

Field Experiments on Political Behavior and Collective Action

Eline A. de Rooij,¹ Donald P. Green,² and
Alan S. Gerber²

¹Nuffield College, University of Oxford, Oxford OX1 1NF, United Kingdom;
email: eline.derooij@nuffield.ox.ac.uk

²Department of Political Science, Yale University, New Haven, Connecticut 06520;
email: donald.green@yale.edu, alan.gerber@yale.edu

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Abstract

This brief review considers how field experiments have contributed to the study of collective action. Field experiments have largely supported findings from laboratory studies suggesting that collective action problems are often overcome through communication and social pressure. These results call into question theories suggesting that collective action problems are intractable in the absence of material inducements to participate.

INTRODUCTION

A challenge in social science—perhaps *the* challenge—is to measure causal effects accurately. Statistical methods used to analyze non-experimental, or observational, data draw inferences about causal relationships by studying naturally occurring variation in outcomes while controlling for observable differences between the groups under study. In contrast, experimental studies, whether conducted in the laboratory or field, randomly assign units of observation to treatment and control groups, ensuring that, in expectation, there are no observable or unobservable differences between groups before the treatment. The hallmark of experimentation is that it relies on randomization to ensure unbiased inference.

Measuring causal effects accurately makes theorizing more efficient. When the existence of a causal relationship is established, theory is directed toward explaining why a causal effect occurs and the extent to which a causal relationship holds across different settings and populations. New experiments can then be designed to guide these theoretical refinements and to test theoretically derived propositions.

Field experiments, randomized trials conducted in a naturalistic setting, strive for greater external validity than lab experiments. Field experimentation attempts to approximate as closely as possible the conditions under which a causal process occurs. Ideally, subjects are unaware that they are part of an experiment; the interventions are similar or identical to the interventions they would experience in everyday life, and the outcome measures are the behavioral or institutional consequences of real-world significance.

In this brief essay, we summarize recent empirical findings and theoretical insights derived from field experiments. We focus in particular on collective action. Theories of rational action suggest that collective action is a paradox, and much theoretical energy has gone into formulating models to overcome this paradox. These models have been extensively tested in the lab, and recently researchers have started to

test models in the field. Our overview of this literature suggests that field research has corroborated and extended findings obtained in the lab.

THE PROBLEM OF COLLECTIVE POLITICAL ACTION

Theories of collective action are concerned with explaining whether and how individuals overcome collective action problems (also called social dilemmas). Problems of this type occur “whenever individuals in interdependent situations face choices in which the maximization of short-term self-interest yields outcomes leaving all participants worse off than feasible alternatives” (Ostrom 1998, p. 1). Often collective action problems concern the production or maintenance of a public good, that is, a good of which “one person’s consumption. . . does not reduce the amount available to anyone else” and which “it is impossible to prevent relevant people from consuming” (Hardin 1982, p. 17). One such public good is the outcome of an election or legislative decision.

In the subfield of political behavior, collective action problems are often formulated in terms of a paradox. Political participation is seen as irrational, given that no single individual contribution plausibly affects the aggregate outcome of an election or the success of a social movement. Solutions to the paradox are often phrased in terms of selective incentives. According to Olson (1965), collective action can only be successful in the context of small groups or if “coercion or some other special device” (p. 2) is applied to make individuals cooperate. Although Olson stresses the importance of material incentives, others suggest the importance of psychic incentives. Examples include the satisfaction of affirming party preference or an allegiance to the political system (Riker & Ordeshook 1973, p. 63), receiving side-payments from compliance with social norms (Axelrod 1986), or enjoying the entertainment value of participating (Tullock 1971).

The open question is the extent to which these nonmaterial incentives are sufficient to

Random assignment:

a process by which units of analysis are assigned to experimental groups with equal probability

External validity: the extent to which a study’s findings can be generalized to other settings and populations (see Campbell & Stanley 1963)

Paradox of collective action: because no individual contribution to a collective good is decisive in the context of large groups, self-interested individuals will defect

Selective incentives: incentives that operate only on individuals who contribute to the attainment of a group’s interest (Olson 1965, p. 51)

generate collective action. This question has been studied primarily through lab experiments. The next section focuses on one of the most prominent findings of these experiments, namely the effect of communication.

LAB EXPERIMENTS ON COLLECTIVE ACTION

Lab experiments consistently find that individuals cooperate at far higher rates than theories on the problem of collective action would predict. Sally's (1995) meta-analysis of 37 experimental studies from 1958 to 1992 found cooperation rates were typically 20%–50% in games where the equilibrium prediction is little or no cooperation. The persistence of cooperation despite the temptation to shirk parallels the intuition derived from observational data: Roughly half of the eligible population participates in presidential elections. What, then, enhances cooperation?

