

ALTRUISM, PARTICIPATION, AND POLITICAL CONTEXT

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In this paper, we examine the relationship between *altruism*, a willingness to pay a personal cost to make others better off, and political participation. We argue that if altruistic individuals see promise of a net societal gain from political outcomes, they should be more likely to participate. When the potential gains are purely distributive, however, altruists may be no more likely to participate than egoists. Empirically, we first show that dictator game behavior predicts support for humanitarian norms and donations to Hurricane Katrina victims, suggesting that dictator game allocations are valid measures of altruism. Next, we demonstrate that this measure of altruism predicts general participation in politics, suggesting that past results with students may be generalizable to a broader population. Moreover, we find that the dictator game allocations provide an independent contribution to explaining variation in participation, above and beyond self-reported attitudes towards helping others. Consistent with the argument that altruists only participate when they think doing so will make everyone better off, we uncover no relationship between altruism and voter turnout in an election where the outcome is distributive and where it is not clear that either political outcome will produce a net societal gain. We close with evidence suggesting that the relationship between altruism and electoral participation is weaker than the relationship between altruism and less adversarial forms of participation.

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Sometimes the world is messy, and the most parsimonious explanation is wrong. – Jon Elster¹

Is a theory of political participation based solely on self-interest realistic enough to be useful? Social scientists often start with the simple assumption that human beings are driven by self-interest. While this axiom helps simplify otherwise complex strategic interactions, it falls short in explaining a wide range of political phenomena, including two of the dominant foci of behavioral research: public opinion and political participation (Citrin and Green 1990; Mansbridge 1990b; Mansbridge 1990c; Sears and Funk 1990, 1991). In research on public opinion, scholars have searched for the impact of self-interest. Instead of discovering that self-interest is the guiding foundation of policy preferences, it instead appears to be the exception, found in narrow, circumscribed instances (e.g., Campbell 2002; Citrin and Green 1990; Green and Cowden 1992; Sears and Citrin 1985). In research on political participation, predictions from models based solely on self-interest often contradict observed behaviors (e.g., Aldrich 1993; Downs 1957; Feddersen and Pesendorfer 1996; Ledyard 1982; Myerson 2000; Palfrey and Rosenthal 1985). In the well-known paradox of participation, people actually do turn out in large numbers to vote, protest, or otherwise support a political cause despite the fact that an individual decision to do so has essentially no effect on the political outcome. In response to this paradox, a growing literature suggests an alternative to the self-interested rationale for political behavior.

We argue that altruism, or a willingness to pay a personal cost to provide benefits to others, can help to explain why some people participate in the political process (Dawes and Fowler 2007; Edlin, Gelman, and Kaplan 2007; Fowler 2006; Fowler and Kam 2007; Jankowski 2002; Jankowski 2004). If individuals incorporate benefits to others in their decision, then the potentially miniscule effect of their own action on a political outcome is counterbalanced by the very large number of people who might benefit from it.

However, we argue that the link between altruism and participation may be contingent. Political stakes and political contests evoke multiple motivations and multiple interpretations. If a

¹ Elster (1990, p. 45), critiquing the assumption that all human beings are motivated by selfishness.

political outcome appears to have no effect on net benefits to society and/or is merely redistributive (shifting costs or benefits from one party to another), then altruists will gain nothing from investing time and resources in politics, and thus will participate no more than individuals who are self-interested. An exception to this rule may occur if one side of a contest is considered disadvantaged over the other and thus deserving of support; altruists may be more likely to act on behalf of those who are perceived to be more deserving of help in that case.² We therefore expect the relationship between altruism and participation to be *context-dependent*. Although altruists will generally participate in politics more than individuals who are primarily self-interested, they are likely to participate more only in those circumstances where they think they have a chance to help others.³

We test our expectations using the “dictator” game (Forsythe et al. 1994). In our implementation of the dictator game, subjects divide ten one dollar bills between themselves and an anonymous individual and the amount they donate is used as a measure of altruism. Subjects are then asked a number of questions regarding their socioeconomic status, political attitudes, support for humanitarian norms, and participation behavior. Previous studies have used this technique to study the relationship between altruism and participation (Dawes and Fowler 2007; Fowler 2006; Fowler and Kam 2007), but they have focused exclusively on student populations. Here we study a nonstudent population to see if the relationship between altruism and participation holds in a population with more demographic variance than the typical population of “college sophomores.” While we do not have a random sample representative of the population as a whole, use of a nonstudent sample provides support for a somewhat broader claim of generalizability. Moreover, unlike previous studies, we use both self-reported and *validated* turnout to tie behavior in the dictator game to participation in political life. Research that connects measures derived from behavioral

² For example, Eckel and Grossman (1996) manipulate the target of dictator games to ascertain the role that altruism might play in these games; they find that subjects are much more likely to give when the target is the Red Cross compared with an anonymous individual. Perceptions of deservingness can increase expressions of altruism.

³ See Mansbridge (1990b, p. 21-22) for a more extended discussion of how institutions and political contexts can activate self-interested versus other-regarding motivations.

economics (such as dictator game behaviors) to political phenomena is relatively hard to find. The work that does link dictator game behaviors with political phenomena uses self-reported measures which are prone to intentional or accidental misreporting. Here, we go beyond this existing work by incorporating validated turnout behavior, thus alleviating the concern that people may misrepresent their participation.

We first demonstrate the criterion validity of allocations in the dictator game by showing that a dictator game allocation can be understood as a measure of altruism because it predicts support for humanitarian norms and charitable contributions to Hurricane Katrina victims. Second, we establish that the positive relationship between dictator game giving and political participation exists in a nonstudent population, providing evidence to support the claim that previous results for students apply to a general population. Third, we show that dictator game giving provides added-value in explaining political participation, above and beyond self-reported attitudes towards helping others. Fourth, we argue that the link between altruism and political life can depend upon how political stakes are framed, and we provide suggestive evidence in this regard. When electoral issues are framed as distributive contests, where costs and benefits are merely shifted from one party to another and where there is no clear way to connect political activity with making everyone better off, altruists participate no more than egoists.

REGARD FOR OTHERS AND POLITICAL LIFE

Empirical conundrums and unexpected acts of selflessness have exposed cracks in the foundational assumption of self-interest. They have also stimulated academic inquiries into *altruism* across several disciplines, including the biological sciences – where the actions of parasites, ants,

bees, and guppies are the focus of analysis⁴ – and the social sciences of psychology, sociology, economics, and, at a more halting pace, in political science.

In psychology, the study of *prosocial* behavior enjoyed its heyday in the 1960s and 1970s, with research focusing on the conditions under which individuals help others.⁵ In the ensuing decades, psychologists continued to investigate the developmental, cognitive, and emotional mechanisms underlying why people help others, as well as the situational determinants of helping behaviors (for a comprehensive review, see Dovidio et al. 2006). Sociologists have examined, among other things, the causes and consequences of voluntary acts such as blood and organ donation and civic volunteering as well as disaster assistance, focusing to a greater degree than psychologists on the creation and maintenance of social norms and relying to a lesser degree on experimental research (Piliavin and Charng 1990; Simmons 1991). Even economists have incorporated the notion of regard for others in their models (for example, trying to explain decisions to contribute to charitable causes; see, e.g., Schokkaert 2006 for an extensive review of this literature) and in behavioral economics (e.g., in understanding non-equilibrium behavior in experimental markets, public goods, ultimatum, and dictator games; for reviews, see Camerer 2003 and Fehr and Schmidt 2006).⁶

⁴ Darwin’s “survival of the fittest” doctrine suggests that self-interested organisms will have the greatest fitness (or chance of survival): “natural selection appears to be a process that promotes selfishness and stamps out altruism” (Sober and Wilson 1998, p. 3). At the group level, Darwin’s doctrine does not fare so well, as Darwin himself noted. Groups in which certain members are willing to engage in altruistic acts heighten the group’s overall fitness, suggesting there is some evolutionary advantage to altruism within groups. Here, note that *altruism* as it is defined by evolutionary biologists does not require intention – merely an act by which an individual organism “increases the fitness of others and decreases the fitness of the actor” (Sober and Wilson 1998, p. 17). For a review of the evolutionary biologists’ approach to altruism, see Sober and Wilson (1998).

