ORIGINAL PAPER

Conformity and Individuals' Response to Information About Aggregate Turnout

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Abstract

How do voters react to information about aggregate turnout? Do high turnout levels mobilize or discourage citizens to vote? We argue that it depends on individuals' degree of conformity. We argue that in addition to the classic *calculus of voting*, conformist voters have an added incentive to 'follow the pack' and vote when turnout is high while abstain when turnout is low. We conduct two separate experiments, the first a survey experiment with a representative sample of the UK population and the second a lab experiment in Canada. Both studies confirm our hypothesis. These findings highlight the importance of taking individuals' level of conformity into account when explaining their decision to vote or abstain.

Keywords Conformity · Turnout · Survey experiment · Lab experiment

> *"men nearly always follow the tracks made by others and proceed in their affairs*
> *by imitation"*
> *Machiavelli's Prince (1514)*

Introduction

How do voters react to information about aggregate turnout? Are they more or less likely to vote when they are informed that turnout is high? The classic rational choice model (Downs 1957; Riker and Ordeshook 1968) has clear predictions in this regard: people should be more inclined to vote when presented with information that

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turnout is low and to abstain when informed that turnout is high. But the opposite may also be true: people may be more inclined to engage in an activity when more people are doing it (Cialdini 1993; Coleman 1994). As a consequence, they may be more likely to vote when they are told that most other people vote and to abstain when they are informed that most other people abstain. In this study we argue that the response to our initial questions depends on individuals' degree of conformity—the individual's basic predisposition to conform or not to 'collective opinion'.

More specifically, we predict that conformists are more likely to 'follow the pack' and react positively to expected aggregate turnout while non-conformists are more inclined to react negatively to such information. Our study is about 'impersonal influence', and it is very much a complement to Mutz' (1999) influential book on 'how perceptions of mass collectives affect political attitudes'. Mutz is concerned with how collective opinion affects individual judgments (see her chapter 8), and thus her dependent variables are attitudes and opinions though she also considers candidate preferences and vote choice. Our dependent variable is the decision to vote or abstain, which Mutz does not examine.[1]

We should point out at the outset that there are distinct reasons why voters may change their predisposition to vote as we vary information on expected aggregate turnout. First is the main contribution of our study: there are context dependent expressive motivations that lead conformist citizens to act in line with what others do, and non-conformist citizens do the reverse. Second is the usual instrumental motivation that leads 'rational actors' to consider the benefits and costs of voting and conclude that the expected benefits get lower as aggregate turnout gets higher.

The inclination to imitate can be construed to be an evolutionary trait that helps species to learn from successful ancestors (Gibson and Hoglund 1992). Imitation is a deep-rooted trait that influences social behavior. Indeed, social psychologists have devoted much attention to social conformity, defined as "the act of changing one's behavior to match the responses of others" (Cialdini and Goldstein 2004, p. 606). One of the best-known studies on social conformity is the Asch-type experiment in which subjects are shown to rally to the majority viewpoint, even if that viewpoint is clearly incorrect (for a meta-analysis see Bond and Smith 1996).

In an important paper, Stanley Feldman (2003) argues that in the fundamental problem of maintaining social order, individuals are faced with a dilemma between the goals of personal autonomy and social cohesion. The tension between the values of autonomy and social conformity, Feldman contends, is universal. He refers to Schwartz's (1992; see also Schwartz 1994 and Vecchione et al 2015) study of social values, which shows that the two principal components among 56 different values are self-direction and conformity. As Feldman notes, the relative emphasis that is put on these two values varies across societies and among individuals in a society.

Applied to an individual's decision to turn out to vote in general elections, this dilemma may be interpreted as follows: should a voter evaluate "autonomously" her own costs and benefits of voting (calculus of voting) or should she instead follow

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[1] She devotes one paragraph (p. 190) to a review of studies about the impact of pre-election polls on turnout.

what other people do? We know the former leads to a very low turnout in large N elections. The latter could yield a high turnout when expectations of aggregate turnout are high: high conformity individuals want to go along with the majority and vote as well.

