Using self-prophecy to combat vote overreporting on public opinion surveys

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1. Introduction

Scholars of voting behavior rightly worry a great deal about the measurement of self-reported turnout. The reason is straightforward—voting is one of the most fundamental components of a democratic society, thus we ought to be able to measure it well. Unfortunately, from the standpoint of survey research, we measure voter turnout poorly. For example, in the 2012 Cooperative Congressional Election Study (CCES) over 20% of the sample overreported voting (i.e. said they voted when administrative records indicate they did not). Although we do not have validated turnout from the National Election Study (NES), the reported turnout rate in 2012 exceeded turnout among the voting eligible population by 20 percentage points. This matters for students of the causes and consequences of voting.

An important consequence of vote overreporting is the failure to estimate properly the effects of factors theorized to influence turnout (Silver et al., 1986; Bernstein et al., 2001; Cassel, 2003; Duff et al., 2007; Deufel and Kedar, 2010; Ansolabehere and Hersh, 2012; Achen and Blais, 2016). For example, Bernstein et al. (2001) find the effect of race on turnout is diminished when looking purely at reported vote, while the relationship is exaggerated for education and partisanship. Part of the problem is that overreporting varies across individuals’ demographic and attitudinal characteristics (Silver et al., 1986; Belli et al., 2001; Bernstein et al., 2001; Cassel, 2003; Karp and Brockington, 2005; Duff et al., 2007; Deufel and Kedar, 2010; Ansolabehere and Hersh, 2012). Additionally, since the vote question acts as a screen for subsequent behavioral outcomes, such as vote choice, bias may contaminate these analyses as well (e.g. Wright, 1993; Carsey and Jackson, 2001).

While voting scholars seriously studied overreporting as far back as the 1960s, it was not until 1999 that scholars made inroads into generating survey questions that produced more accurate measures of voting (Belli et al., 1999). Other successes have followed (Belli et al., 2006; Duff et al., 2007; Hanmer et al., 2014) but the problem persists.

Here we develop a new approach to reducing vote overreporting in surveys. We do so by drawing on psychological theories that show people have a tendency to follow through on an action once they have predicted their behavior (Sherman, 1980). We extend this logic to pledges to honestly report whether one voted or not. By asking respondents to pledge to be honest, we overcome the pressure to conform to socially desirable voting norms. We implement this test as a survey experiment in the 2014 CCES, a web-based survey with a pre-post-election design, and a subsequent vote validation experiment in the 2014 Cooperative Congressional Election Study, we find that an overwhelming majority of respondents will agree to take an honesty pledge regarding their future vote report. Having pledged their honesty, they then overreport their vote at far lower rates than other survey participants. The observed effects are additive, since previously developed methods of reducing overreporting were present across all conditions. These findings have important implications for studies endeavoring to understand voting behavior and social desirability pressures.
overreporting, making the effects we find additive.\textsuperscript{2}

2. Vote overreporting in surveys

The existence of a sizeable gap between self-reports of turnout in surveys and actual turnout rates has long been documented (Clausen, 1968; Traugott and Katosh, 1979). While a portion of this difference can be attributed to demographic differences between the people who agree to respond to surveys and the voting eligible population (Selb and Munzert, 2013), a fair share of this gap is created by the overreporting of voter turnout (Silver et al., 1986; Bernstein et al., 2001; Casel, 2003; Karp and Brockington, 2005; Deufel and Kedar, 2010; Hanmer et al., 2014). Such a measurement problem in what amounts to a fundamental concept for research on the topic of voting behavior has the potential to be detrimental to the field.

Given the seriousness of the issue, scholars have paid a great deal of attention to fixing it. Some have argued that the primary culprit is memory failure on the part of the respondent, yet tests applied strictly to this memory failure hypothesis have failed to locate a significant decrease in vote overreporting (Abelson et al., 1992). Others contend that the primary driver of overreporting is social desirability bias (Silver et al., 1986; Presser, 1990; Belli et al., 2006; Duff et al., 2007; Holbrook and Krosnick, 2010; Hanmer et al., 2014; Persson and Solevid, 2014). Because voting is often perceived as a norm that citizens should meet (Holbrook et al., 2003), survey respondents will intentionally misreport their behavior to more closely resemble an archetypal good citizen. Studies have found that giving respondents more options than the binary choice of voted or did not vote, including several choices that allow the respondent to save face by establishing the current failure to vote as a behavioral outlier, significantly reduces overreporting (Belli et al., 2006; Duff et al., 2007). Others have used the so-called item count technique to ascertain more accurate rates of turnout from samples (Corstange, 2009; Holbrook and Krosnick, 2010). And some scholars have merged techniques aimed at reducing social desirability bias with tactics used by survey methodologists to promote more accurate recall, finding fairly strong results (Belli et al., 1999; Belli et al., 2006).\textsuperscript{3}

2.1. Social desirability as internal or external pressure

Precisely how the social desirability hypothesis works on respondents has not always been made clear. It could be the case that respondents are reacting to an external pressure; i.e. they fear being identified by others as a defector from social convention. Alternatively, the mechanism may be internal. Respondents may govern their own behavior due to some psychological preference such as a desire to maintain a positive self-concept.

