



## The Costs of Cooperation

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**Abstract.** Public goods production is not necessarily desirable and involves higher costs than is often recognized. Specifically, public goods production may require that a small minority of individuals can collude at the expense of others or impose strategic sanctions on non-contributors. These facilities may have negative as well as positive effects. The same conditions that support public goods production also support business cartels and racial discrimination, for instance. We examine the implications of this perspective for modern debates on economic policy, civic virtue, communitarianism, and libertarianism.

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### 1. Introduction

Economists, philosophers, sociologists, political scientists, and other social scientists typically treat cooperation as desirable. Cooperation increases the output of goods and services and allows individuals to achieve collective ends.

The most formal treatment of the benefits of cooperation is found in the theory of public goods, which we take as our foil. Cooperation, if successful, allows individuals to produce a public good at optimal or near-optimal levels. The value of public goods, by definition, exceeds their social costs of production. Underproduction of the public good indicates institutional failure and increased production of the good indicates institutional success. This logic was stated by David Hume and Adam Smith, and plays a significant role in economics, political science, sociology, and other social sciences.

Belief in the benefits of cooperation also underlies complaints about the decline of community, a specific example of a public good. Drawing on Emile Durkheim, some commentators associate modernity with an increase in “anomie” and a lack of cooperative endeavors. Other commentators point to a decline of values in America, and claim that in previous eras neighborhoods were more cohesive, social norms were more effective, the work ethic was stronger, and Americans showed greater willingness to pitch in for the common good. Robert Putnam (1995), in his well-known study “Bowling Alone,” notes the modern desire of Americans to bowl alone, rather than in leagues; he associates this development with loss of community. We use the phrase “cooperative efficacy”

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to describe the values characterized by these arguments and by the theory of public goods.<sup>1</sup>

We develop a “rules of the game” perspective on cooperation and public goods production and consider whether public goods theory treats all relevant costs of cooperative efficacy. Rather than asking whether more cooperation is desirable in a particular instance, we examine the costs and benefits of increased cooperative efficacy in general.

We focus on the link between an increased ability to produce public goods and an increased ability of some individuals to produce public bads. The same cooperative techniques which allow individuals to produce public goods also allow some individuals to combine and pursue their self-interest at the expense of others. By treating the beneficial and adverse consequences of cooperation separately, the extant literature overestimates the benefits of cooperative efficacy; in some cases increased cooperative efficacy brings net costs.<sup>2</sup>

Examples of the costs of public goods production abound. The same mechanisms which support public goods production also lead to ostracism of minorities, discrimination on the basis of race, ethnicity, and gender, restrictive social norms, and collusive industrial practices. We use the term public bads to refer to collective products or outcomes which involve costs in excess of their benefits; such outcomes are public goods for some small, cohesive group but not for the broader society.

The public choice revolution of the 1960s and 1970s brought social science closer to a rules-based perspective on social and economic policy. Social scientists no longer stop at asking: should a government agent do X? Rather, we also ask: should a government agent have the discretion to choose between X and Y, or should the choice be governed by a rule or a more general set of principles? We apply analogous questions to public goods production (see Sutter 1994). Rather than merely asking, “should society produce more public goods?,” we also ask “should we increase the degree of cooperative efficacy?” The call for additional public goods production, with no further negative ramifications or consequences, does not represent a feasible option.

Our arguments have several parallels in the literature, but no single source treats our theme in detail. Economists have analyzed the costs of industrial collusion and racial discrimination without tying these topics to broader issues of public goods production. Several writers on norms and cooperation (e.g., Schelling 1984:211, Axelrod 1984, Gambetta 1988) note that cooperation has costs as well as benefits, but they do not give the theme a sustained treatment or bring out the implications developed here. James Coleman (1990: chap. 10) discusses “disjoint norms,” which do not benefit all individuals. Olson (1965) suggests that public goods suppliers will reap private monopolistic rents, typically at the expense of others. Kuran (1995) demonstrates that cooperation may result in excess conformity. Gellner (1988), drawing upon the work of Ibn Khaldun, argues that the preconditions of trust and cooperation—often an economically poor society with underdeveloped formal law—may be undesirable. Going back in the history of ideas, a variety of Enlightenment thinkers recognized the costs of what we call cooperative efficacy. Montesquieu (1974, Book XX: 316–317 [1748]), for instance, believed that commercial societies typically showed less hospitality than vagabond societies. Bernard Mandeville (1988: vol. I: 245–247) recognized the cooperative discipline of Spartan society, but he claimed that the same emphasis on order took the fun out of Spartan life. Alexis de Tocqueville (1966 [1835])

