

ORIGINAL PAPER

Civic Duty and Voter Turnout

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Abstract We argue that two different sets of considerations shape the decision to vote or abstain in an election—ethical and non-ethical. First the citizen may vote out of a sense of duty. Failing that, she may vote because she has strong preferences about the outcome of the election. Abstention occurs when neither duty nor a sufficiently strong preference is present. The implication is that while duty and preference each have strong positive effects on turnout, they also have a negative interaction effect, since the impact of preference is much weaker among those with a sense of duty. We present a wide array of empirical evidence that systematically supports our claim that the turnout decision is importantly shaped by this causal heterogeneity. Thus a turnout model misses something fundamental if it does not take into account the effect of civic duty.

Keywords Duty · Turnout · Preference · Ethical voting

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...doing such actions, not from inclination, but from duty (Kant 1997 [1785], 11).

Introduction

The study of turnout has long suffered from a profusion of explanations. Teixeira (1992), Geys (2006), and Smets and van Ham (2013) identify dozens of attitudinal and demographic factors that researchers have found to be correlated with turnout. However, two broad explanatory traditions have predominated. The first, based in everyday political experience and in the survey research tradition, has emphasized strength of preference as the cause of turnout. Simply put, those who care a lot about the outcome of an election are likely to vote, and those who are indifferent are likely to abstain (Milbrath 1965, pp. 50–53). The second, given prominence by rational choice theory, has looked to a sense of citizen duty to resolve what seems mysterious in that theory, namely why anyone votes at all (Downs 1957). Our goal in this paper is to link these two explanations, to demonstrate that preference and duty are each powerful determinants of turnout and that the impact of preference is conditional on the presence or absence of duty. ¹

Political scientists have long recognized the importance of preference strength in explaining turnout. People vote when an election seems important and engaging, and they stay home when it does not. Practical politicians, too, have long pointed to voter concern about the outcome as the key to high turnout, and to lack of interest as the principal cause of low turnout. Merriam and Gosnell (1924, p. 159) report these remarks from a Chicago alderman:

Rich, poor, and moderately well-to-do all have their theaters, cafes, movies, social events, sports, etc. They do those things which give them a thrill or a "kick." A dull election, in which there is nothing of the dramatic, does not interest them.

Voting is therefore seen as an "expressive" act. People want to vote if they care about the outcome and wish to express their view about the best party or candidate. This interpretation of elections is so widespread that politicians and journalists routinely use turnout rates as a measure of voter interest.

When opinion surveys became available, political scientists tested this everyday wisdom by asking respondents whether they cared how the election came out. The surveys also targeted antecedents of preference, such as taking an interest in politics. All such measures proved to be powerful predictors of turnout, and have continued to be so to the present day (Berelson et al. 1954, pp. 31–32; A. Campbell et al. 1960, pp. 98–104; Lewis-Beck et al. 2008, pp. 92–94). For many democratic citizens, voting is expressive: They vote when they care enough about the outcome to appear at the polls, but not otherwise.

From the beginning, though, the surveys raised a new issue. Many people care little about elections. Yet a substantial number of the unconcerned vote anyway. Something else drives them to the polls. Undoubtedly, some citizens are mobilized

¹ Voting may have a habitual component (Plutzer 2002; Aldrich et al. 2011), but that does not affect our argument. Even in the colloquial sense of "habit" (a powerful addiction to heroin), no one would find it satisfying to hear that an addict injected heroin because he had a habit of doing so. One needs to know the causes of the habit.



into voting by parties or candidates (Rosenstone and Hansen 1993), but most are not. Instead, researchers found, a sense of civic duty convinced otherwise indifferent or nearly indifferent citizens to vote. Indeed, the relationship of duty to turnout proved to be quite large, of the same magnitude as that for strength of preference (A. Campbell et al. 1960, pp. 105–106). But in *The American Voter* as in other classic studies of turnout, discussion of citizen duty received just a brief mention, or was confined to an appendix (Berelson et al. 1954, pp. 31–32; A. Campbell et al. 1954, Appendix B). The primary emphasis was on strength of preference and the expressive motivation.

A greater emphasis on duty came with the rise of rational choice theorizing. The chance that one person will change the outcome of an election is essentially zero. Hence strength of preference as such is virtually irrelevant. On instrumental grounds, no one should vote no matter how much they care. More precisely, turnout levels should drop until a single vote has a real chance to change the outcome. However, actual turnout rates are far too high for voting to be instrumentally rational in that way. Some other motive is needed. Downs (1957, pp. 36–50, 260–276) and Riker and Ordeshook (1968) suggested that for some citizens, civic duty is at work.

A great many other factors influence turnout, and the literature is far too voluminous to cite here. Researchers have investigated individual attributes such as political interest or resources (classic studies include Berelson et al. 1954, Chap. 13; Lazarsfeld et al. 1944, Chap. 8; Merriam and Gosnell 1924, pp. 183–194; Wolfinger and Rosenstone 1980, Chap. 2; Verba et al. 1995). They have also investigated the costs of voting, such as registration requirements, the ease of getting to the polls, or bad weather on Election Day (for example, Hanmer 2009; Brady and McNulty 2011; Blais 2009; Gomez et al. 2007). However, preference and duty have appeared repeatedly as the two most consequential proximate causes of voting. The role of preference strength is clear and straightforward, since it sits very well with the expressive perspective on turnout (Brennan and Lomasky 1997). The role of duty and its interaction with preference are more ambiguous, and our research intends to fill that gap. Thus in this paper, we focus on duty.

We argue that two different sets of considerations shape the decision to vote or abstain in an election–ethical and expressive. More precisely, either a strong sense of duty or a strong political preference is a sufficient condition for voting. Therefore, some people vote out of a sense of duty and others do not think in terms of duty and vote only if they have strong preferences. The implication is that while duty and preference both have strong positive effects on the propensity to vote, there is also a negative interaction effect, since the impact of preference is much weaker among those with a strong sense of duty.

³ As indicated above, we believe that instrumental considerations do not play a major role, since on instrumental grounds no one should vote unless turnout is expected to be very low. This does not mean that they play no role at all: for instance, turnout seems to decrease slightly when it rains (Gomez et al. 2007; but see Persson et al. 2014, who find no effect in Sweden). Our claim is rather that expressive and ethical considerations are much more important than instrumental ones.



² One academic economist in a highly ranked department said to us, "If I were a second-rate economist, I wouldn't vote." He actually used a more colorful synonym for "second-rate.".

