

Democracy and Collective Action¹

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Abstract. The past decade and a half has seen substantial research, much of it experimental, studying conditions in which people are able to sustain cooperation in collective action problems. The traditional solution of obtaining funding for public goods by drawing on the government's powers of taxation appears to avoid such problems. But government is assumed to use its powers for social welfare enhancing purposes only because it is kept answerable to citizens by various checks. Many of these checks, such as voting in elections and scrutinizing government performance, should themselves suffer from free riding. How, if at all, do lessons from the study of small scale collective action apply to the problem of accountable, democratic government on the macro scale? I discuss recent research with a focus on preference formation, social interaction, and other behavioral underpinnings of government accountability.

Introduction

One of the most active areas in experimental and behavioral economics in recent years has been the study of collective action problems, often modelled by what U.S. researchers initially called the voluntary contributions mechanism (Isaac and Walker, 1988) and what European counterparts called the public goods game (Zelmer, 2003). In the standard experiment, subjects are assigned to anonymous groups, given endowments of laboratory currency to divide between private and group accounts, and asked to make a series of decisions in the face of a payoff scheme that renders full allocation of funds to the group accounts socially optimal but causes maximum allocation to one's private account to be the private payoff maximizing option for each player, taking the actions of others as given.

After scores of studies, the evidence (Zelmer, 2003; Herrmann and Gächter, 2008; Chaudhuri, 2011) suggests that most subjects show a willingness to hold back from complete free riding provided that enough others are doing the same, but that full cooperation is

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unsustainable without added mechanisms, given presence of some more selfishly inclined individuals and the tendency of even conditional cooperators to prefer sacrificing (for the collective good) at least a bit less than do others (Fischbacher and Gächter, 2010). Mechanisms successful at promoting sustained cooperation include communication without constraint on expression of commitment and emotion (Brosig, Ockenfels and Weimann, 2003; Bochet, Page and Putterman, 2006), opportunities to engage in costly pecuniary punishment (Fehr and Gächter, 2000, 2002, articles surveyed in Gächter and Herrmann, 2008, Chaudhuri, 2011, and Putterman, 2014), and endogenous choice of group membership (Coricelli, Fehr and Fellner, 2004; Page, Putterman and Unel, 2005; Kamei and Putterman, forthcoming), including options to punish by expulsion (Cinyabuguma, Page and Putterman, 2005). Both the presence of conditional cooperation in experiments without additional mechanisms, and the effectiveness of the mechanisms, provide evidence of the incompleteness of the selfish rational actor model of traditional economic theory. Human beings continue to display indications that millions of years of biological and tens of thousands of years of gene-culture co-evolution endow us with a social psychology able to achieve cooperative outcomes that would elude the hypothetical *Homo economicus*.

Yet there are many reasons why cooperation on much larger scales than these mechanisms were evolved to sustain is a necessity at the level of modern societies. National and sub-national governments oversee the building and maintenance of highways, rail networks, and airports, address policing and defense functions, operate judicial and prison systems, attempt to protect the public from unsafe pharmaceuticals, foods, and workplaces, operate social insurance schemes, and provide other public goods that it would be grossly inefficient to organize at the small group level. While standard economics tells us that these services could not successfully be paid for by voluntary contributions, it identifies a simple response to the classic free rider problem: with its monopoly on the use of force, the state can coerce each citizen into covering a portion of the needed funding in the form of mandatory taxes.

Does the free riding dilemma studied by authors in the voluntary public good provision literature lack a counterpart when we turn to public goods on a large scale, then? If problems

exist on this scale, might they be solely the qualitatively quite different ones studied by public economists, for instance problems of log rolling in legislatures or the devising of auditing and monitoring devices to curb corruption?