stressed the link between American cooperativeness and American conformity. We attempt to extend these insights into a more systematic treatment, using the organizing framework of modern public goods theory.<sup>3</sup>

## 2. The costs of cooperative efficacy

A public good for a small group may be a public bad for the larger community, as illustrated by the example of monopolistic cartels. In the absence of legal constraint, firms in an industry often attempt to fix prices. Maintenance of such cartels requires cooperation from cartel members. Each cartel member prefers that the *other* cartel members adhere to the higher price, while he or she captures the market by selling at a slightly lower price. Without ongoing cooperation, cartels tend to collapse from price-shading behavior and violations of the basic agreement. A stable cartel requires some means of punishing firms that deviate from the agreement; in other words, the cartel must produce a local public good for itself. An effective cartel thus is a public good for member firms but a public bad for the broader community. Stronger cooperative efficacy would bring greater cartelization.<sup>4</sup>

Discrimination illustrates a similar logic. Dominant racial, religious, or ethnic groups may reap pecuniary benefits from treating minorities differently. If whites can discriminate successfully against blacks, they will lower the relative wages of blacks and shift the terms of trade in their favor (Becker 1957). Discrimination, however, is a public good for the dominant group and does not pay for any single employer. When black wages are held below marginal product, each employer will seek to hire black labor, pushing black wages back up. Black wages will remain artificially low only if employers can cooperate on a collusive outcome.<sup>5</sup>

These two examples—cartelization and discrimination—share a common thread. Greater cooperation allows group members to impose external costs on non-group members.

Under a second mechanism, some members of *the cooperating group* are made worse off by greater cooperative efficacy. The costs are imposed on members of an interacting group, rather than on outsiders.

This mechanism arises when leaders of a cohesive group induce cooperation through selective incentives. Group leaders, for instance, may commit to ostracize or otherwise penalize non-cooperators who do not keep orderly front lawns. These contingent externalities may harm the welfare of some group members, especially those who do not value collectively clean lawns. The threat of ostracism may make some group members worse off than if no selective incentives existed. The victimized group members must either contribute to an outcome which they do not favor or suffer the net cost of ostracism; even the better of those alternatives may be worse than having been left alone. Selective incentives succeed only because one group of individuals—the leaders of the cohesive group—can change the payoffs of the others. Yet to the extent that these incentives influence behavior, they can be used to induce contributions to both public bads and public goods. The smaller, cohesive group which controls the selective incentives will pursue its own interests rather than the interests of the larger group.

Note the difference between the cartel and discrimination examples and selective incentives. In the former cases, the outsiders are worse off because they cannot combine as

effectively as the cohesive insiders can. The discriminators or cartelists need not manipulate the behavior of the victims, as they can simply withhold resources from them. In the latter case of selective incentives, the victims are worse off because they *can* transact with insiders. The relations among insiders give rise to manipulative penalties and threats, which put some individuals at a lower level of utility. If the victims could somehow precommit to ignoring the threat, or not dealing with the leaders, they would be better off.<sup>6</sup>

In a third case the negative externalities are an unintended consequence, rather than being imposed by a dominant inside group. A community, for instance, might set out to monitor criminal activity in the neighborhood. The community would hire sentries, institute block patrols, etc. As a by-product, those same actions might decrease privacy for some community members. The group leaders who organize the added security are not trying to manipulate the behavior of community members, but they may impose negative externalities nonetheless.

