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Response Latencies as Evidence of Social Desirability Bias in Voter Turnout Overreports

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Abstract

Most vote validation studies assume that socially desirable responding is the cause of turnout overreports. Still, very little has been done to test this assertion. Using response latency measures from the 2020 Cooperative Election Study and its vote validation data, I examine the relationship between overreporting turnout and response latencies. Emulating research on the effect of deception on response latencies I test whether turnout overreports have a similar effect to that of deception on the response latencies for self-reported turnout. I find that the respondents who overreport turnout have higher mean response times than validated voters on average, and address the role memory in predicting the length of response latencies for the turnout self-reports. This study sheds light on the cognitive mechanism that underlies the occurrence of overreports in survey research, and provides new evidence to support the view that overreports of voter turnout occur due to socially desirable responding.

Keywords

turnout, self-reports, response latencies, misreports, deception, social desirability bias

Introduction

Response latencies measure the time it takes someone to answer individual questions within surveys. Researchers can use these measures as indicators of "the information processing involved in answering survey questions" (Mulligan et al., 2003, p. 292). More importantly, different modes of response can impact how long it takes to provide an answer to questionnaire items. Specifically, false responses have been found to consistently result in longer response latencies because deception requires greater cognitive effort than truth telling. And, since overreports of voter turnout are false reports electoral participation one should expect that overreporting should result in longer response times. This evidence can finally help identify the main cognitive process involved in overreporting turnout in survey research, and establish whether social desirability bias is at the root of this phenomenon.

Most studies of overreporting suggest that socially desirable responding is the cause of this particular form of response bias. For example, in the first validation study ever conducted Parry and Crossley (1950) attributed overreports to "social pressures" (p. 70). Anderson and Silver (1986) claimed that individuals overreport turnout because "voting is a socially desirable behavior" (p. 775). Katosh and Traugott (1981) argued that "that a variety of social psychological pressures [are] known to result in systematic overreports of eligibility and participation" (p. 519) in elections. And, Karp and Brockington (2005) argue that respondents "have a strong incentive to offer a socially desirable response" (p. 825) with regard to their voting behavior. In fact, most vote validation studies advance the untested view that social desirability bias is the cause of overreporting (though see Holbrook and Krosnick (2010) for a study that tests this claim directly).

Socially desirable responding is a form of response bias that allows survey respondents "to give overly positive self-descriptions" (Paulhus, 2002, p. 50) regarding their attitudes and behaviors when answering questionnaires. Similarly, turnout overreports help nonvoters present themselves in a positive light by appearing to fulfill the democratic norm of voting. Thus, the assumption that socially desirable responding is what causes overreporting comes from the

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knowledge that in American society "the social meaning of voting is uncontested", and from the belief that failing to participate in elections is seen by many as a violation of a fundamental act of democratic citizenship (Rolfe, 2012). Ultimately, the result of both overreporting and socially desirable responding is the collection of untruthful self-descriptions which bias survey data.

Validation scholars have been very careful not to say that overreports are intentional falsehoods about going out to vote, because saying that respondents are being deceptive can imply that a moral judgment is being made by the researcher on the respondent. However, if evidence is found that overreports have a similar response latency pattern to that of deceptive responses, then one could make inferences about the cognitive mechanism involved in overreporting. Voter turnout overreports are false reports of a normative behavior, but instead of assuming that overreports are linked to socially desirable responding, as does most of the literature on overreporting, I test this relationship. I borrow methods from the lie detection and deception literature to establish whether the cognitive effort involved in overreporting turnout is more similar to that of deception rather than forgetfulness. Response latencies, the time it takes to answer an item in a questionnaire, have proven to be helpful indicators in detecting deception, and research in cognitive social psychology has found a consistent link between deceptive responses and longer response times (Mayerl et al., 2005; Vendemia; Buzan & Green, 2005; Verschuere et al., 2011; Walczyk et al., 2003; Walczyk et al., 2009).

Do overreports of turnout result in longer response latencies similar to deceptive responses? I answer this question by using response latency data from the 2020 Cooperative Election Study (CES) to measure the cognitive effort it takes to report turnout in the post-election portion of the questionnaire. I use the Catalist voter file data included in the CES to identify over-reporters and **estimate the effect of over-reporting on response latencies.** Results show that those who falsely reported turning out to vote (i.e. over-reporters) had response latencies for the self-reported turnout question that were are significantly longer on average than the response times of validated voters who honestly reported participation. Higher levels of cognitive effort in voter turnout overreports demonstrate the intentionality of these false responses and support the notion that overreports are the result of socially desirable responding. I also address the possible role of memory failure as the source of longer response times, and conclude by discussing the implications of my analysis on future research.