The literature has not yet reached a consensus on the relative advantages of internal and external pressure. That said, studies that focus on overreporting in the presence of others, like interviewers or third parties, have produced mixed results (Silver et al., 1986; Holbrook and Krosnick, 2010). But scholars arguing that internal pressures can matter have pointed out that, “Since expressive motivations can function without being displayed publicly (Schuessler, 2000) … over-reporting should not be limited to situations in which there is an interviewer” (Hanmer et al., 2014, p. 132). As evidence of this, vote overreporting still occurs among respondents to online surveys, where there is no direct interaction with another person (Ansolabehere and Hersh, 2012, Hanmer et al., 2014). Building off this view, we present a theory in the following section that does not preclude the possibility that external pressure plays a role in vote overreporting, but argues that internal pressures are real and significant, frequently because many society-imposed external pressures have been internalized by the respondent.

3. Theory and hypotheses

As we have discussed, prior scholarship has already developed a number of tools to decrease rates of overreporting on surveys. Without discarding these tools, we offer an additional technique to combat vote overreporting inspired by the theory of self- prophecy; one that we employ alongside these other widely-used techniques. The literature in cognitive psychology (e.g. Kiesler, 1971; Sherman, 1980; and Cialdini, 1984) argues that making a verbal or written commitment or predicting to behave a particular way makes the individual more likely to carry out those actions. The circumstances under which this so-called self- prophecy effect works are plentiful and diverse. Some examples include volunteering (Sherman, 1980), purchasing behavior (Morwitz et al., 1993), health club membership (Spangenberg, 1997), cheating on tests (Spangenberg, 1997), and gender stereotyping (Spangenberg and Greenwald, 1999). The behaviors studied even extend to highly contrived situations, such as responding to a request to sing the U.S. National Anthem over the phone (Sherman, 1980).\textsuperscript{4}

The insights from the self-prophecy literature were first extended to voting by Greenwald et al. (1987), though the most compelling evidence on self- prophecy has come in more recent years. Burgess et al. (2000), Green (2004), and Michelson et al. (2009) all show that those treated with a request to pledge to vote did vote at higher rates than those in a control condition.

Perhaps the most impressive aspect of the research on self- prophecy is the finding that the effects are substantial even when treatments are indirect and can last across long time periods. For example, Nelson and Norton (2005) designed a clever experiment that primed respondents to predict volunteering behavior after being asked to think about either Superman or superheroes in general. They find that predictions of helping behavior were higher in the superhero condition (the comparison to Superman decreased feelings of helpfulness), as was actual follow through three months after the initial prediction. As another example, Spangenberg (1997) shows effects that last six months after the request to make a prediction.

To develop our theoretical expectations relating to vote overreporting, we start with Sherman’s (1980) influential article. Sherman contends that people asked to predict if they will engage in a socially desirable behavior will be highly likely do so. That is, they have a tendency to mispredict (i.e. overpredicting socially desirable behavior) what they would really do had they not been confronted with the question. Then, having predicted conformity with some social norm, they follow through as a self- fulfilling prophecy. Sherman called this process the “self-erasering of prediction” as the prediction error (predicting compliance with the norm without an initial inclination to comply) was erased by actual behavior (complying with the norm) to bring the behavior in line with the prediction.

The literature that developed out of Sherman’s insights demonstrated effects in various domains long before there was agreement on the primary mechanisms at work. Spangenberg et al., (2003) provide clarity on this mechanism, arguing that cognitive dissonance is the primary force behind self-prophecy effects. This perspective for understanding self-prophecy can be explained as follows: People generally

\textsuperscript{2} Studies find giving respondents more options than a binary set (voted/did not vote) including choices that allow the respondent to save face by establishing the current failure to vote as a behavioral outlier, significantly reduces overreporting (Belli et al., 2006; Duff et al., 2007). These choices are now common in surveys, including the CCES survey we use; thus, any effects we find are above and beyond the reductions these answer choices produce.

\textsuperscript{3} While Persson and Solevid (2014) find face-saving options do not reduce overreporting, they find that these options did decrease reported participation in a broad range of political activities.