Cooperation brings unintended negative byproducts in a wide variety of cases. While tightly-knit societies have greater propensities to cooperate, this cohesion brings costs. Cooperative societies frequently exhibit lower levels of innovation and risk-taking, less diversity, more conformism, less entrepreneurship, and lower levels of individual fulfillment. The same forces that support cooperation also give the collective a high degree of influence over individual behavior. This theme has been echoed by critics of Japanese society, or defenders of the loosening of American morals which occurred in the 1960s, for instance.<sup>7</sup>

### *2.1. Cooperative efficacy in government*

Cooperative efficacy can bring negative consequences in the public sector as well. Cohesive groups often use government to impose negative externalities on other members of society. Ethnic groups may pursue racial discrimination using the coercive powers of the state, as under Jim Crow laws in the South and apartheid in South Africa. Cohesive groups also form effective lobbies and use government to receive transfers from other members of society (Olson 1965, 1982).

Economists typically associate governments with coercive solutions to public goods problems. But government activity itself requires the voluntary production of public goods. Agents in governments must overcome collective action problems to achieve their ends. Citizens and government employees must cooperate voluntarily with government pronouncements. Tax systems rely on perceptions of government legitimacy to limit cheating and induce payment. The bureaucrats who enforce government regulations must believe that the regulations are beneficial or at least reasonable. Only easily monitored contributions to public goods production can be supplied through government coercion. Conscription can fill the ranks of an army, but inducing the conscripts to fight hard requires voluntary compliance. A government which does not receive significant voluntary contributions will be extremely weak.<sup>8</sup>

Citizen cooperation decreases the cost of supplying public goods through government, but it also decreases the cost of supplying abuse through government. Tyrants rely heavily on selective incentives to induce citizens to cooperate and organize on behalf of the regime,

even when direct physical coercion is not present. The Nazi Holocaust against the Jews required social cohesion from German troops and citizens (Browning 1992). Stalinist totalitarianism received widespread voluntary support from many Russian citizens, even before World War II. Citizens received social status and favors if they gave the regime their approval, time, and support. To a large extent these mechanisms relied on subtle social pressures rather than coercion (Thurston 1996). Even democracies provide many examples where one group of individuals organizes to impose costs on another through government, such as when Ku Klux Klan members commandeered southern local governments to fight the civil rights revolution.

Finally, cooperative efficacy may increase political instability. The so-called “paradox of revolution” has been analyzed by Tullock (1971), Lichbach (1995), and others. Public goods problems among revolutionaries typically limit the scope of revolutionary activity. Each revolutionary sympathizer reaps benefits from a change in government, but the active revolutionaries risk prison or death. Underprovision of revolutionary activity results, relative to the preferences of the rebels. From the point of view of society at large, both beneficial and harmful revolutions will be checked. If small groups could organize easily, political life might not be stable or have any core; any conceivable government could be brought down by some revolutionary group or another. Lichbach (1995:xii) remarks: “Social order in a state results from social disorder in dissident groups.”

## 2.2. *Mixed and pure mechanisms*

Cooperative efficacy relates only to the ability of a community to engage in collective action; the selection of projects to pursue is a separate question. In practice, community leaders (in the private sector) and government officials (in the public sector) perform the selection function. Community leaders and public officials will choose projects to suit their own interests; these projects may be welfare-enhancing public goods or welfare-decreasing public bads.<sup>9</sup> Consequently, cooperative efficacy does not provide an effective filter or selection mechanism. Cooperative efficacy is a “mixed” mechanism for providing public goods, in contrast to a “pure” mechanism which would provide only genuine public goods.

To illustrate this contrast, consider how a “pure” mechanism would have to operate to rule out the production of public bads. A pure good mechanism might operate, for instance, if individuals produced public goods out of altruistic motives, as we sometimes find in philanthropy. An increase in the strength of this mechanism would not occasion additional production of public bads. Altruistic group leaders would not impose negative externalities on other individuals unless the social benefits exceeded the social cost.

The combination of perfect markets and zero transactions costs, however unrealistic an assumption, provides another example of a pure mechanism. Sufficiently complex and universal contracts could take the interests of all individuals into account. Again, lower transactions costs for these all-embracing contracts would not bring an increased ability to produce public bads.