Voter Turnout Overreports

A substantial number of survey respondents misreport their voting behavior. They identify themselves as voters when they are actually nonvoters causing scholars of voting behavior to overestimate participation elections. This overestimation of turnout in survey research has engendered vote validation studies where public registration and voting records are matched to survey data in order to verify the veracity of turnout self-reports. Vote validation studies have in great measure focused on assessing the incidence of overreporting, and identifying the individual level predictors of overreporting, but few have sought to further understand cognitive mechanism that underlies the occurrence of turnout overreports (Parry & Crossley, 1950; Clausen, 1968; Anderson & Silver, 1986; Katosh & Traugott, 1981; Karp & Brockington, 2005). Findings show that high levels of education (Bernstein et al., 2001), political knowledge (Brenner, 2012), partisan strength (Katosh & Traugott, 1981), and interest in politics (Anderson et al., 1988; Karp & Brockington, 2005) are associated with higher rates of overreporting.

As I mention in the introduction, most studies of overreporting suggest that socially desirable responding is the cause of this particular form of response bias. Alternative explanations for the occurrence of overreports include the view that overreports are the result of memory failure and that survey respondents easily forget whether they voted or not (Adamany & Dubois, 1975; Adamany & Shelley, 1980; Abelson et al., 1992; Stocké & Stark, 2007; Belli et al., 2001; Belli, Moore & Van Hoewyk, 2006), that survey nonresponse rates are responsible for overreports (Burden, 2000), and that overreporting is an artifact of poor record keeping or a flawed matching process (Abramson & Claggett, 1992; Cassel, 2003, 2004; Berent et al., 2016). However, research on the validation process has found that public registration and turnout record keeping throughout the United States has little to do with turnout overestimation in surveys (Ansolabehere & Hersh,2010), and that overreports are the main source of turnout overestimation in election surveys (Enamorado & Imai, 2019; Enamorado et al., 2019). Still, socially desirability bias continues to be invoked as the most plausible reason for the occurrence of overreporting (Parry & Crossley, 1950; Anderson & Silver, 1986; Katosh & Traugott, 1981; Karp & Brockington, 2005). This diversity of perspectives on what causes overreports is what motivates the research presented in this paper, which aims to discern the cognitive mechanism that underlies this phenomenon.

Response Latencies and Deception

Response latencies signal the level of cognitive effort expended in responding to questionnaire items. Mayerl (2013) explains that "response latencies are used as a proxy measure of spontaneous versus thoughtful responses" (p. 2), and that some response effects, like socially desirable responding, require high cognitive effort resulting in longer response latencies. Political science has most often used response latencies to test the relationship between the speed of answers and the strength of attitudes (Huckfeldt et al., 1998; Mulligan et al., 2003; Burdein et al., 2006). Though political science

has not used response latency measures in relation to reports of political behavior, cognitive social psychology has well established that deception reliably slows response times when answering multiple questions types, including "true or false" questions (Vendemia et al., 2005), "yes or no" questions (Verschuere et al., 2011), open-ended questions (Walczyk et al., 2009), questions with multiple responses (Walczyk et al., 2003), and Likert scale questions (Mayerl, 2013).

Why does deception increase the length of response latencies? Telling the truth is easier and deception is more cognitively taxing because truth telling is the human default. Walczyk et al. (2003) have demonstrated that providing deceptive answers should take longer than answering honestly, because deceptive responses involve three cognitive events. First, there is an activation component where the respondent receives the stimulus, meaning the question is read from a cellphone or computer screen in the case of online self-administered surveys, which activates information stored in memory. Second, the respondent decides to lie or not, specifically whether or not to report the information activated in memory. Third, once the respondent has decided to deceive, they must construct the lie. Hence, engaging in these three cognitive processes has a direct effect on increasing the time it takes to answer a question. And, while the third cognitive process discussed here does not occur when the respondent is provided with response alternatives, the two preceding cognitive events should still increase response times.

I propose that overreporting should be similar to deception responses because giving a false response to a question requires more cognitive effort which can be measured as longer response latencies. I root this argument in the fact that major political surveys continue to overestimate turnout when using respondents' self-reported behavior (Burden, 2000) even in spite of the implementation of new question wording that provides face saving alternatives (Duff et al., 2007). Some would suggest that online self-administered surveys, like the one in this study, should reduce the incidence of socially desirable responding altogether because respondents are not interacting with an interviewer. However, while some survey mode studies find that web-based surveys increase reports of sensitive information (Kreuter, Presse & Traugott, 2008; Krumpal, 2013), others find no difference between web-based surveys and other modes of administration (Risko, Quilty & Oakman, 2006; Hancock & Flowers, 2001; Couper et al., 2001, March). Indeed, the leading scholar of socially desirable responding, Delroy Paulhus (2002), maintains that individuals engage in socially desirable responding "even when there is no audience to motivate" (p. 62) them to do so.