\textsuperscript{4} It is important to note that research has shown self-prophecy effects both for conformity with socially desirable behavior and abstention from socially undesirable behavior.
seek to maintain a positive self-concept. They want to think of themselves as people who do the right thing. Thus, when people are asked to predict whether they will engage in some socially desirable behavior, they are likely to predict compliance with that behavior. That is, they will overpredict their willingness to comply. This then sets the stage for their future behavior to fall in line with the prediction so as to avoid dissonance with their positive perception of themselves.

An example helps illustrate the best way to think of overprediction: Joe, a survey respondent, is asked whether he would help a friend moving houses. Joe prefers to think of himself as a nice person who is willing to help out, so he answers “yes.” After a week passes, a friend asks Joe to help him move. If Joe had not been faced with the survey question, he might look for an excuse to avoid helping out. In this situation, Joe’s “yes” response overestimated his actual willingness to help his friend. The counterfactual, then, is Joe’s decision whether or not to help his friend had he never been asked the question in the first place.

In studies that leverage self-prophecy, researchers ask respondents in the treatment group to predict their willingness to behave in a particular way and then compare this to the counterfactual of actual behavior among those who were not asked to make a prediction. In our context, we ask treated respondents to predict their willingness to be honest and then compare that prediction to the level of honesty among those in the control group. The norm of honesty is learned at a young age (see, e.g., Saxe, 1991), and thus becomes part of individuals’ positive self-concepts early in life. If self-prophecy is indeed the mechanism through which an honesty pledge works, respondents must first overestimate their willingness to be honest. Thus, our first hypothesis is:

**H1.** The rate of acceptance of a pledge to report voting honestly will be higher than the rate of actual honest reporting among a control group not given the honesty pledge request.

This hypothesis follows the standard approach in the self-prophecy literature, and for good reason. It compares the rate of honesty in the control as the measure of expected honesty in the treatment group, had they not been treated. If we find that those in the treatment group pledge to be honest at higher rates than those in the control group actually are honest, there is strong evidence of overprediction. This sets the stage for the second step in Sherman’s theory, where we expect to find that those who overpredicted their honesty will follow through on the pledge.

Broadly speaking, our main goal is to improve survey practices by testing if a simple honesty pledge, embedded in a web survey, increases the accuracy of future vote reports. Specifically, we argue that honesty pledges will increase accuracy by substantially reducing vote overreporting on post-election surveys. As noted above, those in the pledge condition will be likely to conform with the pledge to be honest. If cognitive dissonance is at work then, when we provide an opportunity to follow through, we expect the individuals in the pledge condition to be more honest. In terms of overreporting, we specify our main hypothesis as:

**H2.** Individuals treated with an honesty pledge will be less likely to overreport voting than individuals not treated with an honesty pledge.

4. Experimental design

To test these hypotheses, we employ a survey experiment, administering the treatment during the pre-election portion of the 2014 CCES to examine the effects during the post-election survey. We randomly assigned survey respondents in our sample into treatment and control groups. The treatment group was asked to take the honesty pledge while the control group answered a placeholder question completely unrelated to voting behavior:

- **Honesty Pledge:** “Are you willing to keep track of whether you voted in the upcoming November election and to be honest when you report this?” (N = 505)
- **Control:** “Are you going to eat dinner at home tomorrow?” (N = 495)

This treatment reflects our belief that social desirability acts as an internal pressure. The pledge is more explicitly internal than those used by Hanmer et al. (2014), as there is no insinuation that researchers can check if the respondent is lying. Yet, similar to the “bogus pipeline” design, this honesty pledge forces respondents who did not vote to confront directly the possibility of thinking of themselves as liars (Hanmer et al., 2014, p. 134).

During the post-election survey, respondents were asked whether or not they voted in the November election. We cross-referenced these responses with the validated voting data provided by Catalist to determine who voted and who did not, and who reported their behavior accurately.7 We present our results in the following section as difference-in-means and difference-in-difference analyses, comparing the difference between treatment and control for reported vote and for validated vote.

5. Results

5.1. Overprediction of future behavior

Sherman’s (1980) argument requires that individuals first overpredict the extent to which they will engage in a socially desirable behavior (in this case, being honest). Applying this to our study, we compare the level at which the treatment group said “yes” to the pledge to the level of honesty (in this case, accuracy in their vote report) displayed by respondents in the control condition in the post-election survey (Fig. 1).