One of the most robust findings of lab experiments on collective action is that relevant communication positively influences cooperation (see reviews by Ledyard 1995, Ostrom 1998, Sally 1995). This finding flies in the face of traditional theories of collective action, wherein preplay communication and the unenforceable agreement it might generate are considered “cheap talk” (Ledyard 1995, p. 156) that should not affect an individual's decision. Ostrom (1998) argues that face-to-face communication about the collective choice (as opposed to communication about an unrelated topic) allows subjects to convey mutual commitment, increase trust, create and reinforce norms, and develop a group identity.

Although lab experiments have been successful in demonstrating the effects of communication, the external validity of these experiments is debatable. The nature of lab experiments implies that “experimental gatherings of potential contributors are brought together by an outside party, available options are highly regimented, the collective cause lacks ideological content, and face-to-face negotiations tend

to take place in demographically homogenous groups” (Green & Shapiro 1994, p. 93).

FIELD EXPERIMENTS ON COLLECTIVE ACTION

Many of the factors influencing cooperation in the lab can also be manipulated in the field. Field experiments have the benefit of larger group sizes, longer timeframes, and more “natural” communication (Ledyard 1995, p. 153). The use of field experiments in political science is not new (see Eldersveld 1956 for an early example), but only since the late 1990s has this method come into widespread use. Field experiments have been successfully utilized in studies of political behaviors including campaign contributions, volunteering, and lobbying, as well as voter mobilization, on which we focus here.

A consistent finding from field experiments on voter mobilization is that the way in which a message is conveyed matters more than the message content. Direct mail and calls from phone banks that appeal to civic duty, to neighborhood or ethnic solidarity, or to the closeness of an election, do not result in significantly different outcomes in terms of voter turnout (e.g., Gerber & Green 2000, Michelson 2003). Supplying information on where and how to vote also tends to be ineffective (García Bedolla & Michelson 2009). Partisan and advocacy appeals seem to be no more effective than non-partisan messages (e.g., Panagopoulos 2009). These results seem to indicate that helping voters overcome information costs, calling attention to different collective benefits, or appealing to their party preferences (Riker & Ordeshook 1973) plays a minor role in the voting decision.

However, field experiments have found large differences depending on how a message is conveyed. Field experimental studies on voter mobilization show that impersonal mobilizing techniques such as email appeals or robotic phone calls have no detectable effect. Direct mail and standard calls from professional phone banks have turnout effects that average less than one percentage point (Green & Gerber

2008, p. 200). The effect of the more personal methods—door-to-door canvassing, calls from volunteer phone banks, and more conversational calls from professional phone banks—is much larger. Given a base turnout rate near 50%, door-to-door canvassing produces an average increase of 7.1 percentage points, and volunteer phone banks achieve an average increase of 2.6 percentage points (for a recent overview of this literature and a description of the effect sizes, see Green & Gerber 2008). Similarly, a series of experiments on the effect of a highly personalized, intensive seminar that encouraged high school students to see themselves as part of the political process showed a large average treatment effect, on par with face-to-face canvassing (Addonizio 2004). The results of a series of experiments on the effect of election-day festivals on turnout also suggest the importance of interpersonal interaction and small material inducements, such as entertainment and refreshments. Festivals held in a context with an expected turnout rate of 50% are estimated to increase turnout by 6.5 percentage points (Addonizio et al. 2007). By comparison, results from observational studies on turnout suggest an overestimation of the effect of mobilization. Rosenstone & Hansen (1993, p. 130), for instance, find that being contacted by a political party—either by someone calling or coming round to talk about the campaign—increases turnout by 7.8 percentage points. This estimate is on target for face-to-face canvassing but probably exaggerates the effect of partisan phone calls.

What is it about the form of communication, if not necessarily the content, that enhances collective action? In the past few years some field experimental studies have begun to explore the mechanisms of mobilization. The findings of one of these studies, aimed at disentangling the effects of peer behavior, selection processes, and congruent interests among members of the same household, show that when one voter in a two-voter household is subjected to a face-to-face Get-Out-the-Vote message, the propensity of his or her cohabitant to vote increases by 60% (Nickerson 2008). According to

Nickerson, the size of this effect is striking when compared to, for instance, the effect size of age, a well-studied predictor of voting. He estimates turnout among 18-to 24-year-olds to be 26 percentage points below that of individuals in their 60s (42% versus 77%). These findings seem to suggest that the decision to go out and vote is socially contagious: Individuals within the same household base their decision on whether to vote partly on the other person in the household. What remains to be studied is whether this is due to, for instance, social pressure or a lowering of the costs by simultaneously going out to vote (Nickerson 2008, p. 55).

The psychic benefits of complying with social norms are often used to explain why individuals engage in collective action (Axelrod 1986, Ostrom 1998). These benefits can be either intrinsic (solely obtained from complying with the norm) or extrinsic (received from others who know you complied). Field experimental studies have found little evidence for effects of intrinsic benefits derived from complying with the norm to vote, as appeals to civic duty tend not to significantly increase turnout more than other appeals (e.g., Gerber & Green 2000). In contrast, recent experiments suggest that extrinsic benefits of complying with the voting norm do increase turnout.