⁵ This research on why people offer help (or fail to offer help) to others was stimulated by the Kitty Genovese incident, in which a young woman was brutally attacked on the street, in view or within earshot of at least 38 bystanders, and was eventually killed. Not a single bystander intervened. See Dovidio et al. (2006, p. 19-20) for a discussion. Prosocial behavior incorporates a wide variety of acts, including *helping* (in which an individual performs an act that benefits someone else), *altruism* (which, in Dovidio et al.’s formulation, requires benevolent intention and assistance provided without the expectation of benefits to the self), and *cooperation* (where more than one individual works to produce a common good that is beneficial to more than a single actor).

⁶ In their stunning set of cross-cultural experiments in fifteen small-scale societies, Henrich et al. (2004) report that “there is no society in which experimental behavior is even roughly consistent with the canonical model of self-interested actors” (5).

In political science, sustained research on altruism is harder to find. Kristen Monroe's (1998) remarkable work on Jewish rescuers during World War II has provided the field with the most comprehensive, and most moving, depiction of altruism (but, ironically, the protagonists themselves would probably have disagreed with the notion that they were engaging in *political* acts). The political science literature, generally, has focused on the applicability, reach, and limitations of the self-interest principle. Where self-interest fails, a variety of other considerations come to the forefront, including partisanship, group membership, values, and ideology. A general concern for others and a willingness to sacrifice for others – *altruism* – has held a substantially less central role in political science – and we think this is a mistake.⁷

It is a mistake because altruism can be observed in a wide range of contexts (Fehr and Fischbacher 2003; Piliavin and Charng 1990). As such, we think its consequences should be observable in political life as well. We argue that altruism, which we define as the willingness to pay a personal cost to provide benefits to others,⁸ is a critical component of the calculus of participation

⁷ Work by Wilson and Banfield (1963, 1964, 1971) is relevant here, although the specific term “altruism” is not used. Instead, Wilson and Banfield suggest that individuals are either “public-regarding” or self-oriented in their dispositions towards politics, as evidenced, say, by support for public good provision or willingness to pay taxes for the provision of public goods that benefit others.

⁸ Defining altruism is a subject of ongoing controversy – one we do not intend to resolve here. Some scholars require motivation, intent, and sacrifice; one foundational definition defines altruism as “behavior carried out to benefit another without anticipation of rewards from external sources” (Macaulay and Berkowitz 1970, p. 3). Some definitions require a successful outcome for the target; others merely intent. Others say an altruistic act is any act in which “the actor could have done better for himself had he chosen to ignore the effect of his choice on others” (Margolis 1982, p. 15), thus an altruistic act “need not have zero or negative value to the actor” (Margolis 1982, p. 15). Some equate altruism with any form of other-regardingness (including group-based preferences – Margolis 1982). Others restrict altruism to refer to a willingness to help anyone, regardless of who they are (Monroe 1998). Finally, some definitions of altruism require that the motivation be *strictly* other-oriented: acts that benefit others but driven by egoistic motivations (say, alleviation of guilt, or feeling better about oneself, or mood maintenance) do not count as altruism (see, e.g., a discussion by Simmons 1991, p. 6). Andreoni's (1990) discussion of “pure” and “impure” altruism allows for this distinction: under pure altruism, individuals “care about the well-being of others” (Meier 2006, p. 18). For impure altruism, individuals are motivated by the “warm glow” that they themselves receive from conducting the altruistic act: “People care not only about the utility of the recipient but receive some private goods benefit from their pro-social behavior *per se*” (Meier 2006, p. 19). For a parallel discussion from the psychological literature, see Karylowski's (1982) typology of “exocentric” and “endocentric” sources of altruism. The former refers to concern for others; the latter to concern for the self.

A characteristic of altruistic behavior (which makes it distinct from, say, group favoritism) is that altruistic individuals do not generally restrict their altruistic actions to those that will benefit specific groups. Altruists tend to identify with humanity generally rather than any specific subgroup (Monroe 1998).

and is missing in traditional self-interested models. Models of participation assuming only instrumental self-interest posit that individuals are expected to participate in order to secure a benefit, B , if their preferred outcome is realized. However, the probability, P , that a given individual will affect an outcome is generally extremely small. Thus, it is typically the case that the individual cost, C , of participating (e.g., time and effort) is greater than the expected benefit of participation: $C > PB$. In this typical case, rational and purely self-interested individuals will not participate; clearly, this prediction contradicts the observed phenomena of large scale participation.^{9,10}

We argue that the policy outcomes of political actions do affect individual decision-making. A growing number of scholars (Dawes and Fowler 2007; Edlin, Gelman, and Kaplan 2007; Feddersen and Sandroni 2006; Fowler 2006; Fowler and Kam 2007; Jankowski 2002; Jankowski 2004) are explicitly including in the calculus of participation the argument that an individual cares about the impact of policies on others as well as themselves. Although a single participatory act may have little effect on a political outcome, the number of people who benefit may be quite large. Thus, those who exhibit a sufficient degree of concern for the welfare of others may be willing to engage in costly political participation. Moreover, as people become more concerned for the welfare of others, they should experience greater benefits when political outcomes portend improvements for the welfare of others generally. Thus, altruists will generally be more likely to participate than individuals who are self-interested.

We see the inclusion of altruism into the calculus of participation as more than simply adding a new variable to an existent model. Including altruism in the calculus represents a fundamental theoretical shift away from the self-interest axiom, which has dominated models of participation since their inception in our discipline. We believe that incorporating altruism into the

⁹ Riker and Ordeshook (1968) proposed a modification of the related “calculus of voting” by introducing a D term to capture the benefit to the self of fulfilling one’s personal “duty.” This approach specifies that individuals gain utility through the expressive act of participation. In this model, the participatory act is not instrumental; that is, utility derived from fulfilling a duty is unrelated to the policy outcome and the benefits it might import.

¹⁰ This is typically referred to as the paradox of voting, but its properties extend easily to other political acts.

way we think about individual participation in politics is not a final tweak to the canonical model, but rather the first step towards a modern, realistic, and predictive successor to the self-interested model.

Further, we believe that the role of altruism in political participation is context-dependent. We argue that political outcomes can have two effects: (1) they can change the average level of welfare of members of the polity, inducing a societal “net benefit” and/or (2) they can favor particular social and political groups, transferring resources from one part of the society to the other. When altruists believe outcomes affect the average level of welfare in the society, they may believe their actions have the potential to make a large group of individuals better off. Under these conditions we expect altruists to participate more than egoists. However, when they believe that political outcomes have no effect on net welfare and are merely redistributive, then they may believe their actions will make some better off at the same time they make others worse off. Consequently, under these conditions we do not expect to see a distinction between altruists and egoists. Thus, the connection between altruism and political participation may depend upon how the outcomes of political contests are understood.

FINDING ALTRUISTS AMONG DICTATORS

Our study contributes to existing empirical work by adopting an innovative measure of altruism and expanding the population of study beyond convenience samples of undergraduates. Previous attempts to examine the relationship between other-regarding behavior and participation have relied on questions in the National Election Study (NES) pilots. Knack (1992) creates an index of “social altruism” from questions about charity, volunteer work, and community involvement on the 1991 NES Pilot Study and finds a positive relationship between the index and voter turnout. However, the questions used in the index are very close to those used by scholars who argue that the *civic skills* derived from organizational involvement (not the altruistic motivations that lead to it) enhance political participation (Verba, Scholzman, and Brady 1995). Jankowski (2004) finds a relationship between voter turnout and “humanitarian” norms from questions on the 1995 NES Pilot Study. For example, turnout correlates with answers to the question “One of the problems of

today's society is that people are often not kind enough to others.” These questions certainly reflect expectations about the altruism of others, but it is not clear how they relate to the respondent's own willingness to *bear costs* to provide benefits to others.