I propose negative answers to both questions. The purpose of this paper is to make the case that voluntary collective action problems are *not* made irrelevant on the macro scale by the existence of modern states and of the institutional mechanisms associated with them, including tax authorities and penal codes. I discuss ways in which sustaining of a democratic or publicly accountable state entails collective action problems that in some respects resemble those studied at small group levels. I consider the relevance to this problem of the aspects of human psychology acknowledged by behavioral economists, and discuss how research aimed at understanding the collective action dilemmas of the modern state might draw on the study of small-scale collective action and embrace both lab and field research methods.

States, accountability and democracy

Sizable polities that invest considerable authority in top leaders and their agents began to appear relatively late in the lifespan of modern humans, but emerged independently, without potential influence by neighboring models, in regions considerably separated in time and space (Renfrew, 2008). Larger and more socially differentiated states seem an eventual by-product of the historic transitions from lifeways of mobile foraging to living in more permanent and populous settlements (Fukuyama, 2011; Borcan et al., 2014), although some agricultural systems of lower productivity and crop storability did not culminate in state formation (Diamond, 1997).³ The small bands studied by anthropologists during the past century and a

³ Borcan, Olsson and Putterman review extant knowledge to identify the year of first emergence of a large-scale state on the territories of 159 countries of today, omitting mainly countries with less than 0.5 million current inhabitants. They find a highly significant correlation (with a *t*-statistic above 20) between time of transition to agriculture and time of state appearance. It took roughly seven thousand years from first reliance of substantial populations on agricultural production in the Fertile Crescent to emergence of the first real states in what is now southern Iraq. For the 78 countries in their sample in which the first state emerged internally, rather than by conquest from without, the partial correlation coefficient implies that where agriculture first appears one millennium later, the state appears on average a little over 500 years later. Highland New Guinea provides a premier example of a case in which agriculture was the main source of subsistence for millennia but no states formed prior to European contact. Mayshar *et al.* (2015) argue that a storable and appropriable cereal staple may have been a pre-requisite to the emergence of states.

half have been found to be remarkably less socially differentiated and less hierarchical than the social groups in which our closest primate relatives live (DeWaal, 2006; Fukuyama, 2011; Wilson, 2012); yet the independent emergence of hierarchical chiefdoms in places as widely separated as Crete, Tahiti and the American Pacific Northwest, and that of powerful kings and emperors (without knowledge of parallel structures elsewhere) in such geographically and temporally remote cases as Mesopotamia, China, and pre-Columbian Mesoamerica, suggests both (a) an inability of humans to live at high densities without political structures quite different from those of the band and (b) the greater durability and the repeated re-emergence, until recent centuries, of hierarchical and inegalitarian rather than of democratic and egalitarian macro polities.⁴

Why, then, did the extremely inegalitarian variants that dominated observable large polities during the first five thousand years of their history begin giving way to democratically accountable states during the most recent two and a quarter centuries, transitioning to such forms more rapidly and on an increasingly global scale in the past few decades? Possible explanatory factors include (i) the strengthening of the capacities of wider circles of citizens to demand more rights and powers thanks to the spread of knowledge and information associated with the printing press and mass education and literacy, (ii) the value of the appeal to egalitarian/universalist ideals to commercial, intellectual, and other early modern elites who lacked aristocratic status but wished to weaken the holds on power of feudal elites and of territorially expanding monarchies, (iii) the spread of the ideal of democracy within regions and among culturally similar countries, making reversals of local democratization gains less likely (Persson and Tabellini, 2009), and (iv) emergence of mass conscription as a requirement of

⁴ Many anthropological and evolutionary biological discussions of the subject suggest that propensities towards violence among human males may contribute to explaining egalitarianism in small bands: relative equality of ability to inflict harm on one another supported resistance by the many to any one male enjoying a disproportionate share of resources. The same propensities, however, might explain the emergence of hierarchy in large groups. Whereas each dyad and every potential coalition in the small band might quickly and personally nip trends towards unequal power in the bud, such horizontal policing of one another becomes impossible when populations having frequent contact grow to number in the thousands. Willingness to accept the authority of a vertically organized ruling coalition may have grown proportionately with increases in horizontal violence. The potential to accumulate property once more sedentary ways of life emerged also eventually fostered inequalities of wealth that similarly favored the monopolization of power by winning coalitions.

successful military power, and the resulting emphasis on increasing citizen rights as a way of motivating combatant loyalty (Fukuyama, 2014).⁵

My focus in what follows is not on what caused the transitions to democracy; rather, it is on how democratic states are at all sustainable given their theoretical impossibility, in a world of strictly selfish and perfectly rational individuals. But before addressing that problem more directly, let me engage in a thought experiment about whether the well-being of a population will be of concern to a government even if the people in question don't actively engage in demanding rights and services.