Memory Failure and Turnout Overreports

Many vote validation studies explore the role of memory failure in augmenting the incidence of turnout overreports in surveys. Belli et al. (2001) state that "it has yet to be firmly established whether respondents are being intentionally deceptive or whether the misreporting is due to memory confusion about one's actual voting behavior in the most recent election" (p. 494). They argue that both cognitive factors, social desirability bias and memory failure, can be responsible for the occurrence of overreporting while favoring the memory failure explanation. In a previous paper, Belli and Traugott (1999) along with other scholars find that overreporting "is predicted to become more pronounced with increases in elapsed time between the election" (p. 93) and the administration of a survey interview. More specifically, they find that overreporting increases from the first week to the second week after the election, and state that this finding is evidence that memory failure is one of the cognitive processes at play in overreporting turnout. Moreover, Belli et al. (2006) propose "that these two processes [social desirability and memory failure] operate concurrently when a respondent is queried about their voting behavior" (p. 752). The cognitive effort demanded by searching one's memory of a particular event, like voting in an election, might grow as the time elapsed from the event itself also grows in addition to the increased effort generated by social desirability concerns. Consequently, the time it takes for respondents in a survey to report whether they voted or not could increase the further away from the election the questionnaire administration is conducted.

Expectations

Honest reports of turnout by validated voters should generate shorter response latencies on average, and false reports of turnout, meaning overreports, should generate longer response latencies. When respondents are asked whether they went out to vote in an election their memory is activated, and information about participation or non-participation will become available in their minds. Individuals who actually went out to vote will have little incentive to lie, so they will use the memory of voting to automatically report their participation in the election in question. Nonvoters will decide whether to report the truth or falsely report going out to vote. Once they have decided to be deceptive they will falsely report that they "definitely voted in the General Election," having chosen to present themselves to the researchers as voters. Since the cognitive process of making the decision to deceive, on its own, has been found to lengthen response times (Walczyk et al., 2003) survey respondents who overreport turnout should, on average, have longer response latencies than those who honestly report participation.

H1: Overreporting voter turnout is predictive of longer response latencies for the self-reported turnout question.

H2: Week of questionnaire administration is predictive of longer response latencies for the self-reported turnout question.

Additionally, longer response latencies should also be associated with the week of questionnaire administration from the date the election was held. Increases in the time period elapsed between the election and survey administration will slow the process of searching for memory of the event (Belli et al., 1999; Belli et al., 2001; Belli et al., 2006). When events have occurred more recently they are more accessible in memory, and when they have occurred further in past they become less accessible. Thus, when asked about one's behavior in a past electoral event it should take longer to remember if we went out to vote or not if the election occurred further in the past.

Data and Methodology

This study examines whether overreports of voter turnout, false versus truthful reports, predict the length of time it takes a survey respondent to answer affirmatively about their participation in a single presidential election by using 2020 Cooperative Election Study data (CES). The 2020 CES (Schaffner, Ansolabehere & Luks, 2021) is an online self-administered election survey with approximately 61,000 respondents, and includes both pre-election and post-election questionnaires, which were fielded from September 29th to November 2nd and November 8th to December 14th respectively. The pre-election questionnaire asks respondents about their political attitudes regarding a wide range of issues and about their vote preferences in the upcoming election. The post-election has a shorter set of items asking mostly about voting behavior and vote choices in the election that just occurred. The CES also includes vote validation data regarding both registration and participation of its respondents in the corresponding General Election of the year the survey was conducted, all provided by the progressive political data firm Catalist LLC.[1] The vote validation process occurs as follows, YouGov, the polling firm that recruits participants for and administers the CES, provides the names and addresses of participants to Catalist. Catalist then matches the participants in the CES to their comprehensive national voter file using a proprietary algorithm. Once respondents are matched, Catalist provides YouGov with registration and turnout records for the matched respondents.

Since the CES is an online survey, part of the available data is the measurement of the time it takes for each individual to answer each question in the survey. Every question or group of questions in the CES pre-election and post-election questionnaires has a unique page within the online survey. YouGov, the polling firm that administers the CES survey, tracks how much time it takes for each respondent to move from one question to the next in seconds and milliseconds. In essence, page timing data is measuring the period during which the survey question becomes visible to the respondent, the respondent reads the question, formulates an answer, makes a report and then moves on to the rest of the survey. These types of response time measurements are known as passive response latencies, as opposed to active response latencies which measure the reaction time between the end of a question being read and the start of a verbal or written response (Andersen & Mayerl, 2017). These page timing measures are unobtrusive to the respondent because they are a feature embedded into the online survey instrument and respondents are unaware it is happening.