There is evidence that more than 25% of subjects in controlled non-strategic laboratory situations conform to the announced behavior of others (Fatas et al 2017). In this same study, it is suggested that conforming behavior does not follow the Social Identity Theory where "individuals strive to achieve or to maintain positive social identity" (Tajfel and Turner 1979).[2] Instead, Social Comparison Theory appears to drive conforming behavior in their experiments: subjects seem to "evaluate their opinions and abilities by comparison respectively with the opinions and abilities of others" (Festinger 1954, p. 118).

There has been little work on how social conformity affects turnout. Gerber and Rogers (2009) run two field experiments in the US and find that emphasizing high turnout is most effective at increasing citizens' intention to vote in an election; people are more willing to vote when they are told that many others will participate. While such studies provide evidence that some people are affected by impersonal influence, they do not tell us whether that impact depends on their degree of social conformity. We wish to fill the gap and measure the heterogeneous effect of information about turnout on subjects with different degrees of social conformity. Individuals differ in the importance that they attach to conformity versus autonomy, and these differences should condition how they react to information on aggregate turnout. In an ideal experimental design, we would manipulate social conformity and obtain causal estimates of its interaction effect with aggregate turnout on the probability of voting. However, to the best of our imagination, it is impossible to exogenously manipulate such an inherent characteristic of our experimental subjects so we will for now be contented with measuring conformity as a covariate.

We thus formulate and test a very simple hypothesis. How one reacts to information about aggregate turnout depends on one's degree of conformity. In other words, we expect a positive interaction between subjects' degree of conformity and the announced aggregate turnout. Non-conformists become less prone to vote when they are informed that turnout is high while conformists have the opposite reaction – their propensity to vote increases.

It is appropriate to point out the similarities and differences between our perspective and lines of prior research. There is a connection between our focus on conformity and previous work on civic duty, defined as "the belief that a citizen has a moral obligation to vote in elections" (Blais and Galais 2016, p. 61). Both duty and conformity can be construed as deep attitudes that may be related to personality traits (Weinschenk 2014). Civic duty is an ethical judgment; the person feels that she has a moral obligation to fulfill (Blais and Achen 2019). In that sense, she feels she has to conform to a norm. Note, however, that in this case the norm is internalized;

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[2] Bernheim (1994) is to the best of our knowledge the only paper that formalises conformity *a la* Social Identity Theory with a game theoretical model where players care about their social status and can only affect it by showing conformity through their actions.

the person who votes out of duty does so because she believes it is the right thing to do, she would feel guilty if she were to abstain. In contrast, the person who votes out of conformity does so simply because she wants to do like most other people, and she would be inclined to abstain if most other people abstained.

There is also a connection to be made between our perspective and research on the impact of social pressure on turnout (Knack 1992; Schram and Sonnemans 1996; Blais et al. Forthcoming). Those who vote out of social pressure implicitly conform to the norm that the good citizen should vote. From this perspective, it is useful to distinguish descriptive and injunctive norms (Cialdini et al. 1990); the former refer to what other people do and the latter to what other people believe the individual should do. In our case, we are interested in the impact of descriptive norms, as we wish to determine how people react to information about aggregate turnout.

In what follows, we first formalize the role of conformity on the calculus of voting and later show results of both a survey and laboratory experiments that confirm our hypothesis.

The *Calculus of Voting* with Conformity Considerations

In order to characterize the tension between social conformity and self-interest, we develop a simple theoretical framework that captures the behavior of a rational individual. For this purpose, we assume there are $(N + 1)$ voters and two candidates (A and B). Whether a voter prefers candidate A or B is private information yet it is common knowledge that any voter has an equal probability of preferring A or B. We denote $U > 0$ the utility difference between the favoured candidate and the disfavored one. Voters incur a cost $C > 0$ when voting. This cost is also private information yet the distribution from which it is drawn is common knowledge –costs are distributed according to the density function $f(\cdot)$ in the range $[\underline{c}, \overline{c}]$, where $\overline{c} > \underline{c} > 0$. We assume that the costs of voting are independent and not correlated with the voter's preferred candidate. After privately observing costs, the preferred candidate and an informative signal on the expected aggregate turnout, voters need to decide whether to vote or abstain (when voting, it is weakly dominant to vote for the preferred candidate). The chosen candidate is the one that receives a majority of the votes; ties are resolved by the toss of a coin.

