... Similar results have occurred in regard to inshore fisheries taken over by state or national agencies from local control by the inshore fishermen themselves....⁴³

Two things are worth noting here. First, authority relations create both knowledge and incentive problems that result from faulty internalization. The main effect of authority is to decouple decision-making power both from situational knowledge and from experiencing the consequences of the decision. This stands to reason, since power is by definition the ability to override the judgment of others, shift costs onto others, and appropriate benefits for oneself. Depriving commoners of the benefits of wise stewardship of a common-pool resource destroys their incentive to effectively monitor and enforce use.

This leads us to the second note-worthy point: policies adopted by those in authority frequently reflect a zero-sum relationship between their interests and those over whom they exercise authority, in which the practical effect of a policy—despite its framing and ideological legitimization in terms of

⁴² *Ibid.*, pp. 221-222.

⁴³ Elinor Ostrom and Charlotte Hess. "Private and Common Property Rights" Workshop in Political Theory and Policy Analysis, Indiana University W07-25 11/29/07, pp. 7-8.

“efficiency,” “conservation,” or some other sort of “general welfare” consideration—is to directly promote the interests of authorities and their allies at the expense of the governed. The reference to collusive relationships between regulatory authorities and private forestry firms in the block quote above is a classic example of this.

Ostrom goes on to cite findings that “large-scale government irrigation systems do not tend to perform at the same level as smaller-scale, farmer-managed systems,” and “in terms of cropping intensity and agricultural yield, crudely constructed irrigation systems using mud, rock, timber, and sticks significantly outperform systems built with modern concrete and iron headworks operated by national agencies.”⁴⁴

The situational knowledge of participants is key to governing complex adaptive systems. And because the total number of possible components of a policy is too great for a decision-maker to consider all possible combinations of them, the most successful approach to decision-making is often to select from a number of possible combinations based on intuition and past performance—combined with the ability of those in contact with the situation to quickly tweak and adjust in the face of immediate feedback. Ostrom uses the example of aircraft design.

For far too long, social scientists have viewed the physics of static, simple systems as the model of science we should try to emulate. Those who want to emulate the science of static, simple systems are grossly out-of-date when it comes to understanding contemporary science and particularly contemporary engineering. The engineers responsible for the design of airplanes and bridges—and now computers—have long coped with complex dynamic systems. The Boeing 777, for example, has 150,000 distinct subsystems that are composed, in some instances, of highly complex components.

Design engineers of complex systems long ago gave up hope of even doing complete analyses of all combinations of subsystems under all combinations of external environmental conditions. Obviously, they invest heavily in trying out diverse design elements under a variety of conditions. Testing designs by building models, using wind tunnels and computer simulations, increases the likelihood that engineers can produce a viable combination of design elements that are robust under many conditions. They also invest in complex backup systems that

⁴⁴ Ostrom, *Understanding Institutional Diversity*, p. 222.

enable these designed systems to achieve a high degree of robustness—meaning the capacity to maintain some desired system characteristics under changing circumstances. All such robust systems are, however, fragile to a variety of small perturbations.... Small, rare disturbances can cause a disastrous cascade of failure in any highly complex designed system.

Instead of assuming that designing rules that approach optimality, or even improve performance, is a relatively simple analytical task that can be undertaken by distant, objective analysts, we need to understand the policy design process as involving an effort to tinker with a large number of component parts.... Those who tinker with any tools—including rules—are trying to find combinations that work together more effectively than other combinations. Policy changes are experiments based on more or less informed expectations about potential outcomes.... Whenever individuals decide to add a rule, change a rule, or adopt someone else's proposed rule set, they are conducting a policy experiment. Further, the complexity of the ever-changing biophysical and socioeconomic world combined with the complexity of rule systems means that any proposed rule change faces a nontrivial probability of error.⁴⁵

Ostrom then describes a viable approach to formulating governance rules for common pool resources, based on the engineering analogy:

Officials and/or the appropriators themselves may try to improve performance by changing one or more rules in an adaptive process. Participants adapt the rules, norms, and strategies of their parents and elders as well as those who are viewed as highly successful in a particular culture. They learn about neighboring systems that work better than theirs and try to discern which rules are helping their neighbors to do better. Human agents try to use reason and persuasion in their efforts to devise better rules, but the process of choice from the vast array of rules they might use always involves experimentation. Self-organized resource governance systems use many types of decision rules to make collective choices ranging from deferring to the judgment of one

⁴⁵ *Ibid.*, pp. 242-243.

person or elders to using majority voting to relying on unanimity.⁴⁶

And she lists variables that increase the likelihood of appropriators successfully improving governance rules in the face of experience:

Attributes of the Resource

R1. Feasible improvement: Resource conditions are not at a point of deterioration such that it is useless to organize or so underutilized that little advantage results from organizing.