While the findings in Knack (1992) and Jankowski (2004) are supportive of the relationship between altruism and political participation, they both rely on respondents' *expressed* preferences for helping others. In neither case do respondents actually experience a cost in order to give a benefit to someone else. In contrast, preferences for helping others are *revealed* in what experimental economists call the “dictator game” (Forsythe et al. 1994). In this game, the experimenter gives player 1 a certain amount of money and then asks the subject to divide that money between herself and player 2. If player 1 is motivated only by her own economic gain, she should keep all the money for herself and allocate nothing to player 2. However, this is not what players normally do. In a survey of dictator game results, Camerer (2003) shows that the mean allocation to player 2 ranges from 10% to 52%. Anonymity conditions tend to decrease the mean allocation, but even in the most anonymous treatments (Hoffman et al. 1994) about 40% of the allocations still exceed 0.

Nearly all dictator games are played among students (Camerer 2003). One exception to this rule is work by Henrich and colleagues, where they have taken the dictator game (and other games from experimental economics) to the vast reaches of the globe (Henrich, et al. 2004). They find that while students from different cultures seem to play these games in similar ways, nonstudent behaviors differ significantly across cultures.¹¹ In particular, mean allocations to the anonymous recipient tend to be higher in cultures that have market economies. Our study provides us with a unique opportunity to contribute to knowledge in this domain, by identifying whether and to what extent differences in dictator game behaviors emerge across students and nonstudents in the United States.

¹¹ For example, the modal offer among university students in dictator games is zero. In the three societies where the dictator game was played by college students, “few or none of the subjects... offered zero” (Henrich et al 2004, p. 27).

Subjects in our study consist of 112 non-student citizens residing in Yolo County, California. These individuals were recruited at Farmers' Markets and grocery stores in Davis and an adjoining town, from February through May of 2006. The sampling frame was restricted to citizens over the age of 18 with a permanent residence in Yolo County. Upon approaching the booth, potential subjects were asked if they were residents of Yolo County. They were asked to provide a name, and the researcher looked up the name to determine whether the individual had voted in the previous special election, was registered but did not vote in the previous special election, or was not registered to vote in Yolo County. The subject was classified as one of these three types, and assigned a subject identification number to indicate which "type" they were. These subject identification numbers were written in invisible ink and were unnoticeable from the subject's point of view. Only the researcher knew which "type" the individual was.

Subjects then received a folder containing a set of written instructions. First, they were instructed to play an anonymous version of the dictator game. Each subject received two opaque envelopes. One contained ten one-dollar bills, and the other was empty. They were instructed to decide how many one-dollar bills they would like to share with an anonymous individual and to put those one-dollar bills into the "small envelope." Subjects were told that their decisions were completely anonymous and that the anonymous recipient would never be able to find out the subject's identity. They were also informed that they would be returning the small envelope to a clear plastic box on display (it contained many, many envelopes). There was no apparent identifying information of any kind on the small envelope, in order to maximize subjects' sense of anonymity in playing the dictator game. After playing the dictator game, subjects then completed a brief questionnaire. Again, to maximize conditions of anonymity, no identifying information of any kind appeared on the survey. Each subject received \$5 for participating in the study, in addition to whatever they chose to keep for themselves from the dictator game. The complete instructions appear in the Appendix.

Complete anonymity in playing the dictator game and in filling out the surveys would have made it impossible for us to conduct individual-level analyses, however. As we mentioned, there

was no *apparent* identifying information on the dictator game envelopes nor on the surveys. To enable us to match the dictator game behaviors with the survey responses, subject identification numbers were attached to the dictator game envelopes and to the survey responses in invisible ink.

Subjects in this study were more heterogeneous than student samples used in previous work (citations omitted). They ranged in age from 23 to 82, with a mean age of 40. About 58% of subjects were female; 75% were white. Despite the attempt to recruit from all walks of life, the subject pool reflects the fact that some recruitment occurred in a college town: 38% of our subjects had graduate degrees and 41% had bachelor's degrees.

Figure 1 displays the distribution of dictator game behaviors among our sample. The distribution is trimodal – a bit out of the ordinary compared with previous research. Previous research has typically found modes at 0 and at 5, but not at 10 (Camerer 2003). But, previous research has also almost exclusively relied on student samples. Hence, with this design, we reveal slightly different patterns of giving, using a nonstudent sample.

FIGURE 1 ABOUT HERE

Table 1 provides pairwise correlations between dictator game behaviors and demographics available in the questionnaire.

TABLE 1 ABOUT HERE

We see that only two correlations are statistically distinguishable from zero: women give more than men (which is consistent with existing literature – Eckel and Grossman 1998),¹² and individuals with higher incomes give more than individuals with lower incomes (which contradicts findings in student populations where high income individuals tend to give less – Carpenter, Verhoogen, and Burks 2005).¹³

¹² But see Andreoni and Vesterlund (2001), who explore the gender dynamics of price elasticities.

¹³ Higher rates of giving in our sample might be consistent with the possibility that altruism functions as “a luxury good, being chosen with proportionately greater frequency as resources rise” (Mansbridge 1990a, p. 259). The argument is similar to that made for post-materialist values (Inglehart 1971). Note, though, that altruism still emerges among those who are not well-off; Carpenter, Verhoogen, and Burks (2005) report that students who come from families with higher incomes tend to give less in the dictator game. See Mansbridge 1990a, p. 259 for a discussion of other exceptions.

BUT IS IT REALLY ALTRUISM?

Excess giving in dictator games is a replicable empirical regularity. Scholars offer several explanations for this excess, including reciprocity, social desirability, and fairness. On the notion of reciprocity, Hoffman, McCabe, Shachat, and Smith (1994) and Hoffman, McCabe, and Smith (1996) argue that excess giving occurs in order to satisfy norms of reciprocity. Dictators give to others because future rewards are contingent upon the individual's "social reputation as a cooperative other-regarding person" (Smith 2000, 84). Dictators thus give more than would be expected because they are concerned that appearing "greedy" will decrease the likelihood that they would be invited back for more experiments, or they are concerned with other negative consequences for themselves. To dispute this reciprocity argument, Johannesson and Persson (2000) manipulate the target recipient in a dictator game, specifying that the recipient is one of the other subjects recruited for the study or a randomly selected individual from the general population. They argue, "If donations in dictator games are motivated solely by reciprocity, donations should therefore drop to zero with this experimental treatment" (138). Johannesson and Persson are unable to reject the null hypothesis of no difference between the two groups, which suggests that excess giving in the dictator game cannot be ascribed to reciprocity on its own.

We designed our study with this concern in mind. Subjects were explicitly told that the recipient would be an anonymous individual in a given city. Subjects were also told that their donations were anonymous and that the anonymous individual would never know their identity. Further, subjects completed the dictator game behind a screened in table, and they dropped their small envelopes into a clear box that also contained a pile of other small unmarked envelopes. They were completely unaware that we would be able to link back their behavior in the dictator game with their individual-level survey responses.

Results from the literature on giving in the dictator game indicate that, while several factors might explain giving, dictator game allocations may be a good proxy for individual altruism.¹⁴ Indeed, two of the leaders in the field, Colin Camerer and Ernst Fehr (2004) assert that “Dictator games measure pure altruism” (p. 73). The well-being of others is probably more important to a person who chooses to give \$2 than one who gives \$0. In fact, the utility function used in Andreoni and Miller (2002) to explain behavior in the dictator game yields a monotonic relationship between the equilibrium allocation in the dictator game and the weight a player places on the other player’s utility. In other words, the more a player cares about the well-being of others, the more she will allocate to the other player in the dictator game.¹⁵

The altruism explanation suggests that dictators give to others because they want to improve the well-being of other individuals, even when doing so impinges on their own material interests. For our part, we included a set of questions to improve our ability to ascertain whether dictator game allocations can be understood as tapping a disposition for altruism. Each of these questions is phrased very generally to enable us to establish criterion validity: that our measure of altruism correlates with what it should theoretically be related to.¹⁶ We constructed an additive scale based on responses to four items that represent humanitarianism, which Feldman and Steenbergen (2001) define as “the belief that people have responsibilities toward their fellow human beings and should come to the assistance of others in need” (659). The four items are:

¹⁴ Another explanation for excess giving is that subjects do not understand the game and are just making random allocations. Andreoni and Miller (2002) address this concern by examining within-subject patterns of choices in their series of dictator games with different payoffs. They find that 98% of the subjects make choices that are consistent with the general axiom of revealed preferences across eight treatments, suggesting that most of them understand the game and are not choosing randomly.