The Perfect Bayesian Nash equilibrium of this game of incomplete information is characterized by cutpoint strategies that state the cost above which a voter should abstain (Palfrey and Rosenthal 1985). Both our survey and lab experiments are stripped of strategic uncertainty and can be analyzed as a decision theoretic problem where the $(N+1)$th subject observes a perfectly informative signal about aggregate turnout and votes when the following inequality is satisfied.

$$p \cdot U - C + D + \gamma \cdot (T - 50) > 0$$

where p is the probability the voter is pivotal, U is the utility difference between candidates, C is the cost of voting, D is the usual context independent expressive component (e.g. civic duty), and the last term captures the role of conformity in the

calculus of voting. T is the (expected) aggregate turnout among the other N voters in percentage points and $\gamma \geq 0$ is the subject's level of conformity. Note we are considering deviation from a 50% turnout so that a conformist voter sees a decrease in her probability of voting when aggregate turnout is low and an increase when aggregate turnout is high. Note that empirically we will not able to derive the threshold above which conformists vote more (or below which conformists vote less) as our design only allows us to identify $(D - \gamma \cdot 50)$.

The Survey Experiment

In order to test our hypothesis, we conducted a survey experiment in April 2017 via YouGov on a representative sample of British citizens. We initially considered having two treatments announcing an expected high or low turnout and asking respondents to report whether such announcement made them more or less willing to vote. However, this design might not perfectly identify the relationship we are after as some respondents might interpret expected turnout as a sign of the closeness of the election—they might believe there is high turnout because the election is close.[3] For this reason we designed a two by two treatment that allows us to control for the closeness of the election. Namely, one of the following four treatments was randomly assigned to each subject:

> It's polling day for the UK general election and you are told that the election [will/will not] be very close and turnout will be very [high/low]. Does this make you: much more willing to vote, slightly more willing to vote, slightly less willing to vote, much less willing to vote, or does it make no difference?

Our variable of interest is the subjects' *willingness to vote*. We code this variable "-2" when the subject is much less willing to vote, "-1" when the subject is slightly less willing to vote, "0" when there is no difference, "$+1$" when the subject is slightly more willing to vote, and "$+2$" when the subject is much more willing to vote. The modal response (56%) is 'no difference'. The second most frequent response (31%) is 'much more willing to vote'.

Social conformity is measured with Feldman's (2003) battery of 17 paired alternative items (see Online Appendix A1 for a detailed description).[4] The answers to each of the 17 pairs were recoded so that 1 identifies the conformist option and 0 the non-conformist (autonomy) option. We add all responses and obtain a conformity scale that can take any integer value between 0 and 17. Feldman himself distinguishes between 5 dimensions within this conformity measure (2003, Table 1, p. 54) and also notes that factor analysis reveals "*strong evidence of a single common factor*" (Feldman 2003, p. 55) underlying the responses to the 17 paired alternatives.

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[3] On the relationship between the closeness of an election and turnout see Blais and Dobrzynska (1998) and Franklin (2004).

[4] The order in which our treatments on willingness to vote and the conformity questions were asked was randomized; the order does not affect any of our results so we pool together both cases in our analysis.

Table 1 Average willingness to vote from subjects that score high / low on social conformity by treatment (in brackets are the number of observations for each cell)

Conformists (score > 7)			Non-Conformists (score ≤ 7)		
	Low turnout	High turnout		Low turnout	High turnout
Not close	0.38 (243)	0.50 (245)	Not close	0.68 (231)	0.42 (236)
Close	0.59 (255)	0.82 (262)	Close	0.83 (270)	0.71 (270)

Hence we keep the full measure for our main analysis yet, in Online Appendix A11, we replicate our main empirical tests considering only the paired alternative items that, according to Feldman, capture the trade-off between conformity and autonomy (the first three in Table A1 in Online Appendix). All our results are robust to such an extension.

The survey also includes a host of other variables: age, gender, education, income, class, and region of residence. Finally, the literature on political behavior has emphasized the impact of the Big Five personality traits (agreeableness, consciousness, extraversion, neuroticism, and openness) on citizens' behavior.[5] Measuring these traits should allow us to test for potential spurious correlation between conformity, expected turnout and willingness to vote.