We present a wide array of empirical evidence that systematically supports our claim. We propose an original question designed to provide a more rigorous measure of duty. Using YouGov Polimetrix panel data from the 2008 U.S. presidential election, we show that duty is a relatively stable attitude with little rationalization effect, and we demonstrate the presence of a negative interaction effect between preference and duty. We report a similar negative interaction in American National Election Surveys (ANES), including those with validated turnout, as well as in surveys conducted in Canada and Japan. We also perform placebo tests, which show that duty is not a proxy for some other explanatory variable and that it does not have the same effect on other forms of political participation. We conclude with a discussion of the implications of our findings.

The Duty to Vote

In 29 democratic countries, voting is compulsory; that is, citizens have a legal obligation to vote. In an additional eight countries, the constitution declares that voting is a civic duty (Birch 2009, pp. 14, 35–36). In the same vein, the U.S. Citizenship and Immigration Services explain in their *Citizenship Education and Naturalization Information* document that "the right to vote is a duty as well as a privilege" (see Dalton 2008, p. 28). Citizens in democracies have long shared these views. In 1944, in a National Opinion Research Center survey that asked respondents whether they regarded voting "more as a duty you owe your country or more as a right to use if you want to," 59% chose "duty" against 36% for "right" (Dennis 1970, p. 827). More recently, when asked how important it is for the good citizen to *always* vote in elections on a scale from 1 to 7, the mean score was 6.2, just slightly lower than obeying the laws and not evading taxes (Dalton 2008, p. 30). In one study of the 2000 U.S. presidential election (Annenberg 2010), 71% of respondents agreed or strongly agreed that they felt guilty when they failed to vote.

Outside the U.S., more than 90% of respondents in two Canadian provinces agree that "it is the duty of every citizen to vote" (Blais 2000, p. 95). The percentage is 80% in Britain (Clarke et al. 2004, p. 251). In Japan, over 95% of respondents said that voting is a citizen's duty or something that a citizen should do, according to the 2005 Japanese Election Study. Many other examples exist; we know of no democratic election study that has looked for a duty norm and failed to find it widespread among the citizenry. Nor are these responses induced by survey options. In open-ended interviews about why they vote, the great majority *volunteer* that they feel a strong duty to appear at the polls (Blais 2000, Chap. 5).

Across the world's democracies, a public norm exists that voting is a civic duty. Of course, as with any social norm, some people may strongly adhere to it, while others firmly disagree, or are ambivalent. Many may simply be giving lip service.

⁴ These results come from the 2004 General Social Survey. The question is: "There are different opinions as to what it takes to be a good citizen. As far as you are concerned personally, on a scale of 1–7, where 1 is not at all important and 7 is very important, how important is it to....".



The issue, then, is the prevalence of genuine internalization of the norm, along with the size of the resulting impact on turnout.

Some indication of both prevalence and impact can be obtained from classic studies. Looking at their survey evidence, A. Campbell et al. (1960, p. 156) wrote in *The American Voter* that "the strength of a person's sense of citizen duty has a very great influence on the likelihood of his voting." Riker and Ordeshook's (1968) results (their Table 3) show that duty has a much larger impact on turnout than any of the other variables. The same pattern emerges in studies dealing with political participation in general. Summarizing the literature of his time, Milbrath (1965, pp. 61–64) considered sense of duty to be one of the key attitudes, along with psychological involvement and efficacy, that foster participation.

Civic duty has received less attention in recent decades.⁶ In the wake of measurement issues in its duty scale created in the 1950s, the American National Election Study dropped all but one item from the duty battery after 1980, and it eliminated the last item after 1992. The other long series of surveys on U.S turnout, the Census Bureau's Voting and Registration Supplement to the Current Population Survey, has never had a measure of duty to vote. Without relevant data, most recent studies of U.S. voter turnout have not mentioned civic duty. Yet it has a way of making itself felt in turnout research. For example, duty is apparently absent from *Voice and Equality* (Verba et al. 1995). The term does not appear in the index. Yet the authors report that "civic gratifications" are by far the most commonly reported reasons for voting (their Table 4.1, page 115). Their first example of a civic motivation is "my duty as a citizen."

Similarly, Clarke et al.'s (2004) analysis of the decision to vote (or not) in the 2004 British election includes a variable, "system benefits," which is in fact citizen duty. That variable turns out to have the largest effect on the propensity to vote (their Table 8.9, page 259). Finally, D. Campbell's (2006) *Why We Vote* argues that the main motivation for voting, as well as for many other forms of political participation, is an internalized sense of civic duty.

Sense of duty has been recognized from the very beginning of survey research as an important and widespread motivation for voting. Rational choice theorists have also felt obliged to recognize it to make sense of the fact that many people vote even though their vote will not be decisive. However, in both traditions, "duty" has often functioned as a kind of residual category not worth further investigation, rather like putting down "old age" as a cause of death. The conceptual foundations of civic duty have received little attention. But in the face of its apparent widespread importance, we need to ask how exactly duty matters in the turnout decision.

⁷ It is measured through agree/disagree statements that "it is every citizen's duty to vote in an election" and that "democracy only works properly if most people vote.".



⁵ We are considering only the literature that examines the decision to vote or not to vote at the individual level. There is a separate stream of research that deals with aggregate variations in turnout across countries or over time. (For a review, see Blais 2006).

⁶ There is a substantial literature examining the impact of social pressure on turnout (see especially Gerber et al. 2008), which assumes the presence of a duty norm. The focus of these studies, however, is on how social sanctions contribute to enforcing the norm. Our focus is on how the internalized norm affects voting, independent of pressure.

Preference and Duty

Many citizens' turnout decisions are unaffected by duty. For them, turnout is just a choice, like going out to dinner or attending a play. They may wish to cast an expressive vote, or they may not care enough to do so. Hence conventional utility theory may be used to describe their behavior, just as it is applied to other voluntary acts, and civic duty may be set aside.

Modeling the behavior of those for whom voting is a duty requires something more. One option is to assume that duty is just another factor, providing one more additively separable term in the voter's utility function. This approach leads to appending a duty term to a turnout equation, as in Riker and Ordeshook (1968). The simple additive framework, while sensible enough as a starting point fifty years ago, does not take the concept of duty very seriously. It quickly leads to the criticism that the model accounts for voting by appealing to a preference for voting, hardly a powerful explanation (Barry 1978 [1970], pp. 15–16). More importantly, fulfilling a duty is not like maximizing gratification. Carried out as a duty, voting does not provide a "consumption benefit" in the usual sense of the term. The dutiful person votes because she believes that it is the right thing to do: The good citizen should vote, and thus she feels that she has a moral obligation to vote even if she would not have done so otherwise.