¹⁵ This is not to say that the same individual will always play the dictator game in the same fashion. Generosity in dictator game giving is sensitive to a number of manipulable features of the game, including the conditions of anonymity, the recipient of the allocation (whether the recipient is anonymous or known, identified as an individual or an organization, etc.). See Meier 2006 for a discussion.

¹⁶ Criterion validity refers to “the degree of correspondence between a measure and a criterion variable... To assess criterion validity, we need a variable that is a standard to which to compare our measure” (Bollen 1989, 186). Our use of these measures should not imply that we see them as “perfect” standards against which we compare the dictator game allocations. Instead, we think of them as a plausible set of measures that survey researchers would typically use (and have used) to tap regard for others.

“One should always find ways to help others less fortunate than oneself.”
“It is best not to get too involved in taking care of other people’s needs.” (R)
“A person should always be concerned about the well-being of others.”
“People tend to pay more attention to the well-being of others than they should.” (R)
*Where (R) indicates that these variables have been reverse coded in scale construction

As the least squares results in Table 2 demonstrate, dictator game allocations and the humanitarianism scale correlate positively, at 0.285, and in both bivariate and multiple regression, dictator game behaviors significantly predict self-reported humanitarianism scores.¹⁷

TABLE 2 ABOUT HERE

As a second test, we expected altruism to be correlated with responses to humanitarian crises. In our questionnaire, we asked respondents if they had made a personal contribution for Hurricane Katrina¹⁸ relief, if they were considering making one, or if they were not considering making one at this time. People who gave more in the dictator game were more likely to have made a contribution for Hurricane Katrina relief (or to have considered giving) than those who kept more to themselves.¹⁹

These two sets of analyses suggest that our altruism measure is, indeed, correlated with what we theoretically believe it should be related to. If altruism consists of a concern for others’ well-being, then the humanitarianism scale provides one standard against which we can probe the criterion validity of dictator game behaviors. Dictator game behaviors significantly predict

¹⁷ The scale ranges from 0 (least humanitarian) to 1 (most humanitarian), with a mean of 0.78, standard deviation of 0.17, and Cronbach’s $\alpha = 0.73$.

A similar significant relationship between dictator game giving and humanitarianism items is reported by Fong (2007), who correlates *N*-player dictator game giving by student subjects with items that are similar (though not identical) to those that we use.

¹⁸ Hurricane Katrina occurred in August of 2005, and approximately six months before our study began.

¹⁹ The results of an ordered probit regression indicated strong linearity in the thresholds and an analysis of deviance and AIC comparing least squares to ordered probit indicated that we lose efficiency by including the extra parameters necessary for ordered models. In other words, the linear model fit the data better than the ordered model. As such, we present least squares results in Table 2 and throughout (linearity in the thresholds and lower deviance and AIC held for all analyses of discrete ordered outcomes). The fact that linear models fit better in *these cases* is not to say that linear models are generally appropriate for analyzing multiple category ordered outcomes. As a rule, they are not. It should be noted that we could never have known that linear models were appropriate in this case without having analyzed ordered models first.

endorsement of humanitarian norms. The same story applies for the Hurricane Katrina question. Hence, our tests provide new evidence to suggest that dictator game behaviors tap altruism.

ALTRUISM AND POLITICAL PARTICIPATION

Our next intention is to establish a baseline relationship between altruism and political participation. This work contributes to existing literature because few studies have analyzed dictator game behaviors as covariates to predict political participation. The studies that do identify a relationship between dictator game behaviors and voting (Fowler 2006) or participation more generally (Dawes and Fowler 2007; Fowler and Kam 2007) rely primarily on student samples. While results based on student samples may replicate in nonstudent samples, empirical evidence one way or the other is hard to find.²⁰ This paper provides such evidence.

Our dependent variable consists of an additive scale of nine political acts. These political acts include both electoral (contributed to or worked on a campaign), governmental (contacted a public official; participated in a non-work-related protest; contributed to a political organization; been a member of a political organization), and community (been a member of a local board; attended local meetings; worked with others in the community) participation.²¹

Subjects are asked to indicate which acts they have participated in, within the past two years. We begin with a simple model that regresses political participation on altruism, and then we add a series of control variables commonly found in the literature on political participation (see, e.g., Verba, Schlozman, and Brady 1995).

TABLE 3 ABOUT HERE

²⁰ For an extended discussion of how student samples may be problematic, see Sears (1986). For a more elaborate discussion of the issues that researchers should weigh in determining which samples to study, see Kam, Wilking, and Zechmeister (2007).

²¹ Although some participation researchers argue for analyzing not just the quantity of participation but the type of participation (e.g., Leighley 1995), many other participation researchers (e.g., Verba, Schlozman, and Brady 1995) analyze an individual's underlying propensity to be politically engaged, and, hence, they construct indices of participation based on disparate acts. Existing literature thus gives us some justification in combining the participation variables into a single dimension. The additive scale ranges from 0 to 9 acts, with a mean of 3.13, standard deviation of 2.42. For the nine items, Cronbach's $\alpha = 0.78$. Principle factors analysis yields an eigenvalue for the first factor of 2.62. The second factor trails far behind, at a value of 0.49, falling below the Kaiser criterion of 1. We conclude that the items can, indeed, be combined into a single scale.

As shown by the OLS estimates in Table 3, our measure of altruism strongly predicts political participation. This effect is substantial in the bivariate case and withstands the inclusion of a series of control variables.²²

Our design also enables us to determine the extent to which there is added-value in including dictator game behaviors, compared with the more easily implemented self-reporting questions on humanitarianism and charitable giving. How well do the dictator game behaviors perform, compared with the self-reported measures of humanitarianism or Katrina contributions instead, in predicting political participation? To find out, we re-estimated our models, substituting the humanitarianism scale and Katrina contribution response for the dictator game behaviors, and then substituting the Katrina contribution for the dictator game behaviors.

TABLE 4 ABOUT HERE

The results in Table 4 show that humanitarian norms significantly predict political participation. Katrina contributions are positively, but not significantly, associated with political participation. Most importantly, when all three are included in the model that predicts political participation, only the coefficient on dictator game behaviors remains statistically distinguishable from zero. This model attests to the added-value obtained from looking to a less conventional measure of altruism. Our dictator game measure requires respondents to sacrifice some material benefits to the self in order to help an anonymous other. As such, it is less prone to the problem that “talk is cheap.” In other words, it is easier for the less altruistic to make themselves look more altruistic when it comes to humanitarian norms and of charitable contributions – doing so is an essentially costless act. Dictator giving, even in the low-stakes game that we created, provides additional discriminatory power – it is harder for the less altruistic to dress as altruists when it means

²² Part of our contribution is examining dictator game behaviors among a non-student sample. In order to go beyond captive student samples and to entice non-students to participate in the study, we felt it necessary to design a very brief questionnaire. This tradeoff produces an admittedly short list of controls that omits several covariates that might be both related to altruism and predictive of participation (e.g., information, civic skills, efficacy). We note that Fowler and Kam (2007) analyze a similar set of variables (drawn from a student sample) and show that the inclusion of information, civic skills, efficacy (among other control variables) does little to the substantive and statistical significance of altruism in predicting political participation.

immediately depriving themselves of cash in-hand. On the whole, respondents will appear more altruistic when responding to attitudinal questions than to the dictator game because egoists will be pressured to give the socially desirable response for the attitudinal questions but will feel cross-pressured by self-interested motives when it comes to the dictator game.