We first report aggregate results by dividing our sample in the middle: we call conformists those that score higher than 7 on the conformity scale (1004 observations) and non-conformists those that score smaller or equal than 7 (1007 observations). In Table 1 we show the average willingness to vote among conformists and non-conformists according to the treatment they were exposed to, i.e. close or not close election, and expected high or low turnout.

We see that subjects are driven by instrumental considerations as they increase their willingness to vote when the election is close. As conjectured, the impact of expected aggregate turnout is conditional on whether the person is conformist or not: moving from low to high turnout increases the likelihood of voting among conformists and has the opposite effect among non-conformists. Note that all averages are above zero (recall that the willingness to vote variable can take values between −2 and 2) which might be an indication of the social desirability bias in showing willingness to vote in elections (Edwards 1957).

There is the possibility that the observed conditional impact of social conformity is spurious, that it reflects the fact that conformists have peculiar socio-demographic profiles or specific personality traits. Indeed, our conformity score has a modest positive correlation with consciousness (0.12), and a modest negative correlation with extraversion (−0.11) and openness (−0.35). We therefore regress willingness to vote on the respondent's conformity score (from 0 to 17), a dummy capturing the high turnout treatment and the interaction between the latter two variables. We

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[5] See Goldberg (1990, 1992, 1993), McCrae and Costa (1987, 1997) and Mondak et al. (2010).

Table 2 Linear regression on the willingness to vote

Variables	(1)	(2)	(3) close	(4) not close
High turnout	− 0.244***	− 0.250***	− 0.024	− 0.507***
	(.093)	(.093)	(.131)	(.135)
Conformity	− 0.029***	− 0.027***	− 0.009	− 0.048***
	(.008)	(.008)	(.011)	(.012)
Conformity * High turnout	0.032***	0.032***	0.009	0.058***
	(.011)	(.011)	(.015)	(.012)
Close election	0.244***	0.244***		
	(.045)	(.045)		
Constant	0.714***	− 0.205	0.186**	− 0.314
	(.070)	(.278)	(.396)	(.395)
Individual controls	No	Yes	Yes	Yes
Observations	2011	2011	1056	955
Adjusted R^2	0.0196	0.0326	0.0023	0.0424

Standard errors in parentheses, ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

control for the closeness of the election as well as a host of socio-demographic variables and the five personality traits. Results are presented in Table 2.

As predicted, high aggregate turnout depresses the propensity to vote among those who are at 0 on the conformity scale. The significant interaction term indicates that the negative impact of high turnout diminishes for conformist individuals. The impact of high turnout becomes positive ($+0.30$) among the subjects that score highest on conformity. These key results are unchanged when we add further controls to our initial specification: in column 2 we add individual controls (characteristics such as age, gender, social grade, etc. as well as the Big Five personality traits—in Online Appendix A2 we list all our controls and in Online Appendix A3 we replicate Table 2 without collapsing the estimates for the Big Five personality traits; our results are also robust to interacting all these covariates with our treatment). We run the same analysis with an ordered logit estimation (treating the five categories of willingness as ordinal) and with a binary logit estimation (contrasting those who responded slightly or much more willing with all others) and we always obtain a significant interaction effect between conformity and high turnout. In Online Appendix A4 we provide further robustness checks showing that our results hold when we classify subjects in two or three categories according to their degree of conformity.

In order to illustrate the results above Table 3 summarizes the marginal effect of aggregate information turnout on the propensity to vote (column 2 in Table 2). We observe the interaction effect we are interested in for low turnout announcements: when turnout is expected to be low conformists are much less likely to vote than non-conformists. Instead, when turnout is expected to be high the differences are minimal (yet still in the expected direction: subjects scoring higher in the conformist scale are more likely to vote).

As explained above, we also controlled for the closeness of the election. Being told that the election is close substantially increases respondents' willingness to vote. We further analyze the role conformity plays when the election is not close, i.e.

Table 3 Average willingness to vote (variable ranges between −2 and 2) as announcement on aggregate turnout and conformity levels change (standard errors in brackets)

	Low turnout	High turnout
Conformity = 0	0.833 (.068)	0.583 (.069)
Conformity = 8	0.614 (.032)	0.623 (.032)
Conformity = 17	0.368 (.082)	0.667 (.084)

when the propensity to vote hinges on one's basic values and attitudes. We re-estimate our model separately for close and not close elections. The results are shown in columns 3 and 4 of Table 2. We find that respondents' propensity to vote is not affected by the level of turnout or by their degree of conformity, nor by the interaction between the two, when the election is close (column 3). The relationships are instead strong when the election is not close (column 4). In this case, the willingness to vote score is 0.51 lower under high turnout among those with a conformity score of 0 and 0.46 higher among those with the maximum score of 17.

