Losing Control (of the Party): Conjectural bias in survey experiments

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Abstract

Researchers often operationalize “control” conditions in survey experiments by omitting treatment labels in vignettes. With political party labels, we show that holding a highly salient label constant by excluding it from experimental stimuli results in a robust bias. This conjectural bias, colors evaluations because partisans actively infer the party of the vignette’s subject through an interaction between the content of the stimuli and the respondent’s own party identity. We demonstrate this effect in three separate experiments, using both a positive description of a candidate (prompting respondents to rate the target as copartisan), and a negative description of a candidate (prompting respondents to assume the candidate is from the other party). The only certain mechanism for eliminating this bias is abandoning no-label conditions, and we argue that scholars consider doing so whenever possible. Otherwise, control checks can serve as valuable tools to ensure respondents make no unwanted inferences regarding omitted information.

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Introduction

Facilitated by greater access to survey platforms, researchers have increasingly turned to survey experimental paradigms to examine voter decision-making (Druckman et al., 2011; Mutz, 2011). These efforts frequently involve vignettes or other stimuli that directly manipulate information about real or hypothetical political actors. Despite the many advantages of survey experimentation for purging endogeneity inherent in observational data, the enterprise is not without its challenges. While much attention has been paid to external validity concerns of in survey experimental research, we highlight a new design challenge to internal validity. Conjectural bias involves respondents systematically going beyond the intentionally incomplete information presented to them under a “control” condition and imputing precisely the characteristics researchers seek to manipulate through their stimuli. In certain circumstances, this loss of experimental control can yield problematic, and largely predictable, biases. This can occur when a respondent’s own group identity makes her more likely to assume that positively valenced descriptions are of ingroup members and negatively valence descriptions refer to members of the outgroup.

We demonstrate and explore this phenomenon through the case of party identification and partisan labels in the United States. Political party shapes political cognition through at least two theoretically distinct pathways: effects of identity, or one’s affiliation with a party, and effects of stereotypes, or the role of a stable party image. While the role of party images and stereotypes is important, party’s role as a perceptual screen and social identity colors the political world for partisans. These dual effects, combined with the highly salient nature of party in American politics, creates just the sort of environment in which conjectural bias can seriously confound efforts to operationalize experimental controls. Because party labels are ubiquitous and powerful, many researchers have sought to minimize or circumvent the effects of party for the purpose of studying party cues (and other topics). This is often, done by omitting party from stimuli to generate a “control” condition (or omitting party from all experimental conditions in studies that manipulate other variables). However, the same ubiquity and significance that motivates researchers to manipulate or exclude party labels, drives respondents to impute them when they are conspicuously absent.
from experimental stimuli.

This pronounced bias that can result is relevant to scholars producing or consuming work on the experimental effects of party labels, and more broadly, studies of any political subject using vignettes but not specifying political party. Furthermore, while we focus on the partisan dimension here, conjectural bias likely represents a threat to inference in other areas of study (race, religion, ethnic group, gender, etc.) where conspicuously absent labels and respondent identity might interact. The only certain mechanism for eliminating this bias is abandoning no-label conditions, and we suggest that scholars consider doing so whenever possible. However, we also suggest best practices for the design of studies and presentation of results to minimize the effects of conjectural bias when a no-label condition is deemed necessary. In the next section, we highlight a variety of works susceptible to conjectural bias and detail its effects, followed by data from three separate studies that empirically demonstrate both the presence of conjectural bias and its problematic consequences.

**Omission Control?**

Survey experimental work on the topic of political candidate evaluation has generally attempted to isolate one or two dimensions of candidates’ policy, personality, performance, or demographic characteristics, while controlling for all other attributes, including party of the candidate. McGraw (2011) describes three general ways of doing this:

“A third important distinction is how the partisan affiliation of the candidate is handled in the experimental design. Three possibilities exist. The first is to vary the partisan affiliation of the stimulus candidate so that partisanship becomes an independent variable that is fully crossed with other manipulated variables. The second approach is to make explicit the partisanship of the target candidate and hold it constant. Finally, in some studies, the partisan affiliation of the candidate is left out altogether.” (McGraw, 2011, p. 189)

McGraw herself notes a very common criticism of both the second and third design options: “In short, when researchers do not manipulate partisan affiliation, they risk failing to detect contingency effects or overstating the influence of other factors.” (McGraw, 2011, p. 190) We share this

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1Citations in the original text removed for brevity.
concern, as well as others raised in the literature. Our focus here, however, is to note two novel problems with the third design option, both manifesting from respondents attempting to guess the party label of a candidate when the label is not provided.