Kant (1997 [1785]) famously posited a "categorical imperative": In choosing among possible actions, one has a duty to choose the act that would be better if everyone chose it. In this framework, one carries out a duty because it is right. One acts regardless of other personal gains and losses from the act. This kind of duty is deontological rather than consequentialist. Put another way, the ethical and nonethical value of an act are not additive. Other factors matter less when one is under an ethical obligation. Hence a different modeling strategy is needed for those citizens who adopt a non-consequentialist sense of duty. We will refer to such citizens as "Kantians," though we recognize that deontological theories are numerous and that not all derive from Kant. Those distinctions make no difference to our argument.⁸

In sum, there are two distinct sets of considerations for potential voters—the ethical and the non-ethical, which leads to two pathways to voting. First, the citizen may vote out of duty considerations. Failing that, she may vote because of her preference strength—an expressive act. (The order in which she considers duty and preference strength makes no difference.) Abstention occurs when neither a sufficiently strong duty nor a sufficiently strong preference is present. The next sections take up the consequences for the empirical study of turnout.

⁹ All the analyses presented in this paper deal with national, high salience elections. However, our argument applies equally well to low salience elections, the only difference being that both preferences and duty are likely to be weaker for lower-level offices. See Galais and Blais (2016b) for a comparative analysis of the role of duty in different types of elections.



⁸ In an earlier version of this paper, we reviewed what contemporary philosophers and formal theorists have said about the duty to vote, and we distinguished deontological duty from concepts with which it is sometimes confused, such as altruism or conformity to a social norm. To save space, that discussion is omitted here but is available from the authors on request.

Measurement Issues

During the 2008 American presidential election, YouGov/Polimetrix conducted a five-wave Internet panel survey of 1200 American citizens, beginning with a baseline survey in December of 2007 and ending with a post-election survey in November 2008.

Using the YouGov survey, we wish to determine which citizens do and do not construe voting as a moral obligation and how this affects their propensity to vote. In doing so, we need to address the social desirability issue. It is a social norm that the good citizen should vote. Hence some may express agreement with the norm without truly adhering to it.

To cope with this concern, we constructed a new question in which duty is contrasted with another widely-shared norm: choice. Freedom is a strongly held value, and so most of us would like to have the choice between doing something and not doing it. Therefore, it makes sense to ask people whether they view voting as something that ought to be done (a Kantian duty) or something that is up to each person to decide whether to do or not (a choice). By offering an attractive alternative to duty, we hope to minimize the social desirability bias associated with the standard measures of duty (Blais and Galais 2016). 10

The exact question wording is the following:

Different people feel differently about voting.

For some, voting is a DUTY. They feel that they should vote in every election however they feel about the candidates and parties.

For others, voting is a CHOICE. They feel free to vote or not to vote in an election depending on how they feel about the candidates and parties. [The order of these two statements was varied randomly.]

For you personally, voting is FIR	ST AND FOREMOST a: Duty
2	Choice
9	Not sure
If respondent chose "Duty"] Ho personally that voting is a duty	
1	Very strongly
2	Somewhat strongly
3	Not very strongly

¹⁰ The format is also preferable to the agree/disagree statement format that is usually utilized to measure civic duty. The latter format has been shown to be plagued with acquiescence bias (Schuman and Presser 1981, pp. 202–230).



It is of course possible for people to construe voting as both a choice and a duty, but the question asks them to indicate what it is 'first and foremost'. We left a "not sure" option, which was chosen by very few respondents.

The fact that responses are equally divided between the 'duty' and the 'choice' options (see below) is reassuring. The standard duty questions usually yield lopsided support for the view that it is the duty of every citizen to vote. It is likely that some of that support is rather superficial and does not reflect the ethical belief that there is indeed a moral obligation to vote. Our question offers a balanced non-duty (choice) option designed to appeal to those who are prone to pay lip service to the public norm of civic duty while not really adhering to it.

The second challenge associated with the measurement of duty is rationalization. Simply put, people may decide to vote or not to vote, and then come to the view that voting is or is not a civic duty, depending on which decision they made (Blais 2000, pp. 109, 112–113; Vavreck 2008). It is therefore important to check for the possibility of rationalization.

We find little evidence of rationalization. In our survey, the mean score on the 0–1 duty scale was 0.45 in January and 0.49 in October just before the election. An unusually exciting race did not, therefore, create many nominally dutiful citizens. Similarly, in the 1972–1976 ANES study, which is the most recent panel in which a duty question was asked, those who abstained in 1972 but voted in 1976 were only 2 percentage points more likely to say that they had a sense of duty in 1976. Those switching in the other direction expressed no change at all. This is consistent with the findings of Galais and Blais (2016a), who report little rationalization in panel studies conducted in Canada and Spain.

We conceive of duty as a relatively strongly held belief that is unlikely to change in the short run for most respondents. (Of course, some may pretend to adhere to the norm, and they may be more inconsistent over time.) To assess this claim, we examine the stability of our duty measure in the CCAP panel survey. For purposes of comparison, recall that Converse (1964) studied attitude stability over a two-year period, finding that none of his eight ANES measures of policy preferences registered a stability correlation as large as 0.5. The median stability was 0.37. In our survey, we measured duty in January, March, October, and in the post-election survey. Table 1 presents the bivariate correlations between the measures at different points in time. Following Converse, we use tau-b correlations to cope with the ordinal nature of the measures and to maintain comparability with his results.

The over-time correlations for duty, which do not take measurement errors into account, range from 0.58 to 0.73, well above those for Converse's ordinary

¹¹ The switching percentages were higher in the 1956–1960 ANES sample, with corresponding switching rates of 11% and 6%, respectively. We are not certain what accounts for the difference, though sampling error may be the culprit: The early ANES surveys were less good than the later ones, and in addition, each percentage is based on a sample of about 100 turnout switchers. All these percentages refer to the most theoretically relevant question in the ANES battery, which asked whether a person who does not care about the outcome should vote in an election. The other ANES duty items were asked only during the 1956–1960 panel, and their switching percentages are similar.



Table 1 Over-time correlations for civic duty and for caring about the outcome (tau-b)

	Duty Jan	Duty Mar	Duty Oct
Duty Jan			
Duty Mar	0.62		
Duty Oct	0.59	0.58	
Duty Post	0.59	0.62	0.73
		Care Jan	Care Mar
Care Jan			
Care Mar		0.62	
Care Oct		0.51	0.52

attitudes. ¹² Duty, as we would expect, is somewhat more stable than caring about the election outcome, as Table 1 shows. Furthermore, the survey shows that on our four-point scale, 70% of respondents gave exactly the same duty response in October that they had given in January. We thus conclude that duty is a generally stable orientation.

We have shown that duty exhibits little rationalization or priming due to the election. Nonetheless, to minimize the problem, we measured civic duty in January 2008. Therefore, we employ a measure of citizen duty taken ten months before the general election. The fact remains, however, that we have only noisy measures of both duty and preference, and thus must allow for the possibility that a respondent claims to be dutiful but has not in fact internalized the norm, and similarly for preference strength.¹³ To do so, we propose a probit model of the turnout decision.