These results are in line with observational studies that show that election closeness increases voter turnout (Blais and Dobrzynska 1998; Cancela and Geys 2016; Franklin 2004; Geys 2006). When elections are close, no other considerations (i.e. expressive) significantly affect the likelihood of voting; instead, when elections are not close, non-instrumental motivations seem to prevail. This is noteworthy as the great majority of elections in democracies are won by wide margins—for instance, in the 2017 UK general election only 11 constituencies (out of 650) had a margin of victory below 100 votes.

The obvious question that arises from our survey study is whether the same pattern holds true when we can directly observe individuals' behavior (voting or abstaining) rather than rely on self-declared responses. Replicating our analysis in controlled laboratory conditions where the act of voting is observed should allow us to more precisely measure the interaction effect of conformity and aggregate turnout. The obvious concern in a laboratory study on turnout is that group sizes are much smaller, hence instrumental motivations might dominate everyone's decisions, irrespective of their degree of conformity. The lab thus provides a harder test of our hypothesis that *the impersonal influence* of "aggregate turnout" depends on how conformist one is.

The Laboratory Experiment

We design a lab experiment to test voters' reactions to aggregate turnout. Our experimental design is novel since it strips down all strategic uncertainty and does not require subjects constructing beliefs about expected aggregate turnout. We design a decision theoretic model where each of our subjects knows how many subjects in her group have previously voted, i.e. they hold perfect information on aggregate turnout in their group.

There are two candidates, A and B, and it is common knowledge that subjects have an equal probability of preferring either candidate, yet their own preference is

private information. Subjects need to decide whether to vote for their preferred candidate or to abstain. Voting entails a cost that is uniformly distributed in the interval [0, 5].[6] These costs are independently drawn and privately announced to each subject (costs are independent of whether the subject prefers A or B). The outcome of the election is determined by plurality: the candidate that obtains most votes wins, and in case of a tie, each candidate wins with equal probability. The payoff to a subject that sees her candidate win is 10; the payoff when her preferred candidate loses is zero.[7]

All sessions are run through computer terminals in CIRANO's Experimental Laboratory (Montreal, Canada) in the spring of 2015. Communication between subjects is not allowed. At the start of each session the instructions are read aloud (see Online Appendix A5). The experiment takes just under an hour. Subjects are paid an average of $36.73 CAD (minimum payment is $15.96 and maximum payment is $73.45 CAD).

We initially run two sessions with 10 subjects each. The protocol is identical in all elections: subjects are privately announced their preference and cost and are then asked to vote (for their preferred candidate) or abstain; after all subjects have submitted their vote, the winning candidate is announced, and each subject is privately told the payoff obtained in that election. This election process is repeated 65 times. After the 65th election we randomly select five elections and pay subjects according to their payoff in those elections in Canadian dollars plus a 15$ show up fee. At the end of the session we ask subjects to answer a survey with the usual questions (age, gender, studies, and experience in lab experiments) and the battery of items we used in our survey experiment to measure social conformity.[8]

We then use the data from these initial sessions with 96 new subjects who participate at a later date. These subjects face the same protocol (and instructions) with one exception: they are considered the 11th voter and are told how many of the previous 10 voters participated in the election. No information about the preferences or costs of the previous ten voters is revealed. The computer announces how many of them voted so that we can analyze the impact of information about aggregate turnout.[9] Given that we are using information on turnout from our initial two sessions, we can only announce that between 1 and 8 subjects previously voted. We

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[6] We assume that costs and preferred candidates are privately known to ensure there is a unique equilibrium where subjects with costs below a certain threshold vote for their preferred alternative—see Levine and Palfrey 2007.

[7] We specify our subjects' payoffs in Canadian dollars while our experiment used Canadian *cents* (i.e. all values we report in the text correspond to 1/100 of the values used in our instructions).