Suppose that states end up existing in every populated territory simply because there are needs for provision of law, order, national defense, and other services having both economies of scale and potential problems of free riding that can be solved by stipulating mandatory payment requirements (taxes) backed by the threat of state coercion. What could lead states to attempt to provide amounts and kinds of services, and to collect amounts of taxes, that come close to the levels that maximize a societal welfare function placing relatively equal weights on the well-beings of the citizens, rather than to focus on maintaining control and on siphoning resources into the pockets of those at the helm of the state, with just enough side-payments to lower-ranking officials, police and soldiers to make supporting the rulers the best option for that small slice of the population?

One possible answer is that even an unelected government valuing only the wealth of its ruler will have an interest in adopting rules, providing services, and setting tax rates that foster economic activity and wealth creation among the populace, because this maximizes the tax *yield* rather than the tax *rate*. This may be more true the more stable the ruler's hold on power and the closer (in the ruling dynasty's view) the substitutability between the wealth of the ruler's heirs and that of the ruler (minimizing time horizon concerns). The main point here is that the services provided and the tax rates set by such a state would not diverge far from those of a state having personnel serving entirely at the pleasure of the citizens. If so, putting

⁵ For an economic model in which countries with less long established centralization of power (like England and the Netherlands) are more likely to democratize early than counterparts with long historical power centralization (like China, Turkey and Iran), see Lagerlöf, 2016.

formal electoral powers in citizens' hands, and citizen utilization of those powers and activism in the disciplining of officials, could by hypothesis be superfluous. We may dub this the "grow the tax base" theory of the non-predatory, or even the "'as if' accountable," state.

An alternative reason why an enlightened autocratic state might pay attention to citizen needs, differing from the "grow the tax base" logic of the last paragraph, might seem to be that even a dictatorship or monarchy has to worry about the well-being of citizens insofar as there is the possibility of being overthrown by a rebellion. But this factor falls short if citizens are in fact strictly rational and selfish. A popular uprising to install a government that will serve fully popular goals is logically impossible if each citizen weighs the danger of bodily harm in the course of the uprising, since it's always preferred to let others incur this cost (and if enough others aren't willing to do it, the uprising is in any case doomed). The only coalitions that might be able to mount successful uprisings in a society of rational selfish individuals would be those able to commit to specifically rewarding identifiable members and harshly punishing defectors. But it follows from such reasoning that the danger of rebellion would cut against rather than in favor of "enlightened" or "'as if' accountable" rule in a world of uniformly selfish and rational individuals.⁶ To prevent such rebellions, incumbent rulers would need to reward their immediate followers disproportionately, and this factor would work against both the 'spread prosperity to stave off revolution' argument with which this paragraph began, and the "grow the tax base" argument of the last paragraph. Note also that if incumbents are unable to calculate a perfect way of rewarding the members of their coalition so as to assure remaining in power, that uncertainty itself would lead to further dampening of the rationale for lighter taxation and better provision of services, since a ruling clique unsure of its hold on power has incentive to maximize its take today.