As these hypothetical examples indicate, pure good mechanisms are the exception rather than the rule. In practice, most public goods production, insofar as it succeeds at all, proceeds through mixed mechanisms. The perfect markets scenario is far from realistic. Many cases

of ostensible altruism in fact involve mixed motives and the desire to receive private goods through public contributions. When individuals volunteer to run a local charity, or to donate money to the symphony, they often hope to convert their position into status, influence, and privilege, often at the expense of others or at the expense of social values.

Solutions to intragovernmental collective action problems also usually rely on mixed rather than pure mechanisms for producing public goods. Governmental agents rarely have recourse to the all-embracing contracts that characterize the pure good mechanism. Instead, provision of intragovernmental public goods usually relies on sanctions, norms, threats, etc.—all fundamental characteristics of mixed mechanisms.

The distinction between mixed and pure mechanisms implies that not all methods of public goods production are of equal value. Pure mechanisms for public goods production, based on altruism or all-embracing contracts, bring greater relative benefits than previous analyses have suggested, at least compared to mixed mechanisms based on norms and sanctions. Although pure mechanisms are limited in their applicability, as discussed above, they avoid the costs of cooperative efficacy. The analysis therefore suggests that we should devote more attention to improving the contracting process, or to increasing the prevalence and strength of altruistic feelings, and less attention to worrying about the weakening of social norms and sanctions.

Note also that the mechanism for selecting public projects interacts with optimal cooperation. For instance, the optimal level of cooperative efficacy is higher when leaders are altruistic rather than self-seeking. Conversely, low levels of cooperative efficacy may affect the quality of leaders. Racist leaders, for instance, may opt to remain members of the community if a low level of cooperative efficacy would thwart their plans for discrimination. Alternatively, a higher level of cooperative efficacy could allow potential rebels to overcome their collective action problems and institute a regime (and hence selection mechanism) change.

### 3. Efficiency implications

Societies do not necessarily reach optimal levels of cooperative efficacy. An increase in cooperative efficacy expands the menu of projects group leaders can undertake, but as we already have seen, the expanded set of projects includes both public goods and public bads. Whether an increase in cooperative efficacy is beneficial depends on the proportion of goods and bads on the margin and the selection mechanism.

An optimal amount of cooperative efficiency equates the marginal benefits and costs of greater cooperation. In this extreme case we cannot label the failure to produce a public good as either a market or governmental failure. Rather, societal members have chosen their preferred degree of cooperative efficacy to maximize net benefits. Failure to produce a single public good represents part of the broader (optimal) package, and does not involve a net cost, all things considered. The conditions needed to support additional public goods production would involve costs higher than their benefits.

More generally, collectivities cannot choose their degree of cooperative efficacy. As a result, the social level of cooperative efficacy may be either too high or too low. At least three forces prevent an optimum from holding. First, individuals seek to bring about

degrees of cooperative efficacy that favor their private interests, rather than social welfare. Second, the efforts of differing individuals may combine to produce results that not one of them intended. Third, individuals may be stuck at a local rather than global equilibrium.<sup>10</sup>

Although global optimality is unlikely to attain, some rough pressures do regulate the degree of cooperative efficacy. Individuals adjust their behavior when they do not approve of the prevailing degree of cooperative efficacy. Individuals who favor greater cooperative efficacy, for instance, will more likely live in the countryside than in the city; individuals who favor less cooperative efficacy will more likely live in the city. Urban-rural migrations will shift the prevailing mores in society, and move them closer to preferred levels. Similarly, individuals choose friends and join circles which promote the values they favor. Potential cooperators, if they so wish, can invest more resources in seeking out other cooperators; the overall degree of cooperative efficacy will increase as a result.

These processes of mobility place natural brakes on how far the mores of a society can deviate from the preferences of societal members. If a society becomes too constricting in its morality, individuals will withdraw from social activity; if society at large becomes too loose, individuals will spend more time with their families or spend more time in other circles with tighter or more cooperative values. Norms remain in a neighborhood where increases in the degree of cooperative efficacy involve both significant costs and significant benefits. Ideally some norms should be stronger, and others should be weaker, but the prevalence of mixed mechanisms implies that we cannot pick and choose which norms will become stronger.