For instance, Gerber et al. (2008) conducted a field experiment on the effect of social pressure on voter turnout in the Michigan 2006 primary, covering 180,000 households. Gerber et al. find that the more social pressure exerted in mailings encouraging people to vote, the greater the difference in turnout between the control and treatment groups. Thus, a group that received mailings with mild social pressure, indicating that they were being studied by researchers, voted at a significantly higher rate of 2.5 percentage points than the control group, which received no mailings. A group that received a mailing listing the voting record of every registered voter in the household, and noting that an updated record of the list would be sent after the election, voted at a significantly higher rate of 4.9 percentage points. Finally, the group that received the most social

pressure, through a mailing that listed the voting record of every registered voter in the household and of several neighbors—also noting that an updated record of the list would be sent after the election—voted at a significantly higher rate of 8.1 percentage points. This is an extremely large effect, considering that direct mail is usually found to have a minimal effect on turnout (Green & Gerber 2008, p. 69).

The extrinsic motivation to comply with social norms might arise from the fear of sanctions, whether material or social, or, for example, from the wish to maintain a reputation as an upstanding citizen. Findings from the lab support both interpretations. Cooperation rates in public goods experiments increase if subjects know that they might meet the same partners again in future games (see the review article by Fehr & Fischbacher 2003). Moreover, even if subjects know they will not meet previous partners, they are motivated by the desire to acquire a good reputation in order to obtain the cooperation of others. A series of indirect reciprocity experiments between donors and recipients shows that if donors can acquire a reputation, they help recipients in 74% of the cases, whereas if donors cannot acquire a reputation, they help in 37% of the cases (Engelmann & Fischbacher in Fehr & Fischbacher 2003).

This example shows how the external validity of lab findings is strengthened by the results from field experiments in which interpersonal influence and social pressure seem to mediate the effect of communication on collective political action, such as voting. Together, lab and field experiments suggest that the social environment plays a large role in the decision to vote and that inducing collective action by providing certain psychic benefits may be the key to the paradox of political participation, at least in the short run.

CONCLUSION

In the initial phases of field experimental research, the aim was to test the effect of a given intervention. In recent years, the field experimental research agenda has gradually shifted to address more nuanced questions, such as under which circumstances the effect of mobilization is stronger or weaker. The results of these experiments complement those from the lab, showing that factors other than direct material benefits and enforceable agreements are important in the pursuit of collective action. These results run counter to predictions derived from traditional theories on collective action, in which material incentives play a central role and communication is dismissed as

Table 1 Topics for future field experimental research

	Question	Experimental test
1	What is the effect of laws on political behavior?	A randomized intervention changing people's awareness of a law (e.g., the nonexistence of a registration law in North Dakota) and estimating its effect on political participation
2	What are the political effects of church attendance and other forms of group membership?	A randomized intervention persuading ex-church-goers back into church to study the effect of this form of group participation on social trust and political participation, testing, for example, theories of social capital (e.g., Putnam 2000)
3	To what extent does persuasive communication affect social identities?	A randomized intervention exposing groups of political independents to persuasive messages from political parties or interest groups using appeals that emphasize group identity, ideology, or self-interest
4	To what extent does the electorate's level of ideological conceptualization depend on the political context?	A randomized intervention aimed at changing ideology by varying the ideological range and discourse of candidates to whom individuals are exposed
5	To what extent does political participation respond to selective incentives?	A randomized design that publicizes and provides either material incentives (e.g., monetary compensation for time or transportation) or solidary benefits (e.g., a context for meeting friends or enjoying group activities)

unimportant. They also run counter to modified theories that emphasize the psychic benefits of expressing support for parties and causes, suggesting instead the importance of being observed to uphold social norms of civic participation. In summary, the empirical literature has begun to guide the theoretical literature toward a new and more precise understanding of how collective action problems are resolved.

Collective action is just one of many topics in political behavior that can and should be explored through the use of field experiments. In **Table 1**, we suggest other lines of inquiry that could be explored fruitfully through field experimentation. Some extend research on collective action in new directions; others apply field experimental methods to different aspects of political behavior and political psychology.

DISCLOSURE STATEMENT

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

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1. A discussion of advances in laboratory, survey, and field experiments.

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- 2. Gerber AS. 2004. Does campaign spending work? Field experiments provide evidence and suggest new theory. *Am. Behav. Sci.* 47(5):541–74**
- 3. Green DP, Gerber AS. 2002. Reclaiming the experimental tradition in political science. In *Political Science: The State of the Discipline III*, ed. H Milner, I Katznelson, pp. 805–32. New York: WW Norton**

2. An argument about the interplay between field experimental research and theoretical progress.

3. A discussion of the revival and special value of field experimentation.

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