But now, consider the radical alternative of political democracy that we've seen being approached gradually in several Western countries for the last two centuries, that has for some

⁶ Of course, the statement is incomplete insofar as it fails to speak to what the alternative of the status quo is. Still even if a population suffers utter misery pre-revolution and foresees a much better life were a democratic revolution to succeed, there would be a free riding problem presuming agents with strictly selfish and material interests. Solutions that become possible if we consider actual, social human beings are discussed below.

time now been seen in all of Western Europe and in a few countries elsewhere (Japan, India, Costa Rica), and that has been approached to varying degrees in much of eastern and southeastern Europe, S. Korea, Taiwan, and increasing numbers of Latin American and sub-Saharan African countries since the 1990s. Leaders are elected by adult citizens, a considerable share of whom register and visit their polling places voluntarily. Ballots are cast secretly so that individual votes cannot be rewarded or punished. Powers are dispersed between executive, legislative, and judicial branches of government. There is spontaneous, commercially funded reportage on political positions and events, with journalism rendered financially viable in part by public desire to read about the matters being covered. Leaders who violate constitutional constraints on their powers can be removed, and there are periodic elections and term limits preventing individuals or their families from remaining in power indefinitely. Through these and other mechanisms, government is rendered to some degree answerable to large parts of the population, hence approaching the normative ideal of using its privileged license to deploy force (if necessary) not against the population but rather to collect revenue for welfare enhancing ends. Such a government provides a vector of public goods in quantities approximating the levels favored by the median citizen, possibly coming rather close to the ideal preference of many, and taking tax revenues out of the stream of value generated in the economy only to the degree needed to achieve those provision levels.

A central point of my discussion is that the ideal of the previous paragraph is an entirely unworkable proposal, according to traditional economic theory. In a polity containing a million or more potential voters, any one voter's likelihood of affecting who is elected is vanishingly small, but it takes a non-negligible amount of time to register, vote, and obtain information about the candidates and the policy issues on which their stated positions differ. If acts of political participation are not valued by individuals as goods in their own right, then the foregone opportunities to engage in wealth accumulation activities or to enjoy leisure in ways other than studying political issues and voting, are almost certain to outweigh the value of altering the electoral outcome when weighted by the vanishingly small probability of its occurrence. Even if some people did bother to vote and to pay attention to politicians' position statements prior to elections, the politicians would have no incentive to keep to announced

positions unless they were intrinsically averse to lying (a moral disposition alien to the strictly selfish economic actor), or were motivated to build a reputation for consistency (which can make sense only if enough voters believe that politicians come in “types” other than the strictly selfish and rational one) or if enough voters continued paying attention to politician behavior between one election and the next, maintaining an active threat of recall.⁷

Democracy with human voters and politicians

Now, relax the assumption that the agents we wish to understand are perfectly rational, selfish, and believe that all are likewise of that type and share common knowledge of it. In its place, allow for some actors of the sort for whom evidence has been found by behavioral economists, including those studying decision-making with laboratory and lab-in-the-field experiments. Bounded rationality, responsiveness to framing and defaults, and other features of human psychology will be present in the more realistic world we now enter, but my focus here will be especially on the social psychological dimensions of this world. In this domain, the need to navigate tradeoffs between self and group are ubiquitous and have been sculpting neural architectures and neurochemical reaction repertoires beginning with our social mammalian ancestors of tens of millions of years ago and continuing throughout the intervening eons. Those same social needs helped to shape our own large-brained, language-using species during thousands of generations of gene-culture co-evolution, and they influence the development of each individual through familial, school, peer, media, and other environmental exposures from birth onwards. The large majority of such individuals are non-sociopathic actors who derive utility from being able to think of themselves as “good,” people whose choices between selfish actions and those dictated by social norms are not too different from the mode. The people around her appear to take an interest in politics because they see that it affects them, because it is human nature to be alert to social dangers and cheating and to gossip about those perceived to be norm-violators or to pose potential threats, because they live in societies that attach positive value to civic engagement and invest in socializing their

⁷ Note that although citizen vigilance might deter outright corruption, officials can’t be removed from power merely for changing their positions once elected, so such vigilance is not in itself a guarantee that a politician will promote the positions she espoused to get elected.