Respondents to the CES self-administer the survey and have no limits to the length of time they can take to answer the full survey. Ansolabehere and Schaffner (2015) found that 45% of respondents in the 2010-2014 Panel Study of the Cooperative Congressional Election Survey (now CES) said they engaged in activities like doing chores, taking a break, dealing with children, and talking on the phone, among others. As a result, there are some extreme response latencies within the page timing data of the CES. Ansolabehere and Schaffner (2015) find that distractions and interruptions during the completion of the survey do not affect the quality of the data collected by the CES. However, latencies of minutes, hours or even days cannot be used as valid measurements of cognitive effort for single answer questions in surveys.

These outlier response latencies are not generated by the cognitive process that researchers are typically interested in studying. They also skew the data in a ways that prevent researchers from making valid inferences. For example, outliers can "increase the mean, inflate the standard deviation, and change measures of shape such as skewness by a very large amount" (Ratcliff, 1993, p. 512). Thus, methods to minimize the effects of outliers, like trimming extreme values, must be applied to the page timings used in this study (Ratcliff, 1993). Methods, like trimming, allow researchers to create a more accurate assessment of respondents' cognitive processing when answering the dependent variable question under study (Fazio, 1990; Ratcliff, 1993; Mayerl, 2013).

The analysis in this paper is restricted to respondents who said they "definitely voted" in the General Election of 2020 in order to create two specific comparison groups among respondents who gave the same response to the same self-reported turnout question. Those who either gave an accurate or false affirmative turnout response are the best comparison groups for the analysis of response latencies in this case. Consequently, I have restricted the dataset to only post-election respondents who said they "definitely voted in the General Election," making the final total for analysis a sample of 40,509 respondents (See Table 1). Honest nonvoters are not included in this analysis because there are multiple response options to report nonvoting, and question construction has been found to affect response latencies (Tourangeau & Yan, 2007; Mayerl, 2013). The CES uses similar question wording to that proposed by Duff, Hanmer and colleagues (2007), meant to reduce the incidence of overreporting. This question wording could increase the cognitive load of reporting non-participation because honest nonvoters must choose between four alternatives for reporting non-participation, while

Table 1. Post-Election Survey Respondents by Self-Reported Turnout.

Which of These Statements Best Describes You?	*n*	%
I did not vote in the election this Nov	2,119	4.71
I thought about voting this time, but didn't	1,083	2.41
I usually vote, but didn't this time	553	1.23
I attempted to vote but did not or could not	701	1.56
I definitely voted in the general election on Nov 2	**40,509**	**90.1**

Note: Values represent the weighted total and percent of 2020 CES respondents among post-election questionnaire respondents by self-reported turnout. Emphasis is added to the respondents who reported they definitely voted.

those nonvoters who choose to overreport participation have only one alternative to do so. Mean response latencies for each of the four nonvoting response alternatives support this view because each mean is progressively larger when moving from one alternative to the next (see Table A1 in the Supplemental Index)

The self-reported turnout question has its own unique page in the CES survey, meaning the page timing data for this question measures response latencies for this question alone. I trim the dependent variable, meaning the self-reported turnout page timing, by eliminating all values above the 95th percentile because trimming extreme response latency values strengthens the validity of any inference made regarding the connection between response latencies and deceptive answers (Fazio, 1990; Ratcliff, 1993; Mayerl, 2013).[2] The mean page timing for the self-reported turnout question among those who reported participating in the 2020 General Election before trimming was 17.465 seconds with a median timing of 7.708 seconds. As seen in Table 2, the mean response latency for self-reported voters (8.395s) is now closer to its median (7.497s) after trimming. The total number of outliers removed above the 95th percentile were 2,021 observations.

According to the social psychology literature the ideal design for the analysis of response latencies includes a control measure of baseline response speed (Fazio, 1990; Mayerl et al., 2005; Mayerl, 2013). This baseline is commonly operationalized as the calculated mean of response latencies from filler questions, meaning questions thematically unrelated to the item of interest. Baseline response timing controls for any factor that may introduce noise to into response latency data, like question wording and construction, and is necessary for the proper interpretation of response latencies "as a proxy measurement of mental processes" (Mayerl, 2013, p. 4). This measure on its own shows us how long it typically takes each individual in the study to answer questions of similar construction to that of the item of interest, in this case questions similar to that of the self-reported turnout question. But in statistical modeling, including baseline timing as a control allows for the detection of differences in response times to the turnout question controlling for typical individual response latencies.

Table 2. Descriptive Statistics after Trimming for Baseline, Self-Reported Turnout and Placebo Timing.