Formally, let \hat{d}_v be the citizen's reported level of duty. Set $d_v = 1$ if sufficient duty is present to motivate the citizen to vote, and 0 otherwise. Let w_v be the citizen's expressive utility for voting net of the cost, and w_a be her value for abstaining. Set $y_i = I$ if the citizen chooses to vote, and 0 otherwise, and let x be a vector of covariates influencing expressive utilities and costs but not duty. Then we show in Online Appendix that under a Kantian approach to duty and an independence assumption about these conditional probabilities, our theory leads to the following statistical model:

$$Pr(y_i = 1|\hat{d}_v, x) = 1 - Pr(d_v = 0|\hat{d}_v)Pr(w_v < w_a|x)$$
(1)

This equation says simply that the probability of voting is one minus the chance of having neither a sense of citizen duty nor a preference strong enough to overcome the costs of voting.

¹³ This specification also allows for those cases in which the citizen actually does have an internalized sense of duty but falls ill or has more important duties on Election Day.



¹² Our test-retest interval is a year while Converse's was two years. However, as our results show, once the length of the interval between surveys exceeds two or three months, the correlations are little affected by the time period between them. Converse (1964) similarly found that correlations over a four-year period were nearly identical to those over a two-year period.

Now take both probabilities in the preceding equation to be probit specifications with linear arguments. That is, denoting by $\Phi(.)$ the standard normal (Gaussian) cumulative distribution function, suppose that the probability of having a sufficient sense of duty is $\Pr(d_v=1|x)=\Phi(\alpha_d+\beta_d\hat{d}_v)$ and the chance of having a sufficiently strong expressive motivation is $\Pr(w_v\geq w_a|x)=\Phi(\alpha_w+x\beta_a)$. Then Online Appendix shows that we may write the probability of voting as:

$$Pr(y_i = 1|d_v, x) = 1 - \Phi(-\alpha_d - \beta_d \hat{d}_v)\Phi(-\alpha_w - x\beta_a)$$
 (2)

Thus the Kantian approach to duty generates a product of probit equations, which can be proven to have a globally concave likelihood function. This equation is our fundamental statistical implication, and when estimated by maximum likelihood, it not only tests our theoretical model but also gives us the power to assess how well our duty measures are working. (For those details, the derivations, and the discussion of alternate assumptions, see Online Appendix.)

Equation (2) may be simplified using the fact that $\Phi(-z)$ is nearly linear in z for probabilities between 20% and 80%. Hence a first-order Taylor series expansion will work well (see Online Appendix), and in the simple case in which there is just one measure of preference strength, Eq. (2) may be written to a good approximation as:

$$Pr(y_i = 1) = \Phi[\alpha + \beta_1(Duty) + \beta_2(Preference) - \beta_3(Duty \times Preference)] \quad (3)$$

This Eq. (3) is just a conventional probit setup with a negative interaction term. That is, the approach to duty we have set out is very nearly equivalent to making turnout in a conventional probit equation depend on duty, preference, and the interaction of duty with preference. This contrasts with the standard turnout models, which contain no interaction term. ¹⁴

Note that the interaction term has a negative sign. ¹⁵ Thus Eq. (3) illustrates in an obvious way what the formal comparative statics of Eq. (2) also imply, namely that if duty is a moral imperative, then non-ethical considerations should matter less for those with a sense of duty. Conversely, for those who do not construe voting to be a moral obligation, the non-ethical factors will appear at full strength. Thus Knack (1994) finds that rain depresses the turnout of those with low sense of citizen duty,

¹⁵ The negative sign is not a ceiling effect: As has long been understood, probit and logit models eliminate floors and ceilings (Winship and Mare 1984, 514). Put another way, it is statistically impossible to generate a negative interaction term in probit or logit unless a substantive interaction exists. However, floor and ceiling effects can occur in linear probability models and other approaches that model probabilities directly.



¹⁴ There are a few studies in which interaction effects are considered. Kittilson and Anderson (2011) examine how the impact of political efficacy depends on contextual factors such as the number of parties and party polarization. Soderlund et al. (2011) show that political interest is more closely connected to turnout in second-order elections. Solt (2008) demonstrates that the impact of inequality on electoral participation is strongest among the poor. One study explicitly looks at how sense of civic duty interacts with interest in politics (Blais and Labbé St-Vincent 2011). These authors do not provide, however, a theoretical justification for this interaction, since they are more concerned with examining how political attitudes mediate the effect of personality traits.

while the impact on those with high duty is nil (statistically insignificant and with the wrong sign). This is just what our approach implies.

In all our applications across a variety of data sets, the close approximation Eq. (3) always fit as well as the theoretical statement given by Eq. (2) and its more sophisticated variants (see Online Appendix). Hence, we use Eq. (3) in the remainder of this paper. We expect large, positive direct effects for Duty and Preference, and a substantial negative coefficient for their interaction. However, the theoretical meaning of those results relies on Eq. (2).

Duty in the 2008 American Presidential Election

We begin the empirical evaluation of our argument with the YouGov/Polimetrix data from the U.S. presidential contest in 2008. Due to panel attrition and missing responses to individual survey items, the usable sample size for our analyses is typically about 900 respondents.

Like most Internet samples, this one is not representative of the U.S. population, and less educated people in particular are underrepresented. Furthermore, conditional on the covariates, the probability of selection of those who voted and those who did not is unequal, so that selection is endogenous. Hence weighting is required (Manski and McFadden 1981; for a readable overview, see Cameron and Trivedi 2005, pp. 817–829). In all the results that follow, we use the YouGov weights, which are inversely proportional to the estimated probability of selection. Weighted mean turnout in the sample was 70%, not far above the 62% rate among eligible American citizens estimated from official vote counts and U.S. Census data (McDonald 2015).

For our measure of preference, we ask respondents how much they personally care who wins the presidential election, with four response categories: not at all, a little, somewhat, and a lot. This item parallels the standard ANES measure, though with additional response categories. The measure has the virtue of simplicity. For this measure, we also have three measurements, one each in January, March, and October. However, a measure of preference must be taken close to the time of the vote. Since proximity to the election is important for meaningfulness, we use the October measurement of caring about the outcome. The response categories and the coding of the question paralleled the duty question.

We begin with Table 2, a weighted cross-tabulation showing the joint distribution of duty in January and caring about the outcome in October.¹⁷ The

¹⁷ To avoid too many near-empty cells in these tables, we have collapsed the bottom two categories of caring about the election and the middle two categories of duty. In the probit specifications, however, we have kept the original categories, since they preserve more information and, as expected, provide a somewhat better fit.