R2. Indicators: Reliable and valid indicators of the condition of the resource system are frequently available at a relatively low cost.

R3. Predictability: The flow of resource units is relatively predictable.

R4. Spatial extent: The resource system is sufficiently small, given the transportation and communication technology in use, that appropriators can develop accurate knowledge of external boundaries and internal micro-environments.

Attributes of the Appropriators

A1. Salience: Appropriators depend on the resource system for a major portion of their livelihood or the achievement of important social or religious values.

A2. Common understanding: Appropriators have a shared image of how the resource system operates (attributes R1, 2, 3, and 4 above) and how their actions affect each other and the resource system.

A3. Low discount rate: Appropriators use a sufficiently low discount rate in relation to future benefits to be achieved from the resource.

A4. Trust and reciprocity: Appropriators trust one another to keep promises and relate to one another with reciprocity.

A5. Autonomy: Appropriators are able to determine access and harvesting rules without external authorities countermanding them.

⁴⁶ *Ibid*, p. 244.

A6. Prior organizational experience and local leadership: Appropriators have learned at least minimal skills of organization and leadership through participation in other local associations or learning about ways that neighboring groups have organized.⁴⁷

Of course these are all attributes that are facilitated by Ostrom's third design principle for common-pool resource governance from *Governing the Commons*: "collective-choice arrangements."

The third design principle is that most of the individuals affected by a resource regime are authorized to participate in making and modifying their rules. Resource regimes that use this principle are both better able to tailor rules to local circumstances and to devise rules that are considered fair by participants. As environments change over time, being able to craft local rules is particularly important as officials located far away do not know of the change. When a local elite is empowered at the collective-choice level, policies that primarily benefit them can be expected...

In a study of forty-eight irrigation systems in India, Bardhan (2000) finds that the quality of maintenance of irrigation canals is significantly lower on those systems where farmers perceive the rules to have been made by a local elite. On the other hand, those farmers (of the 480 inter-viewed) who responded that the rules for their system have been crafted by most of the farmers, as contrasted to the elite or the government, have a more positive attitude about the water allocation rules and the rule compliance of other farmers. Further, in all of the villages where a government agency decides how water is to be allocated and distributed, frequent rule violations are reported, and farmers tend to contribute less to the local village fund. Consistent with this is the finding by Ray and Williams (1999) that the dead weight loss from upstream farmers stealing water on government-owned irrigation systems in Maharashtra, India, approaches one-fourth of the revenues that could be earned in an efficient water allocation and pricing regime.

⁴⁷ *Ibid.*, pp. 244-245.

Knox and Meinzen-Dick (2001, 22) note that property rights “are significantly more likely to address the interests and needs of local people when they are not imposed from the outside but rather are based on existing rights and reflect local values and norms.” As they point out, these rules take time and effort to develop, try out, modify, and then experiment with again. Users who have been engaged in this process for some time understand the rules that they have crafted, agree on why they are using one rule rather than another, and tend to follow their own rules to a greater extent than those that are imposed on them. Sekher (2000) conducted a study of villages in Orissa, India, that varied in regard to the extent of participation of local villagers in making rules related to nearby forests that they used. He found that the “wider the representation of the community in the organization, the better are its chances of securing local cooperation and rule confirmation for managing and preserving the resource”....

In a comparative study of farmer-designed and governed irrigation systems (FMIS), as contrasted to those designed and operated by engineers without involvement of the farmers in making rules to govern these systems, Shukla (2002, 83), a water engineer himself, is relatively critical of the “unrealistic planning and design, incomplete development, a non-systematic and inadequate maintenance program, deficit operation, and lack of participation of the users that characterized many of these systems in Nepal. Drawing on the earlier research of Pant and Lohani (1983), Yoder (1994), Lam (1998), and Pradhan (1989), Shukla identifies the following as the strengths of the farmer-designed systems: “(1) Their technical deficiencies are compensated by management inputs; (2) they are low cost and based on local resources; (3) effective irrigation organizations exist in most FMIS; (4) most FMIS have well-defined rules and roles for water allocation, distribution, resource mobilization, and conflict resolution; and (5) the leaders of these systems are accountable to the users....⁴⁸

⁴⁸ *Ibid.*, pp. 263-265.