Our findings suggest that the positive relationship between political participation and altruism, as measured through dictator game behaviors, holds beyond the “narrow database” (Sears 1986) of student samples. With this sample of nonstudent adults, we find that altruism significantly predicts political participation across an array of acts. Moreover, dictator game giving provides independent leverage in predicting political participation, even when more conventional measures of other-regardingness are controlled.

ALTRUISM, TURNOUT, AND POLITICAL CONTEXT

So far we have demonstrated the criterion validity of dictator game behaviors: that dictator game allocations correlate with conventional measures of other-regardingness. We have also shown that altruism predicts participation across a wide-ranging series of acts, where individuals are reporting on past behavior within the last two years. We have contributed to existing research by demonstrating that findings derived from student samples replicate handily in a non-student sample. Finally, we have found that dictator game behaviors make an independent contribution to explaining variation in political participation – a contribution that is unmatched by self-reported measures of humanitarianism and charitable giving.

We designed an aspect of our study to enable us to gain purchase on an additional research question, one that focuses on the extent to which features of political life resonate or repulse altruists and egoists. In so doing, we are extending existing theory; we seek to elaborate upon the simple question of whether or not altruism predicts participation, to examine the conditions under which altruism does or does not spur action in political life. As such, this theoretical extension aims to build a more comprehensive model of political participation – one that incorporates both individual predispositions and political context.

To do so, we took advantage of an unusual election. Recall that when subjects approached the booth to participate in our study, the researcher identified their turnout status in the November 2005 special election held in the state of California. Each subject was assigned a subject identification number that indicated whether they had voted, were registered but had not voted, or were not listed on the county voting rolls. While the special election featured some state-wide ballot propositions (each of which failed, most by a landslide) and a local school board election, the centerpiece of the election was a local ballot proposition called Measure X. In the city of Davis, turnout on Measure X was quite high for an off-year election: 60.7%, though comparable to the turnout in the October 2003 California Recall election (68%) and comparable to turnout in the 2002 midterm elections (61%).²³

Measure X asked voters to determine whether a parcel of farmland should be rezoned for residential and commercial use. Developers proposed to build just under 2,000 residential units and a set of shopping centers on a 400 acre plot of land. Measure X was a serious and highly divisive political issue. It received front-page lead story attention in the town's local paper nearly every day in November leading up to the election, as well as five days in October and four days in September. It was the single most expensive political campaign ever run in the city of Davis (*Davis Enterprise*, 11/2/05). It generated far more letters to the editor than any other issue at stake in the election: in the week preceding the election, excerpts from 95 letters *just on Measure X* were printed in the paper.

Measure X supporters and opponents lobbed an array of arguments back and forth; most of these focused on who would stand to gain and who would stand to lose as a consequence of the proposed development. One central concern in the city of Davis is affordable housing: the median home price at the time was \$540,000. Supporters of Measure X pointed out that at least one percent

²³ To preserve anonymity, the specific subject identification number was never attached to an identifying name. Instead, subjects were assigned ID numbers in the 100 series (e.g., 101, 102, etc.) if the county listed them as having voted in the 2005 November special election; in the 200 series if the county listed them as registered but not having voted; and in the 300 series if they were not listed on the rolls. In hindsight, had we attached an identifying tag between the subject's name and the ID number, we would have been able to validate voting behavior in previous elections. Unfortunately, our design does not enable us to go beyond the November 2005 special election.

of the developed homes would be affordable housing units (which would be available at a rate of fourteen units per year, over the course of ten years). Opponents of Measure X countered that any affordable housing units would be dominated by large, million-dollar homes. The local paper's most prominent columnist and political pundit noted that even if affordable housing units were made available in the new development, "the average \$667,000 Davis homeowner is scared to death that a home comparable to his may be built ...for \$400,000" (*Davis Enterprise*, 11/8/05). The columnist went on to point out that the more affordable the units in the new development were, "the more homeowners will vote against the project and the more renters will vote in favor..." (*Davis Enterprise*, 11/8/05). On balance, the city's assessment of Measure X was that the impact of the developed housing was "fiscally neutral" (*Davis Enterprise*, 9/21/05), and the City's Financial Director was paraphrased as advising voters to evaluate the project "for its amenities rather than what it might do to the city budget" (*Davis Enterprise*, 10/5/05). In other words, there was no consensus on whether voting for or against Measure X would produce a societal benefit.

Another issue of contention concerned the environmental impacts of the proposed housing development. Supporters of Measure X argued that the environmental impacts would be mitigated in various ways, for example, through the use of solar energy in the developed homes, the protection of wetlands, the construction of bike paths to minimize car use; the key designer of the Measure X project had received Sierra Club endorsement and international acclaim for the environmentally friendly design of a prior, smaller-scale project in the 1970s. Opponents argued that the environmental impacts were negative due to worsened air quality and increased traffic experienced by those living near the proposed development; further, the local Sierra Club took a stand against Measure X. Strong arguments existed on both sides, and there was no clear sense of whether Measure X would hurt or harm the environment.

A key campaign event occurred one month prior to the election, when Trader Joe's, a well-known West-Coast based specialty food store, announced it would set up shop in the proposed development. Homes in the town were blanketed with wine-bottle-shaped flyers proclaiming that Trader Joe's was coming to Davis. The city had been courting the food store for several years, to no

avail. The local paper's most prominent columnist wryly remarked: "Here comes Trader Joe's ... no, I am not making this up... but yes, there is a catch... the catch is, if you want a Trader Joe's in Davis, you have to vote "YES" on Measure X" (*Davis Enterprise*, 10/6/05). Another element to the Measure X campaign, then, was a promise of clear benefits for the self-interested (foodies obsessed with Trader Joe's) in the town. This, too, makes the stakes of Measure X quite distinct from typical political contests.

The campaigns for and against Measure X fought over who would stand to gain and who would stand to lose. Many of the gains would be experienced by people who eventually might be candidates for residing in the proposed development; many of the losses would be experienced by people living near the proposed development. Nearly every argument about potential benefits to the public was countered; as one local columnist summarized: "[Measure X] is a very mixed bag" (*Davis Enterprise*, 10/25/05). Much of the debate was distributive in nature: about how the proposed development would shift benefits to some individuals at a cost borne by others. The League of Women Voters, which took a public position on all of the statewide propositions and has regularly endorsed national, state, and local candidates, publicly stated that it took no position on Measure X. The local Audubon Society, similarly, publicly stated that it took no position on Measure X. Additionally, the campaign included key themes that would trigger self-interested considerations. The fact that a "Yes" vote would open the door to Trader Joe's locating in town provided a clear opportunity for individuals to translate self-interested preferences into their decision of whether and how to vote. And, the specter of more affordable housing highlighted different costs and benefits for homeowners and renters. As a local political pundit predicted: "There is a large, very silent group of voters who are thinking with their pocket books. No one will admit to such a selfish motive, but trust me, it's out there. The size of this voting bloc will determine whether Measure X passes or fails" (*Davis Enterprise*, 10/19/05). In the end, voters overwhelmingly defeated Measure X, with 41.2% of voters supporting it and 58.7% opposing it.

We are interested in whether the core finding that altruists participate more in political life than egoists holds within a divisive, distributive political context drenched with self-interested

appeals such as the one surrounding Measure X. We suspected the answer would be no, since the political stakes were framed in such starkly redistributive, egoistic ways. To identify the effect of altruism on voter turnout in this election we estimate a model using validated vote as the dependent variable, where a value of one indicates validated turnout in the November 2005 special election, and 0 indicates all others.

TABLE 5 ABOUT HERE

In the bivariate regression in Table 5, altruism is not a significant predictor of validated vote. After including a series of controls, altruism is still not a significant predictor of validated vote. To determine if our results were a function of how we coded the dependent variable, we re-estimated the relationship between turnout and altruism, using two alternative models. Recall that the first version assigns a value of one to all subjects whose vote could be validated and a value of zero to all others. In the next model, we recoded the dependent variable to a value of 0 if registered but did not vote, 1 if registered and voted, with all others dropped from the analysis, on the idea that we might want to examine the propensity to vote among those who already were registered. These results appear in the second set of estimates, and still, altruism fails to predict turnout.²⁴

Finally, we included a self-reported measure of turnout, acquired in the survey. We assign a value of 1 to those who are “sure” they voted, and a value of 0 to all others. These estimates appear in the third set of results, and, altruism continues to be an insignificant predictor of turnout. If our altruism measure were solely a function of social desirability, then we would have expected to see a strong and significant relationship between dictator game behavior and self-reported turnout. This, however, is not the case. While the relationship is positive, it is not distinguishable from zero.