The practice of omitting party in descriptions of candidates is rather widespread in the literature. A systematic search finds at least 28 articles published in *American Political Science Review, American Journal of Political Science, The Journal of Politics, Political Behavior,* and *Political Psychology* in the last decade alone.\(^2\) Over a longer timeframe, one can find numerous examples in disparate literatures – on gender (e.g. [Kahn, 1992](#)), race (e.g. [Sigelman et al., 1995](#)), religion (e.g. [Campbell et al., 2011](#)), appearance (e.g. [Riggle et al., 1992](#)), scandal (e.g. [Miller, 2010](#)), policy positions (e.g. [Tomz and Van Houweling, 2009](#)), and others in candidate evaluation (e.g. [McGraw et al., 2003](#)).

Why is this omission of party labels potentially problematic? Person perception, and more specifically politician perception, is dominated by a drive to categorize people.\(^3\) Certain types can be more or less salient depending on the domain in which the target person is judged. In the political case, party is an important type. When a party label is omitted in a vignette or informational treatment (real or fictional), respondents may seek to fill in the party label based on other information. The information in a vignette may lead to a party guess in two ways. First, some experimental treatments contain information stereotypical of one party or another, such as an issue position or priority (e.g. [Egan, 2013](#)) or a personality trait (e.g. [Hayes, 2005](#)). This is extremely problematic, as it confounds the effect of party with any information that is stereotypically partisan. Given the number of issues, demographic characteristics, and personality traits with well-documented associations with the Democratic and Republican parties, many literatures are affected (Authors, 2016). Second, simpler partisan identity-related processes may lead mere valence of information

\(^2\)This count comes from a systematic search for any articles that contained the word “experiment” in the abstract from 2008-2017. Articles were included if they contained experimental research presenting a candidate or policy in which a party label was conspicuously absent.

\(^3\)See, for example, [Anderson and Sedikides, 1991](#), on approaches to person perception.
in the vignette to signal partisanship differentially based on respondents’ partisan identification. That is, because most voters identify with one of the two major political parties, respondents seek to categorize positively valenced politicians as copartisans and negatively valenced politicians as members of the out-party. Therefore, we would expect generally positive experimental vignettes to create copartisan biases, while negative vignettes would be rated as the opposite party of the respondent.

We term the stereotypic process arising from partisan identity **conjectural bias**. This process is problematic because it does more than just create unmeasured systematic variance in the overall evaluations of the candidate, but it requires that the partisanship of the sample be taken into account, as this distribution can bias evaluations. Additionally, theoretical claims from these studies regarding the absence of party effects are unfounded; party is not **absent**, it is **inferred**.

The Neyman-Rubin model and the potential outcomes framework (Splawa-Neyman et al., 1990) highlights the logic undergirding modern experimental work. That model presents causal inference as a missing data problem. Specifically, we are unable to observe the same unit (respondent) at the same point in time under both treatment and control regimes. Experimental designs overcome this by exploiting the features of random assignment in large samples to generate comparability across treatment and control observations in expectation. The potential outcomes framework also implies the critical importance of precisely defining both the treatment in an experiment and that treatment’s relevant counterfactual (often operationalized as a control condition). In the case of political party, omission amounts to misspecification of the appropriate counterfactual. When considered this way, it becomes clear that studies can only realistically examine the effect of a candidate being a Democrat as opposed to a Republican. The often-assumed baseline condition of “no party” is not meaningful, as it varies across respondents. In other words, the realistic counterfactual for one party label is the other party label, not the absence of one.