young people accordingly, and because conforming to values others seem to exhibit is natural. Cheating by officials and self-dealing by politicians arouse reflexive interest in us—think of the “cheater detection mechanism” proposed by evolutionary psychologists (Cosmides and Tooby, 1992)—hence there is willingness to pay to consume the fruits of investigative journalism. The political news is filled with interesting anecdotes touching on the kinds of human drama with which story-tellers from Homer to Shakespeare to George Lucas have entertained audiences—ambition, competition, loyalty, betrayal, ingratiating, backstabbing—so paying some attention to it is entertaining. Politics also becomes an anchor for identity, a team sport, a narrative satisfying the near universal human drive to have a story line and purpose in life. Satisfaction can come from being a campaigner for justice, for protecting one’s ethnic, occupational, ideological, or other group from threats or helping to redress its grievances, and so on. One must do one’s part to help right—or the lesser or evils?—to prevail. Importantly to the decision to actually go to the polling place, or in rarer times to join the rally in the square, is that seeing the preferred outcome be obtained without the positive self-image that comes from having done one’s part personally would bring less satisfaction.

The lure of fame, power, and of the prospect of translating political into financial success may be the main motives attracting most of those who chose it into a political career. But the desire to play a larger role on the side of one’s political causes, or a more rarified desire to contribute to broad ends of social welfare, help motivate some actors to enter the political stage, and probably attract still more actors to less visible positions in government bureaucracies, and in judicial, police and other roles. The possibility that altruism and principle may play significant roles in the motivations of some public servants is a game changer, comparable to the possibility of cooperators or tit-for-tat players in social dilemmas, and especially so if there exist ways of signaling such qualities to others. There arises the chance that enough voters successfully sort politicians by this standard as to successfully impact the share of principled actors (or what Besley, 2007, calls principled agents) in important positions. Perhaps more importantly, the presence of such sorting efforts may induce other politicians, would be judges, army officers, etc., to attempt to act *as if* principled, sometimes approximating what such actors would do despite ulterior intent. With a few principled

individuals in important bureaucratic posts and with standards of impartiality, public service, or fiduciary obligation towards the public at least nominally applied in promotion decisions, other-regarding and principled behaviors can play meaningful roles in the quality of government, contrary to the more pessimistic assumption that everyone involved is engaged exclusively in feathering his or her own nest.

Economists and political scientists influenced by the rational choice paradigm have been studying the “paradox of voting” for decades without complete resolution. But there are numerous pieces of evidence for the idea that human social nature, as opposed to the motives of *Homo economicus*, play a large part in any satisfactory explanation. For example, the inculcation of ideals of citizenship helped motivate the idea of public schooling, and while I know of no longitudinal or between-country demonstrations that the process worked historically, studies consistently show that more educated individuals are more likely to vote, even after their higher incomes are controlled for. Although the logical case can be made that devoting time and effort to voting is instrumentally pointless, as a result of which the intelligent and educated might be expected to make non-attendance at the polls a point of pride, there is anecdotal and other evidence to the contrary. Possibly one of the most important reasons why people pay attention to political affairs and vote, regardless of education, may be that it would be socially embarrassing to reveal no knowledge of politics during casual conversation with family, co-workers, or neighbors—like not knowing the names of the best players on your city’s famous basketball team—and that it would likewise be an embarrassment to have to say you didn’t vote.

While it has been difficult to support such claims other than anecdotally or by personal knowledge, clever research designs can in fact obtain evidence. In a recent and remarkable study, Della Vigna *et al.* (2012) send surveyors to more than 13,000 households with prior knowledge from poll records that either (i) all registered voters in the households had voted in the most recent congressional election, or (ii) none had done so. Interviewees were given no hint that the researchers were informed on this point. By varying whether the interviewees know or do not know in advance that the survey will be about their recent voting, by also varying whether there is a payment for answering questions and an option to avoid several

minutes of interview time by saying they did not vote, and by borrowing estimates of the cost of lying⁸ from other studies, the authors are able to estimate the dollar value to voters and non-voters of being able to say truthfully that they voted, when asked. They estimate the value of voting in the congressional election in case of *expecting to be asked* whether they had voted *only one time* to be between \$1 and \$3, and they report that respondents said they had in fact been asked (by friends, co-workers, etc.) whether they voted an average of five times. They accordingly argue that if voters correctly anticipated being asked five times, they would attach a social image value of voting of between \$5 and \$15, and they suggest that the value could be much greater in a presidential election, and that the “social-image utility ... from interactions with family, friends, and co-workers are likely to be larger” than the one they estimate, because the estimate is based on being asked by a stranger/surveyor. Thus, the social standing benefits of voting could be well worth the small cost in time and effort.