²⁴ Ideally, we would have estimated a selection model to account for the systematic processes that predict (1) registration and (2) turnout. Unfortunately, we lack the requisite measures to properly identify such a model. Sartori's (2003) binary-selection model that allows for identical predictions in both selection and outcome models did not converge.

Moreover, when we restrict the analysis to those who were registered voters, altruism still does not significantly predict self-reported turnout in the special election.²⁵

Notice, too, that we have a hard time predicting voter turnout using these models. All of the bivariate models are insignificant (judging by the p-value on the χ^2 test). However, the addition of individual-level covariates such as age, religious attendance, and partisanship significantly contributes to explaining variation in the dependent variable, across most of the models. This suggests that lack of power is not the issue.

What's the difference? Why does altruism fail to distinguish voters from nonvoters in this special election? We believe there are two possible explanations. The first is that the tenor of the campaign disillusioned and dismayed altruists, turning them away from participating in the election, while it simultaneously drew in egoists. The second explanation is that altruists participated at the "normal" level, but egoists turned out at an unusually high rate.

Our data suggests some gentle support for the first interpretation. The average level of altruism among non-registered subjects is 0.35; whereas the average altruism among registered subjects (regardless of whether they turned out in the election) is 0.43. This difference, while not statistically distinguishable from zero, is consistent with our initial story about altruism and participation in political life in general, altruists are more prepared to participate in political life. However, among those who were registered to vote, the average level of altruism among those who stayed home was 0.46, whereas the average altruism among those who turned out in the special election was 0.42. These small differences, combined with our small sample size, make any statistical conclusions impossible; however, the data are suggestive in this regard. What these results

²⁵ This dependent variable provides us with another opportunity to deal with the question of whether our dictator game behavior largely reflects social desirability rather than sincere regard for others. Because we have both validated and self-reported turnout, we can generate a measure of "misremembering" that reflects whether there is a social desirability bias in the respondent's answer. This measure is coded 1 for respondents who said they voted (but did not) and 0 for all others (those who said they did not vote but actually did are assigned a value of 0 because this is not the socially desirable response). A probit regression that includes dictator game allocations alone yields a coefficient of 0.298, standard error of 0.374, and p-value of ~0.43. Even after inclusion of the series of control variables, dictator game allocations are still not significantly related to social desirability bias.

indicate is that although altruism may provide a general propensity to participate in political life, the nature of political debate may attenuate this relationship.

ALTRUISM AND THE ADVERSARIAL ELECTORAL ARENA

The results reported above are consistent with a story about how political life generally encourages altruists to participate in politics, but particular contexts can attenuate that link. The results might also be interpreted more generally as reflecting the limits of how altruism predicts participation in the electoral system. Fowler (2006), for example, reports that the effect of altruism on turnout in a partisan primary depends upon strength of partisanship. On its own, altruism does not predict turnout in the primary; strength of partisanship provides the lens through which the benefits to electoral contests can be understood.

To determine whether it is the nature of electoral contests or this specific election that hampers the connection between altruism and participation, we re-analyzed the political participation data, categorizing the nine acts into three groups: campaign-based, local issue-based, political organization-based, plus two separate acts: protesting and contacting a public official. We find that altruism does not significantly predict participation in electoral politics (campaign contributions or campaign work). It does, however, significantly predict participating in local issues (attending meetings, working on a local issue, and volunteering on a board), organizational participation (membership and contributions), and it significantly predicts contacting a public official and participating in a protest.²⁶

TABLE 6 ABOUT HERE

Electoral contests are marked by winners and losers, and such political outcomes can be seen as distributive in nature – one side loses, while the other wins. Other political acts may be less

²⁶ We have grouped the nine acts into theoretically relevant categories. In models where we estimated the effect of altruism on each act separately, altruism was not a significant predictor for either of the electoral acts (the probit coefficients are 0.18, s.e. = 0.38, $p \sim 0.64$ and $b = 0.28$, s.e. = 0.43, $p \sim 0.53$ for campaign contributions and campaign work, respectively). Altruism is a significant predictor for two of the three local acts (its effect is moderate though not statistically distinguishable from zero for attending local meetings, $b = 0.41$, s.e. = 0.48, $p \sim 0.39$). It is a statistically significant predictor for one of the two organizational acts (its effect is moderate though not statistically distinguishable from zero for organizational membership, $b = 0.42$, s.e. = 0.36, $p \sim 0.24$).

vulnerable to being cast in distributive terms: working with others on a local issue, or contacting a public official, or belonging to a political organization. These acts are less overtly conflictual, and thus might be more amenable to altruistic motivations.

CONCLUSION

Harold Lasswell (1936) famously noted that politics are about “Who gets what, when, and how.” According to Lasswell, then, the political process is fundamentally defined in distributive terms. This is one view of politics and the political process, but it is clearly not the only one. We believe altruism is an important variable to study *precisely because we think political life is not always viewed this way by ordinary citizens*. For the less skeptical (e.g., the broad class of theorists and empiricists who are believers in the “classical theory of democracy”), political life could be an arena in which political actors work towards the common or public good – or, at the very least, political life might be motivated by considerations beyond the distributive gains accruing to the self.

As such, we began this enterprise with an interest in identifying ways that political participation might be considered instrumental. We did so by considering the possibility that individuals incorporate non-self-interested incentives into their decisions about whether to participate in political life. Our altruism theory suggests that individuals gain utility from political participation when participatory acts provide benefits to others, even when conducting those acts imposes a personal cost.

We have gone beyond existing research by testing the criterion validity of dictator game behaviors. We have shown that dictator game behaviors correlate well with humanitarian norms and charitable contributions, suggesting that dictator game behaviors may, indeed, tap altruism, which we conceptualize as an interest in the welfare of others, combined with a willingness to bear personal costs to improve the welfare of others. We have extended previous research, too, by observing dictator game behaviors among a nonstudent sample and by showing that the findings reported elsewhere regarding the relationship between altruism and political participation replicate beyond student subjects to nonstudents. Altruism, that is, how people play the dictator game, predicts participation across a variety of acts. Moreover, how people play the dictator game

provides an independent contribution, over and above that of self-reported attitudes, in explaining variation in participation. As such, our work illustrates the utility of incorporating measures from behavioral economics into models of participation.

Finally, we extend existing work by suggesting that the effect of altruism might be contingent upon circumstance. By situating our research within an actual political contest, we suggest that in political contests where the stakes are distributive and where it is not clear that either political outcome will garner a net gain to society, altruism does not predict turnout. These results hold whether we use a validated vote measure or a self-reported vote measure. Granted, we have selected a unique case in which to investigate our theory; while perhaps not an inscrutable test case, we suggest that our work satisfies the characteristics of a “plausibility probe,” an analysis that “strengthen[s] the prospects” of a theory, but that requires more rigorous, cross-case testing before the theory can be validated (Eckstein 1975, 112). This study of the special election over Measure X has provided us with a stronger footing for arguing that the relationship between altruism and political participation may depend upon how political stakes are framed.²⁷

Altruism is likely to have broader applications beyond political participation, and our innovative measures might serve other researchers’ purposes in this regard. At a very general level, altruism might have implications for individuals’ understandings of politics and subsequent beliefs about political processes. Altruists may see politics as a forum for the production of policies to improve the public good, and thus they might favor political processes that enhance participation and dialogue, over adversarial rules (Mansbridge 1980/1983). Altruists might oppose policies that are targeted at specific groups and instead favor policies that are more generally applied, much as humanitarians might (Feldman and Steenbergen 2001). Altruists may be more willing to withstand present-day inconveniences to invest in improvements for the future – e.g., in order to protect the

²⁷ An experimental design that manipulates the frame of particular electoral contexts could validate the theory; we strongly encourage such follow-up work.

environment for future generations. Moreover, features of political life (like specific types of political debate and campaign appeals) may suppress or activate altruistic motivations.