**Evidence: Assuming the Best & Worst**

To showcase the potential effects of conjectural bias when the valence of the experimental vignette is positive, we examine data collected by Authors (2017) in their examination of trait
ownership. A generally positive vignette describing a candidate was presented to respondents, with a 2x3 between-subjects experimental design manipulating the partisan and trait content of the vignette. With the first manipulation, the candidate was described as either a Democrat, a Republican, or was given no partisan affiliation. Respondents were then asked to rate the candidate on seven positive trait words.

Figure 1a displays the raw ratings across the assessed personality traits, by respondent and candidate partisanship, the latter of which was experimentally manipulated. First, we can see that respondents ascribed positive traits to the candidate regardless of their partisan relation, confirming our expectations that the candidate, on average, would be viewed in a positive manner. To highlight the problem of conjectural bias, Figure 1b shows the average rating across all traits by respondent and candidate party. As we see in both Figure 1b across all traits and for nearly every individual trait in Figure 1a, Republican respondents rate the candidate with no listed partisanship much more similarly to the explicitly Republican candidate. While the condition with no partisanship listed for the candidate is much closer to the midpoint for Democratic respondents in the average across all traits, Figure 1a shows it never falls closer to the Republican candidate in any of the seven individual trait ratings. To demonstrate the effect of conjectural bias more cleanly, Figure 1c displays the average trait ratings of the candidate solely by the experimentally-manipulated partisanship of the candidate. If one examined this figure naively, one might conclude that respondents rated the candidate with no party label as more likely to possess all seven positive traits. However, from the underlying patterns, this is purely an artifact of respondents assuming that candidates in the “no party” condition were copartisan, thus resulting in a higher rating for the candidate.

If respondents assume that a generally positive description about a candidate means that candidate is copartisan, do they do the reverse when presented with negative information about a candidate? To assess this, respondents were asked to read a fictional news report and answer a series of 7-point Agree/Disagree questions about the report and the Senator described in it. The

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4 Fielded in the 2012 Cooperative Congressional Election Study. See Online Appendix.
5 Fielded in the 2010 Cooperative Congressional Election Study. See Online Appendix.
fictional news reports were identical except that the politician was described as either a “Democratic Senator,” “Republican Senator,” or simply “Senator.” Figure 1d shows the overall ratings of the candidate by respondent partisanship and the party label of the candidate. As with the positive news story in the first experiment, the “control” condition in which no party label is given to candidate, the rating is far closer to one party label condition than the other. However, in this case, we see Democratic respondents rating this condition similarly to the Republican candidate, while Republican respondents rate it similarly to the Democratic candidate.

**Evidence: Party Guessed?**

To cleanly establish the role of conjectural bias, we fielded an experiment in which respondents were either shown a positive or negative news story about a fictional candidate. Following the article excerpt, respondents were asked two questions: whether the Senator deserved credit for [this or admitting this], and second, whether they would guess the Senator was more likely a Democrat or a Republican.

Figure 1e shows the source of conjectural bias directly, with partisan respondents always more likely to guess the positive story was about a copartisan candidate while the negative story was about a candidate of the other party. If we condition on the guessed party of the candidate, we see results consistent with the previous two studies regarding candidate ratings. Figure 1f displays ratings of the credit deserved by the candidate for both positive and negative news stories, conditioned by respondent partisanship and the presumed partisanship of the candidate. Like the previous studies where partisanship was explicitly manipulated, we see Democratic and Republican respondents rate the candidate presumed to be copartisan more positively.

**Contending with Conjectural Bias**

Scholars could address this bias by narrowly defining the treatment as the party label in the experimental stimuli. One could then ignore conjectural bias as a source of heterogeneity. But, such

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6Fielded on an SSI Sample (N = 1609) in 2014. The experimental design was between-subjects, with respondents only seeing one news story. See Online Appendix.
an assertion is likely disingenuous in most cases. External validity likely relies on an interpretation of a party label manipulation as something more than just the presence or absence of a word or phrase in an experimental vignette, but an extrapolation to some real-world analogue.