Indeed, we find that respondents in the treatment group agreed to the pledge at a rate of over 85% while those in the control group accurately reported their vote less than 70% of the time. The difference is statistically significant at conventional levels. These findings support the theory that individuals overpredict the extent to which they will engage in honesty. That is, consistent with Hypothesis 1, a larger proportion of respondents pledged they would be honest in reporting their voting behavior than actually reported honestly when not asked to make a pledge.

5.2. Vote overreporting

We now look to the experimental results to see if the honesty pledge was successful in its stated goal: reducing overreporting among survey respondents. Since our treatment is exposure to the pledge, not the answer to the pledge question, the remaining analyses are conducted without regard to the latter. This is the universal approach in the experimental literature as there are unobservable attributes of those who answer “yes” and “no” to the pledge that obscure our ability to draw a direct comparison of either group in isolation to the control group (see, e.g., Clifford and Jerit, 2016). The findings we present in Table 1

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6 A logistic predicting treatment assignment as a function of age, sex, education, race, ideology, partisan identification, and family income produced $\chi^2 = 3.92, p = 0.7891.$

7 Catalist is a private firm that contracts with YouGov to match voting records to respondents. They did this for the entire CCES without access to our study materials. Any errors in their validation process would be expected to be distributed randomly across our treatment and control conditions and thus not limit our ability to compare the groups to one another. Ansolabehere and Hersh (2012) tested the quality of Catalist’s data and concluded that the data are of high quality.
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In the full sample, respondents in both conditions report voting at more than 70%. If this were an accurate reflection of reality it would be a remarkable turnout rate for a midterm election, which historically have actual turnout rates below 50%. Yet, the problem of vote overreporting is very much in evidence—according to voting records, across both of those groups, just over 40% of respondents voted. The gap between the groups in terms of validated vote is only 1.59 percentage points, yet the gap in reported vote is nearly 7 percentage points. The lower rate of reported voting in the pledge condition provides evidence that the honesty pledge was successful in bringing about the desired outcome. The more definitive evidence comes from leveraging the validated vote data to calculate the rate of overreporting (i.e. the difference between reported voting and validated voting) for the control and treatment conditions. The primary treatment effect of interest is the difference in overreporting between the treatment and control conditions. As Table 1 shows, this treatment effect among the full sample is a statistically significant and substantively meaningful 5.28 percentage points. Whereas more than 30% of respondents in the control overreported their vote, that rate dropped to roughly 25 percentage points in the honesty pledge condition.

The effect across the full sample is informative, but as Silver et al. (1986) show, it is vital that we examine the effect among validated nonvoters, as they are the only group at risk of overreporting. As our theory and prior literature argues, it is those citizens who abstain from voting and feel badly about it who are at the highest risk of overreporting. In the control condition, overreporting among nonvoters was indeed high—a full 57% of validated nonvoters reported that they voted. This result is similar to the 50% overreporting rate among nonvoters that Ansolabehere and Hersh, (2012) calculated in the 2008 CCES. Whereas the results for the full sample suggested a greater than 5-percentage-point effect, among nonvoters the effect size doubles to almost 11 percentage points, bringing the rate of overreporting below 50% for those in the pledge condition. This effect is substantively large when set against the literature which often shows either no reduction in overreporting or shows single-digit reductions (see Hanmer et al., 2014).1

6. Conclusion

In this study we have developed a simple, yet effective, tool to combat vote overreporting that reduced the rates of dishonesty in reported turnout by an impressive 11 percentage points among nonvoters. Considering the threat that vote overreporting poses to political science, such a difference is encouraging. The tool we developed is administered in pre-election surveys and was applied alongside previously developed methods of reducing overreporting. Thus, the effect we find is additive. For any survey conducting pre-election and post-election waves, then, the honesty pledge can serve as a quick, inexpensive way to further reduce overreporting by a substantial margin on top of the other methods that have already been developed.

This study, while narrowly applied to the problem of vote overreporting, speaks to broader psychological theories that seek to explain human behavior. We have sought not only to show that honesty pledges decrease overreporting, but to show precisely how they work in order to inform future research. The results presented here suggest that internalized social norms can be leveraged to encourage particular behaviors, which may go far beyond accuracy in vote reporting. Future research is needed to more completely understand the limits of these tools.

Few people argue that vote overreporting is benign. Furthermore, those working on this issue have generally done a good job of attempting to conceptualize the cognitive processes that serve as the foundation of the inaccurate survey responses. This is also what we have attempted to do here; we have sought to locate a specific

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1 We considered a number of alternate treatment effects. Examining underreporting, survey attrition, and voter turnout, we find that the pledge had no substantive effects.
mechanism—social norms—and invert them to our advantage. Moving forward, it is exactly this leveraging of the cognitive process that will unlock further improvements to our measurement of voter turnout.

References


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