Altruism, as we have described it, refers to a general regard for others – regardless of who they are. This, no doubt, is an extreme form of other-regardingness – one extreme point on a continuum of regard, anchored on the one side by concern for the self and anchored on the other by concern for others, generally. Group perspectives— considerations of group-based identity, group solidarity – fall in-between in this view. For the egoist, the “social moron,” to use Amartya Sen’s phrase (1990, 37), the universe encompasses the individual, period; the outside world is a “Warre of every man against every man” (Hobbes 1651/1904, p. 85). Moving further along this continuum, the social world for the ethnocentric is categorized into virtuous ingroups deserving of praise and assistance and dastardly outgroups deserving of disdain and scorn (Sumner 1906/2002). Moving still further along to the end of the continuum, for the altruist, or the “cosmopolitan” to use Nussbaum’s (1996) phrase, all human beings become part of the relevant community or ingroup, and a concern for others, generally, supplants the ingroup/outgroup biases of ethnocentrism. Up to this point, we have treated altruism and egoism as distinct categories – but they are probably better viewed as points on a continuum. Exploring these conceptual relationships – and determining the extent to which and the conditions under which political entrepreneurs, political institutions, and political contexts can activate the predispositions of citizens located along this continuum – would be an important and useful extension to our work. In short, we urge readers to take seriously the notion that when some individuals contemplate political life, they encounter and embrace the notion that political processes and political outcomes are valuable not because of the benefits they promise to the self, but because of the benefits they portend for others.

TABLES

Table 1. Pairwise Correlations between Altruism and Individual-Level Characteristics

	Pearson Correlation with Altruism
Age	0.145
Female	0.189*
Income	0.205*
Education	0.150
Nonwhite	-0.050
Religious Attendance	0.117
Partisanship	-0.011
Strength of Partisanship	-0.015

* $p < 0.10$

All variables coded from 0 – 1.

See Appendix for details on variable coding.

Table 2. Criterion Validity of Dictator Game Behavior

	Predicting Humanitarianism Norms	Predicting Humanitarianism Norms	Predicting Katrina Contribution	Predicting Katrina Contribution
Dictator Game Behavior	0.133*** 0.043	0.125*** 0.044	0.284** 0.117	0.214* 0.117
Age in years		0.038 0.071		0.499*** 0.185
Female		0.017 0.033		0.207** 0.087
Income		0.031 0.052		0.028 0.138
BA Degree		-0.004 0.042		0.060 0.110
Advanced Degree		-0.045 0.047		-0.147 0.122
Nonwhite		-0.008 0.040		-0.116 0.104
Religious Attendance		0.068 0.046		-0.059 0.120
Partisanship		0.223*** 0.069		0.116 0.178
Intercept	0.725*** 0.024	0.543*** 0.063	0.504*** 0.064	0.254 0.166
$p>F$	0.002	0.003	0.021	0.002
N	111	110	111	111

Table entry is the OLS regression coefficient with standard error below.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

Table 3. Dictator Game Behavior and Political Participation

	Political Participation	Political Participation
Dictator Game	0.226***	0.179***
Behavior	0.067	0.067
Age		0.321***
		0.104
Female		-0.033
		0.049
Income		0.076
		0.077
BA degree		-0.003
		0.063
Advanced degree		-0.057
		0.069
Nonwhite		-0.107*
		0.058
Religious		-0.014
Attendance		0.068
Strength of		0.094
Partisanship		0.084
Intercept	0.253***	0.167**
	0.037	0.077
$p>F$	0.001	0.001
N	111	110

Table entry is the OLS probit regression coefficient with standard error below.
 Dependent variable is consists of the number of political acts completed in the last two years.

*** $p<0.01$; ** $p<0.05$; * $p<0.10$

Table 4. Comparing the Effects of Dictator Game Behavior and Attitudes towards Helping Others

	Including Dictator Game Behaviors	Including Humanitarian Norms	Including Katrina Contribution	Combined Model
Dictator Game Behavior	0.179*** 0.067			0.151** 0.070
Humanitarian Norms		0.280* 0.142		0.190 0.145
Katrina Contribution			0.058 0.058	0.024 0.057
Age	0.321*** 0.104	0.314*** 0.107	0.300*** 0.113	0.304*** 0.110
Female	-0.033 0.049	-0.015 0.050	-0.017 0.052	-0.040 0.051
Income	0.076 0.077	0.108 0.077	0.113 0.078	0.076 0.077
BA degree	-0.003 0.063	0.006 0.065	-0.002 0.066	0.005 0.064
Advanced degree	-0.057 0.069	-0.034 0.071	-0.038 0.073	-0.040 0.071
Nonwhite	-0.107* 0.058	-0.111* 0.059	-0.105* 0.061	-0.102* 0.059
Religious Attendance	-0.014 0.068	-0.003 0.069	0.018 0.069	-0.020 0.069
Strength of Partisanship	0.094 0.084	0.046 0.088	0.080 0.089	0.063 0.087
Intercept	0.167** 0.077	0.008 0.122	0.173** 0.082	0.030 0.121
<i>p</i> >F	0.001	0.002	0.001	0.001
N	110	109	109	109

Table entry is the OLS regression coefficient with standard error below.

Dependent variable is consists of the number of political acts completed in the last two years.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

Table 5. Dictator Game Behaviors and Turnout in a Special Election

	Validated Vote All subjects 1 if voted 0 otherwise		Validated Vote Registered voters 1 if voted 0 otherwise		Self-Report All subjects 1 if sure voted 0 otherwise		Self-Report Registered voters 1 if sure voted 0 otherwise	
Dictator Game	0.034	-0.116	-0.195	-0.268	0.362	0.497	0.118	0.404
Behavior	0.327	0.405	0.374	0.472	0.353	0.404	0.412	0.476
Age		0.040***		0.019		0.036***		0.028*
		0.011		0.013		0.012		0.015
Female		-0.027		-0.130		-0.151		-0.329
		0.308		0.369		0.304		0.393
Income		0.136		0.260		-0.821*		-1.444**
		0.471		0.558		0.481		0.601
BA degree		-0.170		-0.063		0.082		-0.208
		0.361		0.414		0.369		0.473
Advanced degree		0.325		0.487		0.326		0.409
		0.412		0.462		0.420		0.507
Nonwhite		-0.304		-0.389		-0.007		0.457
		0.350		0.410		0.347		0.486
Religious Attendance		-1.145***		-0.736		-0.830**		-0.649
		0.433		0.488		0.417		0.522
Partisanship		-1.591***		-2.308**		-1.174		-2.158**
		0.663		0.903		0.828		0.930
Intercept	0.212	0.199	0.684	1.783	0.474	0.186		2.099
	0.181	0.636	0.217	0.825	0.188	0.670		0.924
lnL	-75.832	-56.592	-53.364	-41.646	-64.554	-56.496	-42.274	-35.582
$p > \chi^2$	0.917	0.000	0.603	0.012	0.303	0.070	0.774	0.159
N	112	111	91	90	112	111	91	90

Table entry is the probit regression coefficient with standard error below.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

Table 6. Dictator Game Behavior and Electoral, Local, and Organizational Politics

	Electoral Acts	Local Acts	Organizational Acts	Contact Public Official	Protest
Dictator Game	0.149	0.526***	0.410*	0.806**	0.780**
Behavior	0.190	0.197	0.228	0.392	0.387
Age	0.018*** 0.005	0.013** 0.005	0.003 0.006	0.031*** 0.011	0.009 0.010
Female	-0.240* 0.140	-0.116 0.145	0.067 0.169	-0.408 0.291	0.233 0.288
Income	0.339 0.222	0.018 0.230	0.402 0.267	0.017 0.443	0.075 0.449
BA degree	-0.073 0.178	-0.054 0.184	-0.107 0.214	0.450 0.369	0.258 0.375
Advanced degree	-0.163 0.196	-0.516** 0.203	-0.117 0.236	0.535 0.398	0.234 0.403
Nonwhite	-0.176 0.166	-0.307* 0.172	-0.445** 0.200	-0.509 0.344	0.188 0.339
Religious Attendance	-0.205 0.195	0.208 0.202	0.125 0.234	-0.290 0.405	-0.202 0.395
Strength of Partisanship	0.338 0.295	0.174 0.305	-0.042 0.354	-0.147 0.589	-0.233 0.700
Partisanship	0.296 0.355	-0.004 0.368	0.257 0.427	-0.269 0.714	1.508 0.929
Intercept	-0.375 0.302	0.097 0.313	0.570 0.363	-1.332** 0.618	-2.475*** 0.691
p>F	0.000	0.001	0.003	0.146	0.070
N	110	110	110	110	110

Columns 1-3: Table entry is the OLS regression coefficient with standard error below.