First, experimentalists should simply not intentionally omit party or other highly salient information as a way of controlling for it. The only certain mechanism for eliminating this bias is abandoning no-label conditions, both as controls or across experimental conditions in studies where party is likely relevant and conspicuous in its omission, but perhaps not the focus of the study. Even if the party of a candidate or entity is not of primary interest, one can hold the party constant or tailor it so respondents always encounter copartisan (or opposite party) candidates.

Second, if one does omit information that may be relevant to respondent decisions, *control checks* should be implemented. In her canonical work on survey experiments, Mutz (2011) describes at length the importance of manipulation checks when designing experimental treatments. Specifically, one should measure post-outcome whether the treatment was perceived in the manner the researcher expects. Analogous to these, control checks should ask respondents to “guess” or categorize the experimental target on a variety of pieces of omitted information. If these checks show no differential guessing on the omitted information (overall and heterogeneous based on respondent characteristics), it provides some reassurance that the results are not due to the omitted information. Finally, when analyzing data from studies in which party label omission is used for a control condition, specify estimands comparing party conditions with each other, not with control quantities. In particular, report results under each experimental condition, not effects “as compared with control.”

**Discussion**

Researchers often operationalize “control” conditions by omitting treatment labels in survey experimental vignettes. Using the motivating example of party labels (which are ubiquitous in real-world political discourse), we show that holding such highly relevant and salient labels constant by simply excluding them from experimental stimuli results in a robust bias. In the case of political party, this ‘conjectural bias,’ colors evaluations because partisans actively infer the party of the
vignette’s subject through an interaction between the content of the stimuli and the respondent’s own party identity. The root cause of this phenomenon is a poorly defined counterfactual. That is, the reason respondents are engaging in this conjecture is because the appropriate counterfactual for one party label is the other party label, not the absence of one. This pronounced bias we discuss here is clearly relevant to scholars producing or consuming work on the experimental effects of party labels, and more broadly, studies of any political subject using vignettes but not specifying political party. Furthermore, while we focus on the partisan dimension here, conjectural bias likely represents a threat to inference in other areas of study (race, religion, ethnic group, gender, etc.) where conspicuously absent labels and respondent identity might interact.

References


Kahn, K. F. (1992). Does being male help? an investigation of the effects of candidate gender and


(a) Positive Vignette: Trait ratings, by candidate and respondent partisanship

(b) Positive Vignette: Trait average, by candidate and respondent partisanship

(c) Positive Vignette: Trait average, by candidate partisanship

(d) Negative Vignette: Average rating, by candidate and respondent partisanship

(e) Party guessed, by vignette positivity and respondent partisanship

(f) Ratings of “credit deserved” by party guess and respondent partisanship

Figure 1: Experimental Evidence of Conjectural Bias

NOTE: Partisan leaners included with partisans.
Online Appendix

A Positive Vignette, CCES 2012

Please read the following website description of a [Democratic OR Republican OR (no text)] candidate for Congress, whose name we have removed. After you read it, we will ask for your initial impressions of the candidate. It is important that you read it carefully. This candidate had a decorated career in the United States Navy [ . OR , rising to the rank of Captain. ] They have served on the board of a number of nonprofit organizations [ . OR and charities. ] The candidate was most recently the CEO of one of the state’s largest companies, [ leading OR overseeing ] a workforce of several thousand and a period of rapid growth for the company. [ The candidate travels frequently with members of their community to serve underprivileged and needy communities. OR The candidate is active in their church, and leads mission trips with members of their community. ] The candidate, [a Democrat, OR a Republican, OR (no text)] has previously served on the City Council, and currently serves in the State Legislature.
The 7-point Agree/Disagree statements were: “This report seems fair,” “The person who wrote this is probably biased,” “This sort of thing is important to me when deciding which candidate to support,” “The Senator deserves credit for admitting this,” “The behavior that got the Senator in trouble is typical.”
The first dependent variable was assessed with a 9-point Likert-style scale from disagree strongly to agree strongly. The second dependent variable was assessed with a five-point scale in which respondents were asked to choose from: Much more likely to be a Democrat, Somewhat more likely to be a Democrat, Equally likely to be Democrat or Republican, Somewhat more likely to be a Republican, or Much more likely to be a Republican.