Della Vigna *et al.* followed up on their main study by later giving some households flyers stating that they would be conducting a survey about their participation after the next election, and giving other (control) households flyers reminding them that the election was upcoming. They found that being given the flyer about a prospective survey was associated with 1.3% higher voter participation among the study households, in 2010, although with an insignificantly higher 0.1% voter participation in 2012. Overall, these findings are at least weakly confirmatory of the theory: expecting to be asked about your voting helps to motivate doing it. Survey data discussed by Knack (1992) shows that most surveyed U.S. adults agreed strongly with the statement “no matter who wins, the more people who go to the polls, the better off our democracy will be,” and with other statements suggesting that voting is a “civic duty.” He further cites a study (Silver, Anderson, and Abramson, 1986) which finds that about a quarter of

⁸ It is experimentally well established that most people are biased towards truth-telling if they have nothing to gain from lying, but are willing to lie about simple matters (for example, what card they drew from a deck) if there is no potential penalty and enough money is at stake. Individual willingness to lie at different financial stakes varies, so an average measure of the cost of lying is the amount at which the average individual becomes indifferent between lying and truth-telling.

surveyed non-voters falsely report having voted, treating this, as do Della Vigna *et al.*, as evidence that many people consider voting to be at a minimum a plus for one's social image.⁹

Horizontal versus vertical enforcement in the lab and field

As indicated at the outset, we've learned from laboratory decision-making experiments much about how people can use horizontal interactions and enforcement mechanisms to address collective action problems in small groups. Until recently, top-down enforcement by a formal authority and horizontal enforcement by peers do not appear to have been compared, or made alternatives of choice, in such experiments. Now, the topic has begun to be addressed by papers such as Fehr and Williams (2013), Markussen *et al.* (2014), Zhang *et al.* (2014), Kamei *et al.* (2015), and Nicklisch *et al.* (2015).¹⁰ These papers differ from one another in that in some of the experiments, the role of formal authority is represented by a computer program, in some an experimental subject is assigned to the role, and in some, subjects choose the authority. The latter are the only ones thus far to begin to address the issue I've raised above: that a government can solve the free riding problem in provision of public goods, but can be expected to do so in a welfare-enhancing way only if somehow held accountable by members of the public. Giving subjects in small groups the power to choose which of them will be assigned the power to punish others, including the power to replace misbehaving authorities with others, begins to capture the electoral dimension of controlling political malfeasance.

⁹ Before I leave this section in which I've tried to bring some elements of realistic human nature into the picture, let me add a *mea culpa*: that I have added to the picture of selfishly rational economic man almost exclusively amendments leaning towards pro-sociality, such as the willingness to incur small material costs to achieve cooperative aims. A more complete discussion requires recognition also of deviations in a more negative direction: inclinations to incur costs so as to bring others down, and still darker inclinations to inflict harm as a means of achieving status or out of pure sadism. I've hinted at this point in this short paper only by saying that the large majority are non-sociopathic, so leaving room for a minority of sociopaths, but there is still room for more everyday negativity by more average individuals. That *Homo economicus* is not as bad an actor as one can conjure up from human experience is discussed, for instance, in the clever titled "The Dark Side of the Force" by the late Jack Hirshleifer (1994). The "dark side" has certainly played powerful parts in the history of states, especially in their military conflicts with one another and in their use of cruelty to control their own populations, but these extreme examples aren't meant to imply a lack of relevance to modern and even democratic settings. I devote a chapter to the evidence of self-interest and evil on a general level in Putterman (2012), but this book is for a general rather than scholarly readership and the focus of that chapter is not on political behavior.