In the past individuals often have found the social norms in their communities to be too tight rather than too weak. Large numbers of individuals have moved to cities and suburbs, chosen to live in relatively anonymous neighborhoods, embraced commercial society, decreased their religious participation, and adopted norms looser than those of their parents. When the costs of moving fall, many individuals show that they would rather have less cooperative efficacy, all things considered. In America these trends were particularly pronounced in the late 1960s and early 1970s. The desire to escape tight social norms is not the only impetus behind these developments, but the evidence does indicate that, over time, individuals have demonstrated preferences for weaker norms and looser community. Two hundred years ago, most ordinary educated Englishmen and Frenchmen held a positive attitude towards Sparta (Rawson 1969:1), but today most individuals regard the Spartan lifestyle with distaste, if not horror.

#### **4. Implications for political philosophy**

Our arguments, by tightening the criteria for institutional failure, make us more skeptical of claims of either market failure or government failure, relative to observed outcomes. Many institutional failures, in both markets and governments, can be traced to public goods problems. The existence of unproduced public goods, in either the private or public realm, does not, itself, refute a null hypothesis of no institutional failure. Nor does the production of a public bad in other sectors indicate institutional failure. Either market or governmental “failures” may possess second best efficiency properties, or even if they are not second best

efficient, they may be closer to second best solutions than we had previously thought, given the costs of greater cooperative efficacy.

Our arguments therefore do not necessarily favor a conclusion of either more government intervention or less government intervention. Left-wing views should confront the second best benefits of cooperative inefficacy in markets and right-wing views should confront the second best benefits of cooperative inefficacy in government.

The issue of cartel enforcement illustrates the sometimes contradictory positions held by the left wing and the right wing on public goods production. Free market economists typically express confidence in the ability of markets to produce public goods. They cite norms, sanctions, and repeated small group interactions as mechanisms encouraging public goods production (Cowen 1991, Klein 1997). At the same time, free market economists tend to be pessimistic about the stability of cartels in an unregulated market. If markets successfully produce local public goods, however, why are stable cartels not more prevalent? Critics of the market tend to take the contrary positions, leading to tensions in the opposite direction. Left-wing economists doubt the ability of markets to produce public goods, but they also fear that free market cartels possess great stability and power.<sup>11</sup>

The costs of cooperative efficacy provide an especially strong challenge for communitarians, who stress the benefits of public goods production. First, communitarians have not come to grips with the costs and inequities of cooperative efficacy, such as cartels, discrimination, and the possibility of undesirable government policies.<sup>12</sup>

Second, individuals have deliberately sought out lower levels of cooperative efficacy, as discussed above. We interpret Putnam's evidence on the decline of bowling leagues, for instance, in a different light than do most communitarians. We see Putnam's results as support for the claim that cooperative efficacy can be too high. The costs of organizing bowling leagues do not appear to have risen over time, and individuals could still bowl in leagues at old rates if they wanted to. Nonetheless more individuals prefer bowling alone to bowling in leagues. Bowling in leagues subjects the individual to greater gossip, scorn at the hands of inside group leaders, moral pressure to dress and behave a certain way, and other group impositions upon the freedom of the individual. The greater tendency to "bowl alone" indicates that many individuals have come to find previous norms too tight. These individuals now prefer to pursue bowling and other sports through different, more individualistic means.

We are especially suspicious of the argument that cooperative efficacy in government should be higher. To consider the problems in this claim, consider two broad classes of governments: those that act with regard for the public welfare and those that do not.

Insofar as a government acts to promote the public welfare, it already will have moved to an optimal feasible level of cooperative efficacy. That is, insofar as governments can influence or engineer a level of cooperative efficacy, this set of governments will have chosen the best level available. For these governments, feasible changes in policy cannot increase the level of cooperative efficacy without bringing costs in excess of benefits. A feasible optimum already obtains and movements towards greater public sector cooperative efficacy would produce undesirable results, on net.

An alternative and perhaps more realistic supposition is that governments pursue their own interests rather than the public interest. These governments will not choose an optimal

level of cooperative efficacy, so changes in the prevailing level of cooperative efficacy may improve welfare. Nonetheless it is not obvious that we wish to increase cooperative efficacy in governments of this kind.