¹⁶ A few weights were very large, occasionally as much as 13 (with the mean weight being close to 1.0). We tried truncating the weights at 3.0 and at 5.0, accepting the biases in hope of better standard errors. We also tried eliminating weighting entirely. The result was too few nonvoters, generally unchanged coefficients apart from the intercept term, no changes in substantive findings, and only slightly better standard errors. We therefore adhere to the original CCAP weights throughout this paper.

	Duty none	Duty weak, some	Duty strong
Pref little, weak	9	1	1
Pref somewhat	10	2	3
Pref a lot	31	13	31
Total	50	15	35

Table 2 Duty and preference distribution in the 2008 CCAP sample (weighted percent of the total sample)

Unweighted N = 978

2008 American election was unusually interesting. Its salience to the voters is reflected in the very high proportion in our sample (75%) who said that they cared "a lot" about who would win the presidential election. The distribution is less skewed with respect to duty. Exactly 50% expressed a sense of duty (35% a strong sense), while the other 50% felt that turnout was a matter of choice.

Table 2 also shows that duty and preference are rather strongly positively correlated with each other. The stronger one's sense of duty, the stronger the propensity to care a lot about the outcome of the election. In other words, many people have both factors impelling them to the polls (D. Campbell 2006, p. 62). As a consequence, there are few people with high levels of duty but weak preferences, and that limits certain inferences from this sample, a topic to which we return below.

Table 3 gives reported voter turnout in November as a function of duty in January and preference in October. The most striking feature of this table is that the effects of duty and preference are both dramatic. For those respondents with no sense of civic duty, strong preference alone is sufficient to raise the probability of voting from 16% to 73%. For those with no strong preference between the candidates, the presence of a full sense of civic duty raises their turnout from 16% to 81%. Jointly, they raise the probability about ten points more, to a greater than 90% chance of voting. These two factors are powerfully associated with turnout. One can also see from this table the huge difference that duty makes among those least inclined to vote, just as the early pioneers of turnout research discovered. Even among those with a strong preference between the candidates, duty raises their turnout by an additional 19 points (73% vs. 92%). (Controlling for other variables does not decrease these effects—see Table 4). American elections would look very different if no one had a sense of duty to vote.

Table 3 Percent turnout by duty and preference in the 2008 U.S. Presidential Election (weighted)

	Duty none	Duty weak, some	Duty strong
Pref little, weak	16	16	81
Pref somewhat	49	91	90
Pref a lot	73	84	92

Unweighted N = 897



	Pref Oct Duty Jan b/se	Pref Oct Duty Oct b/se	Pref Jan Duty Jan b/se	Pref Oct Duty Jan b/se
Preferences	2.19*** (0.38)	2.18*** (0.38)	1.80*** (0.34)	1.95*** (0.43)
Duty	2.05*** (0.64)	3.71*** (0.71)	3.03*** (1.10)	2.41*** (0.76)
Preferences × Duty	- 1.29* (0.76)	- 2.57*** (0.84)	- 2.44*** (1.17)	- 1.83** (0.86)
Age				3.96*** (1.85)
Age^2				- 4.13* (2.18)
Education				1.32*** (0.47)
Interest				0.45* (0.27)
PID strength				0.89*** (0.32)
Constant	- 1.54*** (0.29)	- 1.77*** (0.30)	- 1.24*** (0.26)	- 3.34*** (0.53)
Unweighted N	897	896	1049	839

Table 4 Probit models of turnout in the 2008 U.S. Presidential Election (weighted)

The second notable feature of Table 3 for our purposes is the interaction effect. Duty and preference do not affect turnout additively; their joint impact is only a bit larger than their separate effects. This is the classic sign of a negative interaction, and it is in accord with our understanding of duty: In the presence of duty, preference strength matters less. This negative interaction is not a ceiling effect. It appears powerfully on a probit scale, too, as we now demonstrate. ¹⁸

Table 4 reports various probit specifications for the impact of duty and preference on the vote. Here and in all subsequent tables, explanatory variables are scaled from 0 to 1 for ease of comparison. In the first column, we estimate Eq. (3) without controls. All the coefficients have the expected sign, and their sizes are known with reasonable accuracy. The interaction term is statistically significant at the 10% level; the other two coefficients meet the 1% level. ¹⁹

The probit coefficients and marginal effects in Table 4 and Fig. 1 are substantial, and the implied effects of Duty and Preference on turnout are very large. A respondent for whom Duty and Preference are both absent, for example, is forecast by column 1 to have only a 6% chance of voting, while someone at the top level of both Duty and Preference is predicted to turn out at a 92% rate.

¹⁹ We report the usual two-sided tests to accord with convention. However, they make little sense here. A statistically significant negative coefficient for duty or care, for example, would be interpreted as bad sampling luck or mismeasurement, not as a substantive finding. Hence in the tables, a coefficient marked significant at 10% is actually significant at 5% on a more meaningful, one-sided test.



^{***}Significant at 0.01; **significant at 0.05; *significant at 0.10

¹⁸ We verified the existence of a probit-scale interaction effect in a more robust way. If the sample is divided into subsamples with various levels of Duty (combining as necessary to get minimal sample sizes), and if Preference and Duty interact, then when the model is estimated separately in each subsample, the probit coefficient of Preference should fall across the subsamples as Duty increases. The same is true for the effect of Duty when the sample is subsetted by values of Preference. They both do. Thus the negative interaction term is the data talking, not just the model.

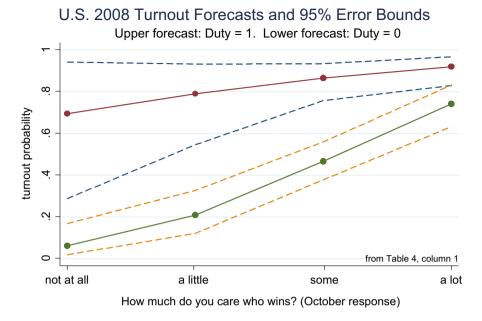


Fig. 1 Duty, preference, and vote

In models with interactions, marginal effects depend both on the coefficient of the variable itself and the coefficient of the interaction term. ²⁰ Figure 1 uses the column 1 estimates from Table 4 to show the forecasted relationship of Care to turnout. (We use Stata's convenient marginsplot command, with standard errors computed by the customary delta method, the default.) In the absence of Duty (bottom lines), Preference raises turnout steadily as it increases. At the highest level of Duty (upper lines), Preference continues to raise turnout as it strengthens, but the impact is much smaller, just as a Kantian interpretation of duty would predict.