¹⁰ There have also been a number of recent papers about formal enforcement without comparison to peer enforcement, for example Kingsley and Brown (2016).

An alternative approach that collaborators and I are now experimenting with is to more directly model the problem of the accountable state as a second order public goods problem. We place groups of experimental subjects in the typical voluntary public goods provision setting, where the social optimum is achievable without sanctions but only by abnormally cooperative groups.¹¹ We make potentially available a formal sanctioning scheme that would render perfect cooperation selfishly rational, but we make voluntary contributions to the second order public good of “civic engagement” the pre-requisite for getting such a scheme.¹² Horizontal interactions among subjects in the civic engagement stage may thus contribute to construction of the vertical enforcement mechanism. The key question for design of such experiments is how to conduct the second order contribution interaction in a way that captures features of the real world problem of civic engagement, rather than being simply another laboratory public goods dilemma in which subjects are allocating tokens between private and public accounts—since the latter seems likely to shed no new light on what is already a familiar problem. Giving the cooperative activity a substantive connection to relevant counterpart actions like paying attention to news media, looking up one’s polling place or registering to vote, may be part of the solution. Giving scope to social image concerns via informational feedbacks within subsets of a larger electorate may be another part. In pilot experiments in which the second-order problem was still modelled as one of token allocation, we let subjects share messages in a chat room about whether to contribute to a civic engagement fund, and for many groups the communication did lead to high contributions to this second order public good.

¹¹ By “abnormally cooperative groups” I mean, for instance, groups of homogeneous individuals permitted to engage in preplay communication, something unavailable in our design.

¹² In contrast, in the experiments of Markussen *et al.* (2014) and Kamei *et al.* (2015), choosing the formal scheme imposes a cost on group members, but the choice is made by voting, which eliminates the social dilemma features of the problem, since it is in the median voter’s interest to impose the scheme on herself when it will with certainty also be imposed on all other group members. Andreoni and Gee (2012) require individual voluntary monetary contributions to get a centralized punishment scheme (which they call “a gun for hire”) into place, but the mechanism is that of a threshold public good, wherein in principle it can be selfishly rational to contribute provided that others are expected to do so—thus, instead of social dilemma, there is at least theoretically only a coordination problem.

Both lab and field experiments may prove useful to exploring whether civic engagements correlates with other evidence of cooperation. As Knack (1992) notes, people vary in their degree of cooperativeness and concern about social image, so if civic engagement actions such as voting and largely socially driven, we can expect to find those who more often give to charity, volunteer in their child's school, and so on, also vote more often. Experimentalists have developed a number of techniques with which to gauge the pro-sociality or conditional cooperativeness of individuals, so bringing known voters and non-voters into the lab to play such games, or engaging surveyed adults in brief versions of the games either in the course of surveys or at online platforms, may be useful methods for testing the hypothesis.

Concluding remarks

Research of the kinds discussed above is not only of theoretical importance. Political democracy is still a relatively new institution, in the world as a whole, and citizen participation in the political process remains problematic even in some countries having longer experience of democracy. Government offers a powerful mechanism for addressing many social problems and raising the quality of life of nearly all citizens, but having governments that are accountable to those citizens requires a degree of engagement on their parts that can't be taken for granted. Institutional approaches such as making civics education a part of the curriculum in mandatory public schooling, and making space for non-profit foundations and for organizations such as the U.S.'s League of Women Voters which promote civic engagement, have been among past devices that seem to have proven helpful to addressing the social dilemma of democracy's "logical impossibility." As the social scientific understanding of human behavior in these settings, to which behavioral and institutional economists bring important perspectives, continues to improve, we will ideally be able to tweak existing approaches and devise new ones that help to make democracy, like other forms of cooperation, more vigorous and sustainable, confounding the hypothetical rationality of us each going our own separate ways.

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