Timing Variable	*n*	Median	Mean	Min	Max
Self-reported turnout	38,488	7.497	8.395	0.567	26.000
Placebo/Party ID	38,483	3.221	3.749	0.734	12.917
Baseline timing	40,509	6.855	7.233	1.788	19.403

Note: Weighted total of self-reported voters after trimming; and median, mean, minimum value and maximum value in seconds for the self-reported turnout timing, party identification timing and baseline timing in the 2020 CES.

I created the baseline page timing measure by calculating the mean from the page timings of twenty single-answer questions, like the self-reported turnout question, including 16 page timings from the pre-election and four page timings from the post-election questionnaires in the 2020 CES survey (see the appendix for a list and details on how the baseline timing was calculated). I implement a different method from that of trimming to minimize the effects of extremely long response latencies among the page timings incorporated into the baseline timing measure. Following the procedures used in Schaffner and Roche (2016), rather than eliminating all values above the 95th percentile for each question in the baseline I replace the values above the 95th percentile with the value at the 95th percentile. This method, known as winsorizing[3] (Beaumont & Rivest, 2009; Ghosh & Vogt, 2012; Ratcliff, 1993), helps to keep as many observations as possible in the analysis of the effect of overreporting on response latencies for self-reported turnout, otherwise thousands of observations would be excluded from the analysis. The mean of the baseline timing for all 2020 CES post-election respondents who said they voted is 7.233 seconds (see Table 2).

Controlling for baseline timing should be sufficient to **control for timing differences across individuals that are caused by demographic difference among CES respondents**. However, to provide more confidence in the patterns found in the analysis presented below, I also include a placebo test that measures the effect of overreporting turnout on the page timing for the party identification question. This question is part of the post-election wave of the CES and comes shortly after the self-reported turnout question. It is a

single-answer question with multiple alternatives, but differs from the self-reported turnout question in that overreporting turnout should be unrelated to the response timing for a question about party identification. I applied trimming to the party identification page timing by eliminating all values above the 95th percentile as I did with the self-reported turnout page timing. The party identification timing has a mean of 3.812 seconds after trimming for all post-election respondents who answered the self-reported turnout question (see Table 2).

The plots in the left hand column in Figure 1 show the distribution of observations for the self-reported turnout timing after trimming and include a reference line indicating the mean timing for this response latency in the 2020 CES. The plot reveals higher frequencies around the 7 second mark for self-reporting turnout with fewer observations the higher the response timing becomes. The distribution of observations for the baseline timing measure, plotted in the right hand column of Figure 1, has a shape more similar to a bell curve or normal distribution. However, higher frequencies are found closer to the mean of the baseline timing when compared to the distribution of the self-reported turnout timing. The distribution of observations for the party identification page timing plotted in the second column of Figure 1 show highest frequencies observed around the 3 second mark.

As I mention above, the CES is conducted in close proximity to Election Day, suggesting that it is unlikely that respondents forget whether they went out to vote or not. Still, vote validation studies have found that memory is a cognitive factor in the incidence of overreporting in surveys (Belli et al., 1999, 2001, 2006). These studies have demonstrated the memory is a factor that increases turnout overreports by showing that there is a relationship between overreporting and the time elapsed from the election to the date at which the survey was administered. Furthermore, response latency scholarship argues that searching one's memory during the response formulation and reporting process slows response times (Walczyk et al., 2003, 2009).

The post-election wave on the 2020 CES started to be administered to respondents on November 8th, five (5) days after the General Election. Using the date on which respondents started taking the post-election survey I determined in which week after the election participants responded to the post-election questionnaire. The variable indicates whether respondents started to answer the post-election questionnaire in the first week after the election or the second week, and so forth until the fifth week after the election. Table 3 shows that the bulk of self-reported voters responded to the CES within 2 weeks of the election. This suggests that most overreports in the CES may not be the result of memory failure, still people who answered the post-election survey further from the election may take more time to respond to the self-reported turnout question.

To summarize, in the OLS regression models reported below, **the dependent variable is the self-reported turnout page timing or response latency**, the control variables in the model are the baseline page timing, and the variable for week of survey self-administration. **Response latencies are the dependent variable because it is the type of response, truthful or not truthful, that determines whether it takes a shorter or longer time to provide a response. It is overreporting or not what results in longer response latencies, and longer response latencies are not what causes respondents to overreport.** Thus, the independent variable of interest is a dummy that distinguishes between self-reported voters who have a validated voter turnout record, and those who do not. Self-reported voters who are validated voters were given a value of zero (0) and self-reported voters who