Columns 4-5: Table entry is the probit regression coefficient with standard error below.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$

FIGURES

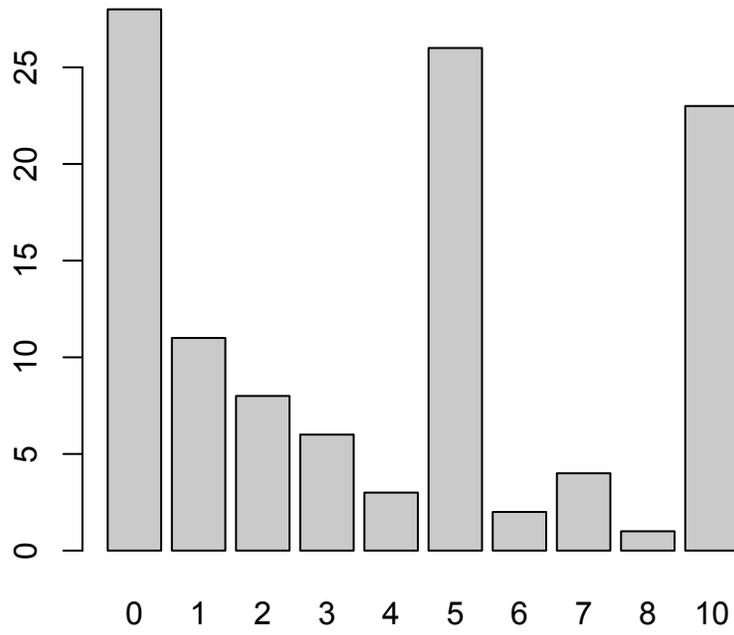


Figure 1. Dictator Game Behaviors

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APPENDIX: DICTATOR GAME INSTRUCTIONS AND QUESTION TEXT

Sacramento Area Voter Survey

Please read these instructions carefully.

In the envelope with these instructions you will find ten \$1 bills. You must choose how to divide the ten \$1 bills between yourself and an anonymous individual. You may keep all, none, or some of the money—the decision is up to you and will be completely anonymous. You will never be able to find out the identity of the anonymous individual, and the anonymous individual will never be able to find out your identity.

If you choose to share some \$1 bills, take that number of \$1 bills and put them back in the small envelope. We will then mail any money that is in the small envelope to a randomly selected individual in the city of Woodland.

Please seal the small envelope once you have finished.

Once you have sealed the small envelope with any money you may have chosen to share, please answer the enclosed survey.

After you are finished answering the enclosed survey,

- Please seal the survey in the large envelope.
- You will place the small envelope in the clear locked box held by the researcher. This box will not be unlocked until the end of the survey, so we will not be able to identify you with your decisions or survey responses.
- Please return the survey sealed in the large envelope to the researcher.

Thank you very much for your time.

Question Text

Humanitarianism Norms (Response Options: Five points, Strongly Agree to Strongly Disagree)

One should always find ways to help others less fortunate than oneself.

It is best not to get too involved in taking care of other people's needs.

A person should always be concerned about the well-being of others.

People tend to pay more attention to the well-being of others than they should.

Additive scale ranging from 0 (Least Humanitarian) to 1 (Most Humanitarian)

Katrina Contribution: Have you personally made a charitable contribution for hurricane (Katrina) relief, are you considering doing so, or is that not something you are considering at this time? (Response Options: Already have made a contribution/Considering doing so/Not considering doing so at this time)

Coded in three categories: 0 (Not considering) to 1 (Already made)

Participation (Response Options: Yes / No):

In the past two years, have you worked as a volunteer—that is, for no pay at all or for only a token amount—for a candidate running for national, state, or local office?

In the past two years have you contributed money—to an individual candidate, a political party, a political action committee, or any other organization that supports candidates or ballot propositions in elections?

In the past two years, have you served in a voluntary capacity—that is, for no pay at all or for only a token amount—on any local governmental board or council that deals with community problems and issues such as a town council, a school board, a zoning board, a planning board, or the like?

In the past two years have you regularly attended meetings of an official local government board or council?

In the past two years, aside from membership on a board or council or attendance at meetings, have you informally gotten together with or worked with others in your community or neighborhood to try to deal with some community problem?

In the past two years, aside from contacts made as a regular part of your job, have you telephoned, written a letter to, or visited a government official to express your views on a public issue?

In the past two years, have you taken part in a protest, march, or demonstration on some national or local issue (other than a strike against your employer)?

In the past two years, not counting membership dues, have you given money to any organizations that take stands on any public issues—either locally or nationally?

In the past two years, have you been a member of any organizations that take stands on any public issues—either locally or nationally?

Additive scale ranging from 0 (No Acts) to 9 (All nine acts)

Self-Reported Turnout: In talking to people about elections, we find that they are sometimes not able to vote because they're sick, they're not registered, they don't have the time, or they have difficulty getting to the polls. Did you happen to vote in the November 2005 special election? (Response Options: I did not vote / I thought about voting this time - but didn't / I usually vote, but I didn't this time / I am sure I voted)

Coded 1 if "sure I voted" and 0 otherwise

Age: What is your age? (Open-ended)
Rescaled to range from 0 (23) to 1 (82).

Female: Are you male or female? (Response Options: Male/Female)
Coded 0 if male, 1 if female

Income: Please choose the category that describes the total amount of income earned in 2004 by your FAMILY. Consider all forms of income, including salaries, tips, interest and dividend payments, scholarship support, student loans, parental support, social security, alimony, and child support, and others. (Response Options: \$15,000 or under/\$15,001 - \$25,000/\$25,001 - \$35,000/\$35,001 - \$50,000/\$50,001 - \$65,000/\$65,001 - \$80,000/\$80,001 - \$100,000/over \$100,000)
Coded in eight categories: 0 (\$15,000 or under) to 1 (over \$100,000)

BA Degree/Adv Degree: What is the highest level of education that you have completed? (Response Options: Less than a High School Diploma/ High School Diploma/ Vocational Training/ Attended College/ Bachelors Degree/ Graduate Degree/ Other)
Two Dummies: BA Degree; Adv Degree; all others serve as suppressed reference group

Nonwhite: Which of the following categories best describes you? (Response Options: Asian /Black /Hispanic-Latino/Native- American/White/Other)
Coded 0 if white; 1 for all others.

Religious Attendance: How often do you attend religious services? (Response Options: Every week/Almost every week/ Once or twice a month /A few times a year/Never)
Coded in five categories: 0 (never) to 1 (every week)

Partisanship: Generally speaking, do you usually think of yourself as a Republican, a Democrat or what? (Response Options: Strong Democrat/Democrat/Independent, But Closer to Democrats/Independent /Independent, But Closer to Republicans/Republican/Strong Republican)
Coded in seven categories: 0 (Strong Republican) to 1 (Strong Democrat)

Strength of Partisanship: *Based on Partisanship question*
Coded in four categories: 0 (Independent) to 1 (Strong Partisan)