Strong, selfish governments, possessing a near monopoly on coercive violence, have strong propensities to wreak damage on society (Rummel 1995). As noted earlier, the level of cooperative efficacy can affect the pool of potential politicians. Lord Acton noted that power tends to corrupt and Hayek (1944) argued that government tends to attract the already corrupt. A wide variety of public choice theory and evidence suggests that many governments are prone to overtax, overregulate, and sometimes to wield violence against innocent members of society. In more extreme cases, many campaigns of genocide and mass terror have relied on widespread public approval and cooperative participation (Conquest 1986, Kressel 1996). Throughout history tyranny has been the rule rather than the exception, and most of these governments have relied on public cooperation to a considerable degree. Increasing cooperative efficacy for selfish governments may bring very high costs and also may induce knavish politicians to pursue power (Sutter 1998).

While the anti-communitarian slant of our argument may be obvious, the costs of cooperative efficacy also challenge non-communitarian views, such as libertarianism and classical liberalism. Both libertarians and classical liberals favor relatively small governments, limited by binding constraints. The necessary means of limiting government to such levels, however, may imply a world with excess cooperative efficacy.

Libertarian views frequently ascribe large scale government intervention to the “concentration of benefits, diffusion of costs” logic presented by Olson (1965); Milton Friedman (1980) is one eloquent proponent of this view. In other words, libertarians believe that voluntary institutions do not necessarily produce the public good of mobilizing public opinion against excess government intervention. At the same time libertarians wish that this public good could be produced with greater effectiveness. If we translate this desire into a concrete trade-off, the level of cooperative efficacy must be higher if government is to be constrained.

The resulting tension is twofold. First, libertarians are highly sanguine about the ability of the market to produce public goods more generally. Yet libertarians are implicitly pessimistic about the ability of the market to produce the public good of mobilizing opinion against the government. Libertarianism thus implies a very particular positive theory of why some public goods are harder to produce than others. In particular, the public good of mobilizing public opinion against government must possess a special structure that makes it very hard to produce through voluntary cooperation. Most likely, a libertarian would argue that governments co-opt the small cohesive elites that would otherwise mobilize community opinion in a more libertarian direction.

The second tension in libertarianism arises because most individuals have revealed a preference for a relatively weak level of cooperative efficacy, given their desires for social freedom, relative anonymity, and urbanization. At these (potentially optimal or near-optimal) levels of cooperative efficacy, effective libertarian constraints on large government simply may be impossible. In other words, “excess,” non-libertarian government may be part of the price we pay for modernity, given that we wish to constrain the operation of mixed mechanisms. Tighter norms and greater cooperative efficacy, in principle, would enable citizens to constrain government to a smaller level, but would involve high external social

costs in other areas. The most consistent libertarians therefore may be the Jeffersonians, who believed that small and cohesive agrarian communities were necessary to constrain government and prevent the spread of Leviathan.

Note that a government with low cooperative efficacy can coerce only through easily monitored contributions to public goods, like taxes. Such a government can be relatively unobtrusive. Libertarians with a strong revealed preference for privacy may well prefer provision of public goods through a large (but ineffective due to low efficacy) government to private provision through tight-knit communities. Similarly, in some cases libertarians should prefer a large and inefficient government to a smaller, more efficient government, given that the social structures needed to sustain the latter may involve excess cooperative efficacy.

## 5. Concluding remarks

Claims of institutional failure are more complex than first meet the eye. Solving most problems requires greater cooperation, but more cooperation does not always bring large benefits or even necessarily net benefits. Cooperative efficacy is not accompanied by a selection mechanism that filters out the public goods from the public bads. The costs of cooperative efficacy thus imply greater pessimism about our ability to improve the world through political change or superior provision of public goods.

Our analysis also suggests we should shift our attention towards mechanisms for selecting the outputs to produce and away from the level of cooperative efficacy per se. With imperfect selection (i.e., a mixed mechanism), increased cooperative efficacy leads to greater production of public goods and public bads. An improvement in the selection mechanism, on the other hand, filters out public bads without any corresponding offsetting disadvantage. Some of the expansion of government in the twentieth century must surely be a response to ballot reforms and anti-corruption measures which improved democratic decision-making. Nonetheless, most discussions of the decline in community focus on the level of cooperation, not on the selection mechanism, as our analysis would recommend.