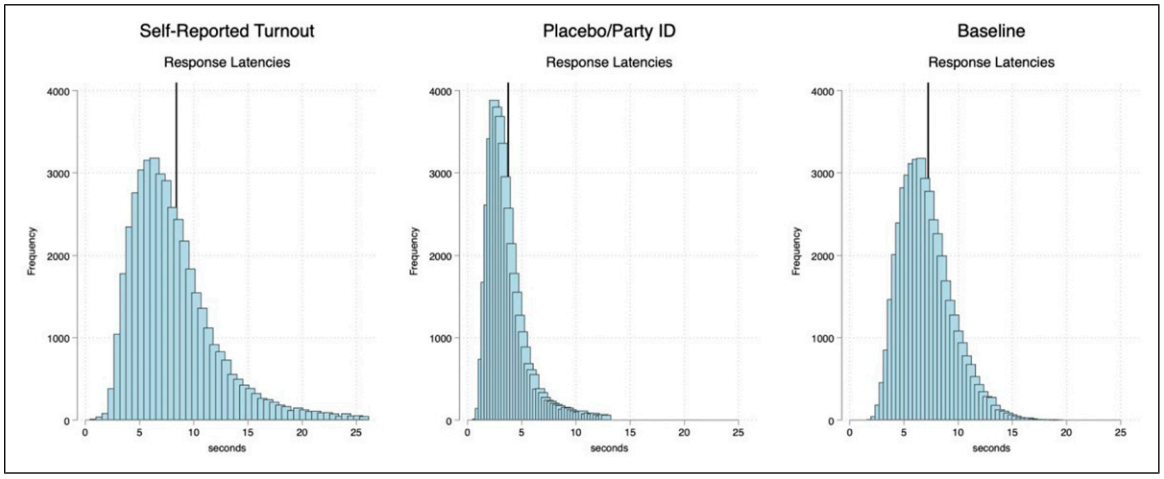

Figure 1. Frequency distributions for self-reported turnout, placebo and baseline page timings. Note: Distributions represent frequencies after trimming and transformation of page timing outliers. Response latencies are measured in seconds and vertical reference lines represent the mean page timing value for each distribution.

Table 3. Self-Reported Voters by Week of Survey Administration after the General Election.

Week of Administration	*n*	%
1	15,107	37.3
2	14,743	36.4
3	4,953	12.2
4	5,575	13.8
5	131	0.3
Total	**40,509**	**100%**

Note: Values represent the weighted total and percent of 2020 CES post-election respondents who reported that they "definitely voted" by week of survey administration after the election.

Table 4. Turnout Over-Reports and Honest Reports Among Post-Election Self-Reported Voters.

Self-Reported Voters	*n*	%
Over-reporters	10,087	24.9
Valid voters	30,422	75.1
Total	40,509	100

Note: Values represent weighted total and percent of self-reported voters by vote validation status in the 2020 CES post-election survey.

are over-reporters were given a value of one (1). A great majority, specifically 75.1%, of those who reported voting in the 2020 CES are validated voters. This means that most of those who said that they voted when answering the CES actually participated in the 2020 General Election. However, 24.9% of those who said they "definitely voted" did not have a validated voter turnout record; that is, 10,087 respondents overreported turnout in the 2020 CES (see Table 4).

Results

Table 5 shows the results of OLS regression modeling to test whether response latencies for the self-reported turnout question are significantly longer for over-reporters than for validated voters. Overreporting turnout in the 2020 CES resulted in a significant increase in the length of response times for the self-reported turnout question; this indicates that overreporting involves greater cognitive effort than honest reports of turnout. False reports of turnout, overreports, take 0.434 seconds ($p < 0.01$) more time on average than honest reports of turnout (see Table 5). This effect is comparable to results found in the literature on lie detection where most studies reported an average response latency increase of 0.20 seconds, and 1 second for deceptive answers in experimental settings. With a mean response latency of 8.395 seconds for the self-reported turnout question, over-reporting turnout would increase that timing to 8.829 seconds. What's more, the size and statistical significance of the effect of overreporting on self-reported turnout response latencies hold in a variety of robustness checks conducted in the Supplemental Index.

The significant positive relationship between over-reporting and its corresponding response latencies suggests that overreports are tantamount to deceptive responses because falsely reporting participation requires higher cognitive effort than honest reports. Social psychology studies of deception show that deceptive responses require more cognitive effort than honest responses thereby leading to longer response latencies. Consequently, the finding that overreports cause a statistically significant increase in response latencies measured from turnout self-reports suggests that at least some nonvoters who overreport do so intentionally. This new piece of evidence uncovers that overreporting requires more cognitive effort in the same way that engaging in deception does. These results cannot certainly determine intentionality in overreporting turnout, however they convincingly show that nonvoters who overreport take more time on average to answer the self-reported turnout question.