The next two columns in Table 4 show what happens when duty is measured at a later time, or preference at an earlier time. The patterns of the coefficients remain the same, with the same negative interaction validated at conventional statistical levels. Measuring duty at election time inflates its coefficient, just as one would expect if some rationalization is occurring. The estimated effect is too noisy for us to be sure how much inflation has occurred, but it does illustrate the advantages of measuring duty more honestly at a quieter time outside the campaign. The opposite effect occurs when preference strength is measured nearly a year in advance (column 3): Its estimated impact declines, as expected. But in each of these specifications, the important effect of duty and preference strength, along with their

²⁰ Kam and Franzese (2007, Chaps. 3, 5, and Appendix B) is a clear recent exposition of how to compute the underlying partial derivatives and their sampling errors in graphs like Fig. 2. However, unlike them, we have chosen to represent marginal effects on the probit scale in Fig. 2 rather than on the probability scale, since only the probit-scale effects are stable across samples when the theoretical model is stable. (See also Brambor et al. 2006 and Berry et al. 2009.).



negative interaction, is clearly in evidence. And the relative stability of the patterns suggests that evidence from less costly cross-sectional surveys taken close to election time, which are common in election research, need not be disregarded even if allowance must be made for some inflation in the apparent impact of duty. We make use of that finding below.

Finally, the right-most column in Table 4 gives a rough-and-ready initial specification test of Eq. (3). Do the duty and preference variables have an actual impact, or are they proxies for other explanatory factors that are usual in turnout research? We add to the probit equation a list of the key variables most often thought to influence turnout so that we can test whether the coefficients of duty and preference are artificially inflated in the initial columns of Table 4. As additional covariates, we use the most powerful, classic correlates of turnout, namely interest in politics, strength of party identification (measured in December 2007), age, age-squared, and education (Berelson et al. 1954, Chap. 2; A. Campbell et al. 1960, Chap. 5; Wolfinger and Rosenstone 1980, Chaps. 2 and 3). We adopt an early measure of party identification to avoid including merely nominal partisans as the presidential race heats up later in the year.

As the table shows, in spite of the noise induced by survey measurement error, our theoretical expectations are met. The coefficients do not change much even with the customary crucial covariates controlled.²² Thus the power of duty and preference, along with their interaction, cannot be dismissed as due to customary confounds being omitted from the specification.²³ The other variables have coefficients in the correct direction and of sensible size. In sum, the 2008 American presidential data are fully consistent with our interpretation of duty and the implied functional form that we have set out.

Placebo Tests and International Comparisons

We have shown that civic duty can be competently measured, and we have adduced empirical evidence that it influences voter turnout in precisely the way it should if some voters think in Kantian terms. The principal issues remaining are the customary tests for hidden bias (for example, Rosenbaum 2002, Chap. 6).

²³ In this and in many other specifications, the impact of being African-American was relatively small, statistically insignificant, and had a negative sign in an election in which black turnout rose substantially, which gives evidence that our key variables are capturing its effect.



²¹ Interest is a three-point scale based on the response to a question about the respondent's level of interest in politics and current events. ("Not sure" was combined with "not much.") Strength of party identification is a four-point scale, from strong to weak to leaning to Independent, based on the classic Michigan item. Age range runs from 18 to 90. Education is the five-point scale provided in the survey. In all cases, skipped or not asked questions were coded as missing. We used interest in October to give it every chance to pick up endogenous short-term campaign effects that might be correlated with duty, though interest measured in January is more meaningful theoretically and actually has a larger coefficient. However, either choice has only the tiniest effects on the duty and preference coefficients.

²² The survey also had a 12-item battery of political information questions. ("Skipped" was coded as "don't know.") The percent answered correctly had only a small, statistically insignificant effect on turnout, and it left the coefficients on duty, preference, and their interaction virtually unchanged.

- (1) Placebo tests. Perhaps there is nothing unique about duty: For some unknown reason, all variables correlated with political engagement exhibit pseudo-Kantian effects and have a similar negative interaction term in turnout equations.
- (2) Specificity of treatment effect. Perhaps there is nothing unique about turnout: Duty predicts *every* measure of political engagement equally well and with the same negative interaction.
- (3) Replicability of the findings. Perhaps all these results are unique to Internet samples, or to unvalidated turnout responses, or to the 2008 American election, or to the U.S. generally.

All these possibilities turn out to be false. First, other closely related variables do not behave like duty: Only duty generates the negative interaction term that is the hallmark of Kantian effects. We tested two variables long known for their powerful relationship to political engagement—interest in politics and education (Milbrath 1965, pp. 50–72). We used interest as measured in January for the same reason that we used the duty measure from that month—to avoid contamination by the short-term, endogenous effects of the campaign.

As the first two columns of Table 5 show, political interest has an important effect on turnout, as expected, but it lacks the consequential interaction with preference. The interaction effects are small and far from statistically significant. By contrast, even with that additional interaction in the model, duty and its interaction with preference continue to have large, statistically significant effects.

The remaining columns of Table 5 carry out similar tests for education, a helpful portmanteau variable correlated with every aspect of political engagement. The results show that education matters, as expected. However, its interaction term with preference is highly variable and never close to statistical significance. In the simplest model (column 3), the interaction effect is small and has the wrong sign. With additional controls (column 4), the interaction is correctly signed but very noisy. Column 5 shows that the weighting scheme is causing much of the statistical variability: Without weights, the interaction term for education has a smaller standard error, but its estimated impact becomes quite small again. In sum, education has no credible interaction effect. Meantime, duty and its negative interaction have no such difficulties. They retain their strong, stable, statistically significant effects across these specifications.

We conclude that duty is not a proxy for some other explanatory variable or variables. There is no theoretical reason to expect other determinants of political engagement to behave in a Kantian way, voters do not describe them in that way, and statistically, they do not behave in that way. Duty affects turnout in a way that other closely related variables do not.

Second, duty predicts turnout in a Kantian way, but as our theory predicts, it does not have the same effect on other aspects of political participation that lack a widespread civic norm of duty attached to them. We first examine talking about politics. The CCAP survey twice asked voters, in January and March, whether they had discussed politics in the past seven days. We add these two dichotomous measures, producing a scale that ranges from 0 to 2. Column 1 of Table 6 shows the results, using the same control variables as before: Duty has no substantial effects,