The decline in cooperative efficacy noted by communitarians may in fact be a consequence of a decline in the performance of selection mechanisms. Homogeneous communities will have similar preferences for public goods; preferences diverge in heterogeneous communities. A community with a large Irish population will regard organization of a St. Patrick's Day festival as a public good. As the same community becomes more ethnically diverse, an increase fraction of residents might regard the festival as a bad. The same selection mechanism might produce more public bads as a community becomes more diverse. An increase in the number of violators quickly raises the cost of norm enforcement. A subsequent decline in cooperative efficacy would then be second-best efficient.

## Notes

1. For concepts similar to cooperative efficacy, see Hechter (1983) on group solidarity, and Putnam (1995) on social capital. On the benefits of cooperative norms and behavior more generally, from a variety of perspectives, see Buchanan (1994), Coleman (1990), Congleton (1991), Elster (1989), Hardin (1982), Hechter (1987),

- Kandori (1992), Klein (1997), Koford and Miller (1991), Lichbach (1995, 1996), Miszal (1996), Olson (1965), Petit (1995), Schotter (1981), Sugden (1986), Ullmann-Margalit (1977), and Young (1993).
2. See Lichbach (1995, 1996) for surveys.
  3. For a survey of eighteenth century views on the Spartans, see Rawson (1969). The costliness of cooperative propensities is also a prominent theme in Freud (1949a, 1949b, 1961), although his mechanisms focus on psychology rather than economic or rational choice. In a political context, Michels (1959) analyzed the "Iron Law of Oligarchy," an idea which has been pursued by Mansbridge (1980), in her study of participatory democracy. These writers suggest that political public goods are provided by minorities, who also exercise control over the process to further their own ends.
  4. We are not arguing that market cartels are successful in today's world, where they are hindered by antitrust law; nor are we arguing that cartels would be prevalent in a pure market setting with no antitrust law. Rather, we are noting that the degree of cartelization increases with cooperative efficacy, and that sufficiently high levels of cooperative efficacy *would* allow for stable cartels.
  5. A variety of empirical sociological studies suggest that tightness of social norms is correlated with strong distinctions between group insiders and group outsiders. Furthermore, the insiders tend to treat the outsiders as inferior and with prejudice (Triandis 1995 surveys this literature).
  6. We have assumed individual membership in the small cohesive group to be fixed. But suppose an individual could retreat from a leadership position and into the broader community. If so, provision of some public goods helps sustain cooperative efficacy. Members of the small group incur costs (either to sustain punishment and selective incentives or to produce the public goods) which community members do not. Without some offsetting benefits, individuals would leave the small group, diminishing cooperative efficacy. The ability to impose contingent negative externalities gives leaders a reason to remain leaders and thus supports cooperative efficacy, again showing the link between costs and benefits.
  7. Triandis (1994) surveys the sociological literature on the characteristics of more tightly-knit, norm-oriented societies. For a defense of the greater autonomy found in modern societies, see Coser (1991).
  8. On the public goods problem behind government, see Kalt (1981).
  9. Another source of inefficiency occurs when group leaders fail to provide a public good for the group which is a bad for the leaders themselves.
  10. The local-global distinction may have relevance for economies in transition, such as the former Soviet Union. Regime change affects the selection mechanism but not the level of efficacy, at least not immediately. Low efficacy may have been preferable under the Soviet system, when the government did more bad than good, but now low efficacy prevents the government from establishing rule of law. A greater degree of cooperative efficacy may now be optimal, but moving to the new global optimum may be difficult and may produce a welfare decline in the interim.
  11. Cowen (1992, 1994) makes a related point to argue for the impossibility of libertarian anarchy. If private protection agencies could overcome collective action problems and cooperate to produce law, they also would manage to collude and restore government and a coercive monopoly on violence.
  12. For a survey of communitarian criticisms of liberalism, see Frohnen (1996).

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