[8] We follow the common practice of first running the incentivized experiment, with no priming of any sort, and then asking the participants to answer some questions, among which the conformity ones. Note that no question in the conformity battery refers to voting so the connection between the experiment and the survey questions is not straightforward.

[9] We did not announce the way the previous 10 subjects voted so that the 11th subject would not know whether she is pivotal or not. We use the last 5 elections to observe respondents' behavior when they know whether they are pivotal or not (i.e. we announce the exact number of votes for each candidate). We find that conformists are less sensitive to pivotal events than non-conformists. The analysis in this paper focuses on the first 60 elections.

pick a predetermined order in these announcements so that all subjects face the same conditions and all turnout announcements are (almost) equally likely—see Online Appendix A6 for details on these announcements.

In order to find any meaningful relationship between our conformity variable and the other variables we elicited in the post experimental survey, we linearly regress our conformity measure on age, gender, student status, years of schooling, experience in the lab and level of risk aversion. We find that being conformist is positively correlated with being risk averse. No other personal characteristic correlates with the conformity variable (detailed results are reported in Online Appendix A7).

We now proceed to test our main prediction that the propensity to vote decreases as aggregate turnout increases among those who score low on conformity while it increases among those who score high on conformity.[10] The dependent variable (voted) takes the value of 1 if the subject voted and 0 if she abstained. The main independent variables are aggregate turnout, conformity, and the interaction between the two. Aggregate turnout is the number of previous subjects who had voted, and ranges from 1 to 8. Conformity is the individual's score on the social conformity scale, which ranges from 0 to 14.[11] We expect the main effect of turnout (among those with a score of 0 on conformity) to be negative and the interaction effect to be positive. Our model includes two control variables: cost and period. The cost of voting is an interval variable that goes from 0 to 5, and the period corresponds to the specific election, from 1 to 60. We expect a decrease in the propensity to vote as the cost of voting increases. The period variable allows for trends over time.

Table 4 presents the findings. We find support for our hypothesis: there is a strong interaction effect between turnout and conformity. The rational tendency to be less prone to vote when turnout is high weakens and is in fact reversed as one's score on social conformity becomes higher. As expected, subjects are less inclined to vote when the cost of voting is higher and as the experiment progresses. As a robustness check in column (4) we run a random effects logistic regression where the panel variable is a unique identifier for each subject, and we see results analogous to our initial specification. Pressing our specification further in the last column we run a fixed effect logistic regression; this specification can no longer extract information from differences between subjects and the role of conformity is obviously omitted given that it is fixed for each of our individuals. However, we are still able to test our main hypothesis given that the announced turnout changes across the 60 periods. We see that, while controlling for each of our subjects' idiosyncratic characteristics, all our results remain intact.[12]

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[10] The simple theoretical model we presented above replicates the conditions in our lab experiment.

[11] All our results are robust to considering the previously mentioned alternative measure of conformity that only considers the first three items in Table 1 (the items that capture the trade-off between conformity and autonomy, according to Feldman 2003)—see Online Appendix A11.

[12] Note that 8 subjects were dropped from this last specification with fixed effects because they did not change their behaviour throughout the experiment (i.e. always voted or always abstained).

Table 4 logistic regression on the probability of voting

Variables	(1)	(2)	(3)	(4) Random effects	(5) Fixed effects
Cost of voting	−0.591*** (.057)	−0.596*** (.058)	−0.600*** (.058)	−0.824*** (.028)	−0.817*** (.028)
Aggregate turnout	−0.063*** (.002)	−0.064*** (.002)	−0.160*** (.000)	−0.224*** (.033)	−0.224*** (0.33)
Conformity		−0.050 (.172)	−0.122*** (.007)	−0.169*** (.063)	–
Conformity * Aggregate turnout			0.016*** (.000)	0.022*** (.005)	0.022*** (.005)
Period	−0.005** (.049)	−0.005** (.046)	−0.005** (.047)	−0.007** (.002)	−0.007 (0.002)
Constant	1.443** (.241)	1.764** (.346)	2.212** (.392)	2.964** (.451)	–
Observations	5760	5760	5760	5760	5760 (88 groups)
Log likelihood	−3441	−3425	−3417	−2744	−2357

Standard errors (clustered by subject) in parentheses, ***p<0.01, **p<0.05, *p<0.10

Table 5 Estimated probability of voting conditional on aggregate turnout and conformity levels (standard errors in brackets)

	Turnout = 1	Turnout = 5	Turnout = 10
Conformity = 0	0.584 (.066)	0.450 (.054)	0.291 (.049)
Conformity = 8	0.406 (.030)	0.379 (.026)	0.346 (0.034)
Conformity = 17	0.230 (.072)	0.305 (.074)	0.413 (0.098)

In Online Appendix A9 we provide further robustness checks showing that our results hold when we classify subjects in two or three categories according to their degree of conformity.