Using OLS regression to measure the effect of being an over-reporter on the placebo page timing while controlling for baseline timing and week of survey shows that over-reporting does not result in longer response latencies associated with the party identification question. In fact, over-reporters take less time on average to report their party identification when compared to validated voters by 0.007 seconds, though this is not statistically significant (see Table 5). This placebo test is a good indicator of the validity of the results found in the initial model because overreporting has a positive effect on response latencies for the self-reported turnout question, but is negatively related to the response latencies of another item in the same questionnaire with similar construction. Evidently those who overreport have little trouble stating their party identity, but think more about what response to give when asked about their participation in elections. The negative relationship between overreporting and the response latencies for party identification demonstrates that these respondents are using information readily available in their minds.

The time period elapsed between Election Day and the week of interview increased page timings for the self-reported turnout question by 0.052 seconds ($p < .01$). This size of the effect of week of administration on turnout response latencies at first glance seems to be small, yet this effect is the average page timing increase per week after the election. Moving from the first week to the fifth week after the election in the 2020 CES results in an increase of 0.26 seconds, an effect of approximately 3 tenths of a second. This effect is exactly 0.174 seconds smaller than the effect of overreporting on the response latencies for the turnout self-report question. Thus, overreporting is the main source of heightened cognitive effort in self-reports of voter turnout, not memory lapses resulting from the week of interview during this election survey.

Discussion: Predicting Overreports with Response Latencies

Having established that false reports of voter turnout require more cognitive effort than truthful reports of electoral participation I will discuss the viability of predicting overreports of voter turnout with response latencies. Implementing the use response latencies to identify overreporting requires further investigation and methodologically sophisticated experimentation that is beyond the scope of this paper, and is tangential to its purpose of linking overreports to socially desirable responding. Still, the research conducted here could serve as the initial step in determining whether this may be viable. The main challenge to using this measure as a predictive variable of overreporting is the fact that both truthful and false reports of electoral participation have high variation in the length of time it takes respondents to provide both types of responses. Furthermore, the causal flow in the study of response latencies shows that the type of response, truthful or not, is what impacts the response time, not the other way around. To be clear, long response times are not what causes people to provide false self-reports in surveys.

The kernel density plot in Figure 2 further illustrates the difficulty of identifying overreports by using response latencies. In order to create this plot I captured the residuals from a linear regression of the response latencies for the turnout self-report question, the dependent variable, by each of the 20 response latency items used in the baseline timing, the independent variables. The plot represents the shape or distribution of response time residuals for honest nonvoters, truthful voters, and over-reporters. The plot shows that the shape or distribution of response time residuals for truthful and false reports of turnout are very similar, almost indistinguishable. What's more, the mean response latency for truthful reports of turnout in the 2020 CES is 8.393 seconds and the mean response latency for overreports is 8.403 seconds, a difference of only 0.01 seconds. These data suggest that it may be virtually impossible to identify a cutoff point at which turnout self-reports may be more likely to be overreports.

Table 5. OLS Models for Self-Reported Turnout Timing and Party Identification Timing.

	Self-Reported Turnout Page Timing	Placebo/Party ID Page Timing
Overreporting	0.434*** (0.073)	−0.007 (0.034)
Week of administration	0.052*** (0.024)	0.058*** (0.013)
Baseline timing	0.990*** (0.014)	0.397*** (0.007)
Constant	1.075*** (0.107)	0.797*** (0.054)
Observations	36,760	36,760
R-squared	0.334	0.243

Note: Standard errors in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

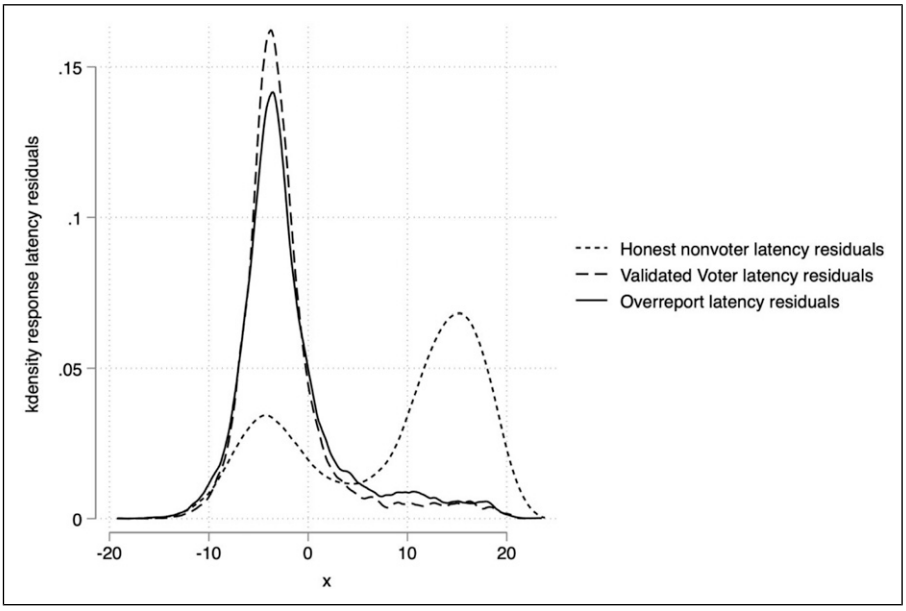

Figure 2. Kernel density plot for response latency residuals by type of turnout self-report.