Conversely, they are undermined by state policies that promote—as we considered in the previous section—centralization, social atomization and anonymity.

Ostrom argues that central government policy regimes are relevant mainly to the extent to which they facilitate or hinder the primary local efforts to formulate governance rules. The best central government approach is simply to provide information and a supportive atmosphere without active interference. She puts forth, as an ideal case, the U.S. Geological Survey:

Let me use the example of the important role that the U.S. Geological Survey has played in the development of more effective local groundwater institutions in some parts of the United States. What is important to stress is that the Geological Survey does not construct engineering works or do anything other than obtain and disseminate accurate information about hydrologic and geologic structures within the United States. When a local set of water users wants to obtain better information about a local groundwater basin, they can contract with the Geological Survey to conduct an intensive study in their area. Water producers would pay a portion of the cost of such a survey. The Geological Survey would pay the other portion. The information contained in such a survey is then public information available to all interested parties. The Geological Survey employs a highly professional staff who rely on the most recent scientific techniques for determining the structure and condition of groundwater basins. Local water producers obtain the very best available information from an agency that is not trying to push any particular future project that the agency is interested in conducting.⁴⁹

The interesting thing is that this function—providing an information commons—is about as close as any government function can come to the non-coercive “administration of things.” In considering how the same function might be provided by institutions altogether outside the state framework, networked/crowdsourced models like amateur astronomy may be relevant.

In any case, the concrete knowledge advantages Ostrom lists for local governance by common-pool resource users are things both Friedrich Hayek and James Scott would recognize:

49 *Ibid.*, pp. 278-279.

Local knowledge. Appropriators who have lived and appropriated from a resource system over a long period of time have developed relatively accurate mental models of how the biophysical system itself operates, since the very success of their appropriation efforts depends on such knowledge. They also know others living in the area well and what norms of behavior are considered appropriate.

Inclusion of trustworthy participants. Appropriators can devise rules that increase the probability that others are trustworthy and will use reciprocity. This lowers the cost of relying entirely on formal sanctions and paying for extensive guarding.

Reliance on disaggregated knowledge. Feedback about how the resource system responds to changes in actions of appropriators is provided in a disaggregated way. Fishers are quite aware, for example, if the size and species distribution of their catch is changing over time. Irrigators learn whether a particular rotation system allows most farmers to grow the crops they most prefer by examining the resulting productivity of specific fields.

Better adapted rules. Given the above, appropriators are more likely to craft rules over time that are better adapted to each of the local common-pool resources than any general system of rules.

Lower enforcement costs. Since local appropriators have to bear the cost of monitoring, they are apt to craft rules that make infractions highly obvious so that monitoring costs are lower. Further, by creating rules that are seen as legitimate, rule conformance will tend to be higher.

Parallel autonomous systems. The probability of failure throughout a large region is greatly reduced by the establishment of parallel systems of rule making, interpretation, and enforcement.⁵⁰

Aside from cognitive issues, one reason systems imposed from outside by central authorities are so failure-prone is they're perceived as illegitimate. As Ostrom notes:

If individuals voluntarily participate in a situation, they must share some general sense that most of the rules governing the situation is appropriate. Otherwise, the cost of enforcement within

⁵⁰ *Ibid.*, pp. 281-282.

voluntary activities becomes high enough that it is difficult, if not impossible, to maintain predictability in an ongoing voluntary activity.⁵¹

People are instinctively alienated by rules-systems in which they feel powerless, and question the legitimacy of rules imposed by an authority over whom they have no control.

psychological research provides evidence that positive intrinsic motivation is increased when individuals feel that their own self-determination or self-esteem is enhanced.... This leads to the possibility that intrinsic motivation can be “crowded out” in situations where individuals do not perceive themselves to have sufficient self-control over the actions they take.⁵²

Ostrom goes on to cite a number of experiments providing “strong evidence for the crowding out of reciprocity by the imposition of external sanctions,” quoting the findings of one that:

1. External interventions *crowd out* intrinsic motivation if the individuals affected perceive them to be *controlling*. In that case, both self-determination and self-esteem suffer, and the individuals react by reducing their intrinsic motivation in the activity controlled.
2. External interventions *crowd in* intrinsic motivation if the individuals concerned perceive it as *supportive*. In that case, self-esteem is fostered, and the individuals feel that they are given more freedom to act, which enlarges self-determination.⁵³

This is closely associated with the tendency of external imposed rules to “‘crowd out’ endogenous cooperative behavior.” In one experiment, players of a Prisoner's game on whom external incentives for cooperation were imposed were less cooperative after the incentives were withdrawn than were the players in a control group who played the regular game without incentives for cooperation and spontaneously evolved their own strategies.⁵⁴

a social norm, especially in a setting where there is communication between parties, can work as well or nearly as well at generating cooperative behavior as an externally imposed set of rules and system of monitoring and sanctioning. Moreover, norms seem to have a certain staying power in encouraging a

51 *Ibid.*, p. 21.

52 *Ibid.*, p. 112.

53 *Ibid.*, pp. 112-113.

54 *Ibid.*, p. 130.

growth of the desire for cooperative behavior over time, while cooperation that is primarily there due to externally imposed and enforced rules can disappear very quickly.⁵⁵

Third World Development and Infrastructure Policy and the Missing Class Dimension. It's hard to know how much of the argument of *Institutional Incentives and Sustainable Development*⁵⁶ to assign to Ostrom, given it's coauthored with two other people. But considering her name appears first on the byline, and it's a direct development of her approach in *Governing the Commons*, I think it's safe to treat it as speaking largely with her voice.

Ostrom is great, in her analysis of Third World development policy—and more specifically of infrastructure projects—at treating the way multilateral development agencies and national governments tend to adopt James Scott's “authoritarian high modernist” approach, and ignore local, distributed knowledge. Western development experts, for the most part, saw local social infrastructures in Third World countries as atavistic, and conflated them with tribalism, corruption, nepotism, inequality and authoritarianism.

When massive amounts of physical capital were introduced by donor countries into the countries of Africa, Asia, and Latin America, that had been through long periods of colonization, little attention was paid to the massive destruction of social capital that had occurred under colonization. Tribal communities in India, for example, had organized themselves for centuries to derive their food, fodder, tools, and building materials in a sustainable manner from forest lands that they governed and managed as common property. The British government did not recognize community ownership and, in fact, passed legislation during the 1860s to create a forestry department and to exert monopoly power over ever greater territories.... By the time of independence, the government of India exerted full control over more than 40 percent of the total forested area of India. Similar stripping away of the legitimacy of local institutions occurred throughout Africa, Asia, and Latin America.

To the extent that attention was paid to the earlier social capital of the people living in these areas, it was assumed that the

⁵⁵ *Ibid.*, p. 130.

⁵⁶ Elinor Ostrom, Larry Schroeder and Susan Wynne. *Institutional Incentives and Sustainable Development: Infrastructure Policies in Perspective* (Boulder, San Francisco, Oxford: Westview Press, 1993).

former patterns of relationships were "primitive" and not worth saving. Many colonial and postcolonial officials felt that prior institutions had to be destroyed before development could really occur. The diversity of different ways of life was seen as an obstacle to be replaced by modern, centralized institutions that could energize economic activity from the capital.⁵⁷

Instead, ...donors from the Eastern and Western blocs proceeded, or as was the case with the former imperial powers, continued to support the destruction of indigenous institutional infrastructure in LDCs and the replacement of this social infrastructure with institutional arrangements that were familiar to the donors. They found willing accomplices in the new national leaders of LDCs who hoped to suppress any organizational activity outside their control in order to prevent the emergence of viable political competitors....

The one institutional feature of LDCs that all donors found potentially useful as a foundation for development was the highly centralized national governments, which were primarily the legacy of the colonial period. National governments were viewed as the instruments through which change and economic development would be accomplished. They were considered so crucial, in fact, that development efforts were specially fashioned, for most of the past half century, to enhance the capacity and authority of these national governments at the expense of subnational public agencies and private sector institutions. In the most recent "structural adjustment" phase, this tendency to reinforce national institutions has been accelerated. Major policy reforms have been devised by small teams composed almost exclusively of representatives from ministries of finance and central banks working with consultants engaged by the World Bank and IMF.⁵⁸

Ostrom produces considerable evidence from case studies to show that infrastructure projects undertaken in such an atmosphere of disregard for local knowledge tend to have less than optimal results—a finding that should come as no surprise to readers of her larger body of work.