Table 5 Probit tests of alternate models of turnout in the 2008 U.S. Presidential Election (weighted except col. 5)

	niterest Jan b/se	Interest Jan b/se	Interest Oct b/se	Interest Oct b/se	Interest Oct unweighted b/se
Preference (Oct)	1.79*** (0.47)	2.09*** (0.53)	1.97** (0.78)	2.69*** (0.93)	1.95*** (0.63)
Interest	1.55** (0.63)	1.08 (0.82)		0.46* (0.27)	0.42** (0.20)
Interest × Preference	-0.22(0.76)	-0.26(0.94)			
Education		1.25** (0.49)	.99 (1.37)	2.98* (1.69)	1.29 (1.19)
Education × Preference			0.55 (1.63)	-1.80(1.92)	-0.16(1.31)
Duty (Jan)		2.43*** (0.79)		2.40* (0.78)	2.40*** (0.68)
Duty × Preference		-1.98**(0.89)		-1.82**(0.88)	-1.77**(0.73)
Age		4.08** (1.90)		4.07** (1.85)	2.01* (1.19)
Age^2		-4.21*(2.19)		-4.27**(2.16)	- 1.88 (1.42)
PID strength		0.80*** (0.30)		0.90*** (0.32)	0.44**(0.19)
Constant	-1.62***(0.33)	-3.59***(0.61)	-1.69***(0.64)	-4.04***(0.90)	-2.32***(0.61)
Unweighted N	968	841	897	839	839

***Significant at 0.01; **significant at 0.05; *significant at 0.10



	CCAP Jan and Mar 2008 # Times talked politics (0–2) Ordered probit b/se	ANES 2012 Gave money (0–1) Probit unweighted b/se
Preference (Mar)	0.16 (0.57)	0.16 (0.12)
Duty (Jan)	0.21 (0.85)	- 0.04 (0.22)
Duty × Pref	0.30 (0.90)	0.32 (0.22)
Age	0.25 (1.19)	- 0.06 (0.50)
Age^2	- 0.48 (1.47)	1.50** (0.59)
Education	1.08*** (0.29)	0.55*** (0.09)
Interest (March for CCAP)	2.05*** (0.21)	1.11*** (0.10)
PID strength	- 0.12 (0.23)	0.40*** (0.07)
Income		0.59*** (0.09)
Threshold 1	1.51 (0.53)	
Threshold 2	2.28 (0.57)	
Constant		- 3.29*** (0.15)
Unweighted N	780	5201

Table 6 Talking about politics in past week and donating to candidates or parties

the interaction term has the wrong sign, and both are far from statistical significance. Talking about politics is predicted primarily by interest in politics and education, that is, by having the motive and the tools to talk, but duty is irrelevant.

The second column shows the same test for giving money to either a party or a candidate, as recorded in the 2012 ANES.²⁴ We add income as an explanatory variable for obvious reasons. Again, the effects of duty and its interaction are small and statistically insignificant, and both have the wrong sign.²⁵ Interest, partisan strength, education, and income matter, as one might expect, but duty has no effect. We conclude that, in conformity with theoretical expectations, civic duty has Kantian effects on the decision to turn out, but not on other aspects of political participation.

Third and finally, the theoretically meaningful negative interaction we found is not confined to the 2008 American election. We made use of the following surveys:

²⁵ There are too few contributors in the 2008 CCAP to allow the same test to be made with those data. All but one of the donors were in the top category of preference, so that the model was very nearly unidentified, standard errors exploded, and a considerable number of observations were completely determined. We also could not test talking about politics in the 2012 ANES since its only similar measure asked the respondents whether they had talked to anyone about voting for or against a candidate or party, a measure of proselytization possibly related to duty and quite different from a pure measure of engagement.



^{***}Significant at 0.01; **significant at 0.05; *significant at 0.10

²⁴ At our suggestion, the 2012 ANES survey adopted a question wording for duty very near our own. (They retained the old ANES dichotomous item for caring about the election.).

- 1. The 2012 ANES survey was discussed earlier. The largest sampling weights supplied with the data were more than 500 times greater than the smallest weights, and the resulting estimates and standard errors were quite noisy. We therefore report unweighted estimates. (Estimates using truncated weights were similar.)
- 2. The 1980–1984–1988 ANES surveys permit us to use validated turnout as the dependent variable rather than reported turnout.²⁷ (Earlier ANES surveys had less extensive validation.)
- 3. We carried out an extensive set of tests using a 2008 two-wave Internet sample from two Canadian provinces, using the same question wording for preference and duty as in the 2008 CCAP. At the descriptive level, respondents in the lowest categories of Duty and Preference have a 10% chance of voting, while those at the top levels of both Duty and Preference are predicted to turn out at a 90% rate, close to the corresponding U.S. rates.²⁸
- 4. The 2005 Japanese Election Study used different measures of preference and duty, but the same model can be estimated as for the other countries. (For details, see Achen and Hur 2011.)

The results for each of these data sets may be seen in the corresponding columns of Table 7. In every case, duty, preference, and their interaction enter as statistically significant effects on the vote. When they are measured with more response categories, as in the 2008 CCAP and in the Canadian study, their coefficients increase. The table demonstrates that the Kantian aspect of duty appears quite generally in voter turnout studies of all kinds.

What we have shown, then, is that many voters have a sense of duty to vote and that it is sufficient to motivate them to cast a ballot. Many others do not have such sense of duty and their decision is very much dependent on expressive motivations, that is, the strength of their preferences. We have proposed a Kantian conceptualization of citizen duty, and we have laid out a new statistical model and a new question wording that produces exactly the effects to be expected. Those results appear when the dependent variable is reported vote or validated vote. They hold with the standard other variables controlled. They appear in countries other than the U.S., including one in Asia. Other, closely related variables known to influence

²⁸ Here, interest is interest in federal politics as measured in the second wave, age is scaled from 18 to 90, preference is caring which party wins, and duty is duty to vote in federal elections. In other respects, the care and duty questions are worded the same as in the 2008 CCAP. The survey weights supplied by the vendor are used.



²⁶ The face-to-face sample had very few respondents choosing intermediate values for duty, so that it became essentially dichotomous. (The Internet sample was better.) The ANES preference variable is dichotomous by design. The resulting large amount of measurement error in both variables attenuates the coefficients, as it also does in the ANES validated vote sample in column 2, where the duty variable was also dichotomous by design.

²⁷ We took the data from the ANES cumulative file, whose codebook recommends against weighting. These ANES surveys also allowed us to test another counter-hypothesis to our argument, namely that duty appears to predict (reported) turnout because those with a sense of duty are more likely to say that they turned out when they did not. However, no such difference appears in these data.