Table 6. Logit Models for Overreporting by Self-Reported Turnout Page Timing.

	β (S.E.)
Self-reported turnout page timing	0.423*** (0.140)
Week of administration	−0.619*** (0.078)
Constant	1.502*** −0.126
Observations	34,043
Pseudo R-squared	0.062

Note: Standard errors in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$ Full model results are available in the S.I.

Still, many will be interested to see how the response latencies measure for the turnout self-report question performs in statistical modeling of overreporting. In Table 6, present results for a logistic regression of overreporting predicted by self-reported turnout page timing, and week of interview self-administration. The regression also includes variables accounting for age, education, gender, white racial identity, family income, church attendance, strong partisanship, interest in politics, and political knowledge (variable coding is available in the Supplemental Index). This model compares over-reporters versus validated voters, not over-reporters versus honest nonvoters which is the most typical way to model overreporting. In this model the response latencies measure is associated with a greater likelihood to falsely report turnout in the 2020 General Election that is statistically significant at the $p < 0.01$ level. These results show that the relationship between overreporting and response latencies holds even when controlling for a multitude of factors that are typically predictive of overreporting.

Conclusion

In this study, I examine the cognitive mechanisms through which turnout overreports may occur during the process of survey administration. As discussed, overrepor6ing electoral participation in surveys is thought to be caused mostly by social desirability bias and memory failure. However, many vote validation scholars who have attributed overreporting to social desirability bias have failed to explore the implications of this claim, while the merits of memory failure have been well documented. Socially desirable responding, as a form of response bias, causes individuals to provide inaccurate self-reports of their attitudes and behaviors, and manifests as deceptive responses to questionnaire items (Paulhus, 2002). Since studies show that deceptive responses require more cognitive effort, which can be measured using response latencies, I examined whether making false reports of turnout is associated with increasing the length response latencies in order to address the existing gap in the study of social desirability bias in relation to turnout overreports.

Even when using data from an online self-administered survey, I find that overreporting turnout is significantly related to longer response latencies while controlling for baseline timing and time elapsed from the election. Research could find larger effects of overreporting on response latencies in telephone and in-person surveys because interaction with another individual can elicit stronger normative considerations. My findings in a least likely case, an online election survey, support and confirm the widely held assumption that overreports of voter turnout are the result of socially desirable responding. Using an unobtrusive measure of response times OLS modeling showed that overreporting requires more cognitive effort than truthful reports of turnout, demonstrating that overreports are likely to involve intentional deception while truthful reports involve simply reporting facts stored in memory.

Theories, concepts and methodological approaches employed here, can serve as a new starting point in understanding why nonvoters overreport turnout in election surveys. First, the evidence presented here suggests that there must be further exploration of whether response latencies may be useful in identifying overreports when vote validation is not available to survey researchers. Still, investing in vote validation is currently the most reliable way of identifying overreports, and providing less biased survey estimates of voter turnout. This is especially the case since data in this study shows that the residual timing distributions for both truthful voters and over-reporters are almost indistinguishable. Second, the results of this study suggest that future research should explore whether restricting the time provided to report turnout may yield more accurate reports with less social desirability considerations informing the answers to the turnout self-report question. Following the fact that accurate reports of turnout tend to have shorter average response times, then limiting the time provided to report turnout could force survey respondents to only relay information most readily available in their minds when completing a questionnaire.

Finally, future vote validation studies should continue to go beyond identifying the demographic factors related to a greater likelihood to overreport turnout and focus on the normative motivations that make them provide a socially desirable response. This could include examining variation in attachments to the democratic norm of voting, the view that voting is a civic duty, and differences in social group consciousness. Understanding the social and psychological pressures that result in turnout overreports could help survey methodologists generate more effective ways to mitigate this from of response bias, and estimate turnout more accurately with survey data.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. For details on the matching process employed by Catalist LLC in partnership with the CCES refer to Ansolabehere and Hersh (2010), and Ansolabehere and Hersh (2012).
2. Analysis using a variety of trimming and data transformation techniques, including windsorizing, for the dependent variable are presented in the Supplemental Index. Results hold for the relationship between response latencies and overreporting in each new model specification.
3. Please note that windsorizing is not applied to the dependent variable in the main analysis because unlike the baseline timing which is the average timing of 20 different response latencies this method would create a high frequency of observations at the tail of the distribution of response latencies for the self-reported turnout question that could bias analysis.

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