Ostrom is quite right in assuming that "Individuals, who are expected to invest resources... in sustaining rural infrastructure, must perceive that the benefits

⁵⁷ Ostrom, "Neither Market nor State," pp. 21-22.

⁵⁸ Ostrom et al, *Institutional Incentives and Sustainable Development*, pp. 6-7.

they obtain... exceed the costs of the resources they devote to this effort.”⁵⁹ And she addresses problems of rent-seeking, in which projects are promoted by interests that get more out of them than they put in.

But she considers rent-seeking mainly at the micro-level, rather than treating rent-seeking as built into the macro-structure of the system and central to its goals. Even the one time she specifically mentions rent-seeking in the case of infrastructure projects that generate “disproportionate benefits” for “certain groups of potential users, such as large landowners,”⁶⁰ she treats it as just a deviation to be fixed by technical jiggering with the incentive structure.

The glaring omission in all this, the elephant in the living room she fails to mention, is class conflict and the role of states in promoting the interests of the economic classes that control them.

Modern societies do indeed, as Ivan Illich pointed out in *Tools for Conviviality*, adopt particular forms of technology and organization beyond the point of counterproductivity or diminishing returns. But they only do so because the coercive state, by creating externalities, shifts the costs and burdens of adoption to a different class of people from those who receive the benefits. Since the full cost of adoption of a technology does not appear on the ledger of its adopters, their decision of how far to adopt it is not based on a full social accounting of the costs and benefits. The market price of adopting the technology, which informs the adopter of the full costs and benefits and enables her to make a rational decision, is disrupted.

Ostrom adopts the World Bank's metric for “sustainability” of infrastructure projects: “whether or not the rate of return was equal to, or greater than, the current opportunity cost of the capital invested in each project.” The project, in other words, pays in what its output adds to the GDP.⁶¹ This ignores the central question—as Lenin phrased it—of “Kto-kogo?” Who pays for the inputs, and who benefits from the outputs?

The issue is not simply that centralized development agencies, because of knowledge problems resulting from their centralism, make mistakes in pursuing some disinterested goal of “development.” The issue is also that the kind of development they're pursuing reflects a particular coalition of interests and their perception of the world. These interests, and their perceptions, are those commonly associated with the terms “export-oriented development” and “neoliberalism.”

⁵⁹ *Ibid.*, p. 9.

⁶⁰ *Ibid.*, p. 96.

⁶¹ *Ibid.*, pp. 14-16.

The larger functional role of the World Bank, IMF and Western national foreign aid projects since WWII was well summed up by Kwame Nkrumah in *Neo-Colonialism*: foreign aid, under neo-colonialism, is what under colonialism used to be called simply “foreign capital investment.” [Material from MPE Ch. 8 on infrastructure]

In the specific case of Third World rural infrastructure, the dominant model of rural development centers on large-scale, export-oriented cash crop production on large tracts of land—often situated on land stolen from evicted peasants with the help of colonial or post-colonial governments—held by native landed oligarchs.

So in a sense the attention Ostrom devotes to free-riders in the design of local infrastructure systems is misleading; free-riding, or rent-seeking, is the primary purpose of big most large-scale rural infrastructure projects like irrigation systems. Their purpose is to provide subsidized inputs to a model of agricultural production heavily dependent on such subsidized inputs, on stolen land held by local landed elites.

She discusses “equity” in financing infrastructure in the context of two rival approaches: 1) beneficiaries pay in proportion to the marginal cost of supplying the portion of output they consume; and 2) beneficiaries pay in proportion to their ability to pay.⁶² But from the perspective of the powerful economic interests served by big infrastructure projects, either approach would violate the whole purpose: to externalize their operating costs on someone else.

Stepping back still further, capitalism by definition depends on the inequitable shifting of benefits and costs to different parties. Capitalism has been defined by more than one radical critic as the socialization of cost and risk and the privatization of profit.

Sadly, Ostrom (and/or one or both of her coauthors) dismiss such considerations as “conspiracy theories.” “At times, the criticism presumes conspiratorial motivation, with donor agencies characterized as fronts for a new form of conscious imperialism.”⁶³

But anyone who has observed infrastructure projects in operation is struck by the number of extremely hard-working, highly motivated individuals in both the host governments and the donor agencies whose principal goal is clearly to improve the well-being of those living in countries receiving foreign aid. Yet,

⁶² *Ibid.*, pp. 113-115.