A subject in our sample scoring lowest on the conformist scale (0) reacts negatively to information on aggregate turnout: her predicted probability of voting decreases from 0.59 (standard deviation, sd, 0.07) to 0.35 (sd = 0.05) when the turnout announcement turnout shifts from 1 to 8. This is indeed consistent with the calculus of voting.

However, the propensity to vote for the subjects that are most conformists in our sample (14) increases from 0.28 (sd = 0.06) to 0.37 (sd = 0.06) as her expectations shift from an expected low turnout (1) to an expected high turnout (8). These findings clearly support our hypothesis: the *impersonal influence* of aggregate turnout depends on what kind of person she is, more precisely how much she values autonomy versus conformity.

As we previously did, we illustrate our main findings by computing marginal effects. In Table 5 below we report the estimated probability of voting (according to the specification of Column 3 in Table 4) as we vary the aggregate turnout and conformity levels.

Finally, in Online Appendix A10, rather than looking at 5760 decisions made by 96 individuals participating in 60 elections, we look separately at each of the 96 individuals and see how their decisions are affected by the cost of voting and aggregate turnout across these 60 elections. For each subject we estimate her strategy and find further evidence that the propensity to react positively to higher turnout increases with the individual's level of conformity.

Conclusion

Our research highlights the importance of including social conformity in the study of political phenomena. Recent research in political psychology has focused on the Big Five personality traits (see especially Mondak et al. 2010) but our study suggests that we should go beyond these personality traits. Politics is very much about collective decision-making, so there is an underlying tension between the desire for personal autonomy and the need for social norms that are respected and followed by everyone in the community. Citizens strike a different balance between these two considerations, and this is bound to shape their behavior.

We have combined a survey experiment conducted in Britain and a lab experiment performed in Canada to test our hypothesis. Both studies produced remarkably

similar findings: in both instances, people who score higher on the social conformity scale are more prone to vote (abstain) when they know that most other people vote (abstain) while those who score low on the conformity scale have exactly the opposite reaction. If a predicted high turnout makes conformists more inclined to vote and if there are many conformists in the electorate, then a relatively high turnout would be an equilibrium.

The implications of our study hinge in good part of the distribution of individuals across the conformity scale in a given society at a given point in time. To the best of our knowledge there are no time-series or cross-section data about the distribution of conformity across societies or over time. The data that we have collected in Britain (see Fig. A1 in Online Appendix A1) suggest a relatively normal distribution, with the mean (7.52 on a 0 to 17 scale) indicating a slight majority of non-conformists. The point remains that, at least in our representative poll of British society, there are many people with conformist leanings.

We therefore end with a call for more attention to be paid to an individual's social conformity. A huge literature exists in social psychology about the role of conformity, yet little research has been devoted to its impact in political life. Our study suggests that it is a crucial variable in the decision to vote or abstain. There are good reasons to believe that it shapes other political phenomena such as the decision to participate in demonstrations or to engage in strategic or bandwagon voting. It makes sense to assume that many people pay attention to information about what others in the community are likely to do when deciding whether to vote or abstain. Political scientists need to integrate such considerations into their models and analyses.

Our study also raises important questions about the relationship between social conformity and other factors that may affect voter turnout. One such question pertains to the relationship between social conformity and sense of civic duty. Are conformists more prone to believe that they have a moral obligation to vote? Are both attitudes shaped by personality traits? Another set of questions is about the relationship between social conformity and social pressure. We would expect conformists to pay attention to social pressure. But what kind of social pressure? In this study, we have examined how conformists react to information about aggregate turnout. But what happens when conformists are exposed to conflicting information, if/when for instance they learn that turnout in the country is going to be high but that most friends/relatives are going to abstain? These are big questions about which we have no clear answer.

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