Table 7 Probit models of turnout in the U.S., Canada, and Japan

	ANES 2012 b/se	ANES 1980–1988 validated b/se	Canada 2008 Quebec and BC b/se	2005 Japan b/se
Preference	0.69*** (0.064)	0.29*** (0.06)	1.50*** (0.22)	1.17** (0.51)
Duty	1.13*** (0.15)	0.42*** (0.07)	1.45*** (0.30)	0.92*** (0.29)
$Pref \times duty$	-0.48***(0.16)	-0.20* (0.08)	- 0.82** (0.39)	-1.20*(0.64)
Age	1.26*** (0.39)	3.37*** (0.36)	2.40*** (0.90)	5.97*** (2.30)
Age^2	-0.29(0.53)	-2.87*** (0.46)	- 1.15 (1.15)	-4.96**(2.17)
Education	1.04*** (0.08)	1.04*** (0.08)	0.61*** (0.24)	-0.02(0.26)
Interest	0.55***(0.09)	0.55*** (0.07)	0.56*** (0.20)	0.53** (0.21)
PID strength	0.65*** (0.07)	0.45*** (0.07)	0.15 (0.15)	1.44*** (0.24)
Constant	-1.48***(0.09)	-1.76***(0.09)	-1.62***(0.27)	-1.52***(0.56)
Unweighted N	5342	4569	1961	1360
**************************************	***Civality of 0.1. ***Signification of 0.05. **invited to 1.010	0.10		

***Significant at 0.01; **significant at 0.05; *significant at 0.10



turnout have no such effects. And civic duty itself affects only turnout, not other aspects of political participation.

Thus duty, and only duty, performs as if (some) people think in Kantian terms. Many people believe that they have a moral obligation to vote and this belief has a powerful effect on the likelihood of voting, most especially among those with weak or no preference and who would be prone to abstain in the absence of such ethical considerations. Many other people think that turnout is simply a matter of personal choice, devoid of moral implications, and their decision to vote or abstain is shaped by how much they care about the outcome. Thus, there are two types of citizens, who construe the act of voting in very different ways, and we miss something fundamental if our turnout model does not take that into account.

Conclusion

We have shown that modeling the decision to vote as an expressive act is not enough. Many people construe voting in ethical terms, and they decide whether they should vote in a different manner than those without ethical considerations. To capture causal heterogeneity, both expressive and ethical considerations need to be considered in explaining voters' decisions.²⁹ Indeed, duty and preference strength together are powerful predictors of turnout. Even if they had no causal power, their predictive success would make them valuable to survey practitioners. But we have amassed considerable evidence to support the claim that the effects are causal.

We have also shown that those who conceive of voting as a civic duty are less influenced by other considerations in their turnout decision, just as the concept of deontological duty predicts. Some citizens are Kantians when they approach elections, and being Kantian makes a substantial difference.

Many political scientists have been wary about explaining behavior through an appeal to ethical concerns, which may hide self-interest motivations or may simply reflect rationalization. We have shown that there is indeed a little rationalization in our samples, but not much, and not enough to distort the statistical patterns, even when duty is measured close to the election. We also found that those with a sense of civic duty are not more inclined to over-report turnout. Most importantly, civic duty generates a negative statistical interaction effect just as the theory suggests it should, while other turnout-related attitudinal and demographic variables do not. Similarly, duty affects turnout in a Kantian way, but it does not have that kind of impact on other aspects of political participation. Therefore, all the available evidence strongly suggests that the relationship between duty and turnout is not spurious.

Civic duty has often eluded good measurement in the past. We have proposed a new measure here, and we believe that the results are encouraging. Ideally of course, duty, like related attitudes such as political efficacy or political trust, should

²⁹ Throughout our analyses, we have argued that the impact of preference is stronger among those with a weak sense of duty. Another interpretation is that the impact of duty is stronger among those with weak preferences. In this paper, we focus on duty because this is our main contribution, but preference and duty play equally important roles in our model.



be captured through a battery of indicators (see Blais and Galais 2016). But our data suggest that the question used in this study provides a good measure of the belief that voting is a moral obligation or a matter of personal choice. The data show that politically engaged citizens are more likely to have a sense of duty: Caring about the election outcome, education, strong partisanship, and growing older are all associated with duty even though all of them jointly fail to reduce the direct effect of duty on turnout. At this stage, it appears that the duty to vote is an aspect of democratic culture, and those who have learned other aspects of that culture have often acquired a sense of duty as well (Almond and Verba 1963). Nevertheless, the "duty" explanation will be more compelling when we have a more complete story about its origins and its connections to other political attitudes. How is the sense of civic duty developed? And is it strongly correlated with a duty to pay taxes and a duty to serve in the military when one is drafted, so that some individuals have a generic sense of duty to comply with norms and others do not (Hur 2017)? The answers to those questions would not affect our results here, but they would provide a broader understanding of the role of norms in political life.

All our analyses are based on observational data. In principle, the ideal test would be to experimentally manipulate duty and preference for a nationally representative sample in a real election. Even an experiment with an unrepresentative sample in a hypothetical election might be of some value. But it is not clear to us that even that is feasible. An experimenter might be able to prime civic duty among those who already internalize it, but truly manipulating it is extremely difficult. The same is true for caring about the outcome. The failure is not specific to these two attitudes. Other deeply held attitudes or identities that influence elections, such as partisan identification, political interest, or religious beliefs raise the same challenges. When it comes to ascertaining the impact of such variables, a powerful empirical strategy is to stick to nationally representative samples of voters engaged in an actual election to ensure external validity, to measure the variables with the greatest care possible, to use panel data, and to test the robustness of the findings through a wide combination of empirical tests. That is what we have done here.

We have focused in this research on how an individual's belief that she does or does not have a moral obligation to vote is a crucial factor in the turnout decision. This raises the question whether what matters is only the individual's sense of civic duty or whether we need also to consider how an individual's friends and relatives conceive the act of voting. In a recent study, Fieldhouse and Cutts (2016) show that the civic duty of other members of the household has an additional impact on turnout, over and above the effect of the respondent's civic duty. Further research is required to disentangle how the norms disseminated in one's social environment interact with individual norms.

Our study is confined to settings in which voting is not compulsory. We have shown that even though citizens have the right not to vote, some feel that they have a moral duty to do so. Should we expect the sense of civic duty to play out differently under compulsory voting? A number of recent studies have examined how compulsory voting may affect voters' information levels and attitudes (Quintelier et al. 2011; Sheppard 2015; Singh 2017). Another question is whether compulsory voting increases or decreases citizens' sense of civic duty. The norm



that one has a duty to vote is more clearly and widely disseminated under compulsory voting, and this could contribute to higher levels of civic duty. But the presence of external inducements, and most specifically punishments for not voting, may have the indirect consequence of weakening the intrinsic motivation to vote. Indeed Maldonado (2015) finds that Peruvians who are reminded about fines for not voting report a slightly lower level of civic duty. The other question that would need to be addressed is whether the belief that one has a moral obligation to vote has a weaker effect on the turnout decision when there is a legal obligation to participate.

Even at this stage, however, our results suggest an important lesson for contemporary political science. Human beings sometimes act from moral motivations, not just from self-interest. Although this fact has long been obvious to knowledgeable political scientists, empirical research has too often been founded on simpler notions of how people act. We hope to have shown that the "simple" act of voting is profoundly shaped by citizens' views about whether voting is an ethical decision.

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