⁶³ *Ibid.*, p. 156.

realistic assessments of the many projects designed by donor and host government staff repeatedly reveal unintended negative outcomes. Evaluations show that the projects have increased or reinforced the overcentralization of recipient countries' governments, were poorly designed (given local circumstances), and generated inappropriately large debt burdens for the recipient countries. How is it possible for highly motivated, hard-working people who sincerely want to improve conditions in these recipient countries to be repeatedly involved in the design and implementation of projects that do not accomplish this goal? ⁶⁴

Ostrom points to several quite plausible structural factors, some of them which would cause readers of James Scott's work to smile and nod. The U.S. Congressional mandate to spend a certain portion of foreign aid on purchases of American-made equipment create, to some extent, a structural bias in favor of projects involving heavy equipment.⁶⁵ The fiscal incentives all government agencies face, of spending this year's entire budget by the end of the year in order to secure the same levels of funding next year, creates a bias toward a smaller number of expensive projects that can be processed quickly by a limited staff.⁶⁶ And the need for what Scott would call "legibility" results, given political pressure to reduce embarrassing levels of skimming off the top by local officials in recipient countries, in a focus on large-scale projects for the sake of reduced monitoring costs.⁶⁷

The problem is that Ostrom posits all these entirely valid and plausible factors as an alternative to "conspiracy theories." One doesn't have to visualize World Bank policy wonks literally twirling their mustaches like Snidely Whiplash, or saying with Milton's Lucifer "Evil be thou my good," in order to see them as actively and enthusiastically serving the interests of global corporate capital. Sincerely promoting some vision of the "general welfare," as they see it, is perfectly compatible with having internalized an ideology in which the present system is natural and inevitable, and the only feasible alternative for organizing human society.

And the neoliberal institutions that coordinate foreign aid are guided by an ideology in which the most efficient model of development—indeed, the only one conceivable by right-thinking people—is large-scale capital-intensive industry and large-scale, mechanized, chemical-intensive, export-oriented agriculture.

⁶⁴ *Ibid.*, pp. 156-157.

⁶⁵ *Ibid.*, p. 157.

⁶⁶ *Ibid.*, p. 157.

⁶⁷ *Ibid.*, p. 159.

We're All Humans Here. In all her work, Ostrom never lost sight of one central truth: collective institutions, whether they're called governments, corporations, or commons, are all framed from the same crooked human timber. Advocates of government activity and critics/skeptics of anarchism, all too often, simply assume a level of omniscience on the part of the state that's denied to the state, or handwave away the actual problem of detecting and punishing infractions. For example, those who are skeptical about anarchism ask the supposedly telling question of how a stateless society would prevent something like the Deepwater Horizons oil spill—without stopping to consider whether the EPA and its regulations in our actual statist society managed to prevent it.

Giving an official name to the collectivity does nothing to alter the fact that it's just a bunch of human beings doing stuff together. And they don't cease to be fallible, limited in perspective, and influenced by self-interest just because they have official titles or claim to be working in the name of the public or the shareholders.

Obviously, I do not know if these appropriators reached optimal solutions to their problems. I strongly doubt it. They solved their problems the same way that most individuals solve difficult and complex problems: as well as they were able, given the problems involved, the information they had, the tools they had to work with, the costs of various known options, and the resources at hand.⁶⁸

Resource users are explicitly thought of [in mainstream conservation policy literature] as rational agents who plunder local resources so as to maximize their own short-term benefits. Government officials are implicitly depicted, on the other hand, as seeking the more general public interest, having the relevant information at hand, and the capability of designing optimal policies....

One should not, however, presume that all government officials are “saints” while assuming that all resource users are “sinners.” Nor should we presume that officials have all the relevant knowledge to manage complex dynamic systems while local appropriators are ignorant. The knowledge base of government officials may not, in reality, be better than that of local

68 Ostrom, *Governing the Commons*, p. 56.

appropriators who have used a particular resource for years and know its characteristics in considerable detail. Even when the knowledge base is similar, no guarantee exists that government officials (or the researchers who advise them) will use available information to make efficient and/or sustainable decisions.⁶⁹

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⁶⁹ Ostrom, *Understanding Institutional Diversity*, p. 238.

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