Campaign Issue Appeals: Activation and Persuasion in U.S. Presidential Elections

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September 2022

Abstract

This study challenges the claim that polarization in the United States has diminished the importance of issue voting by putting forward the communication of candidates on issues as a mechanism for campaign effects. To do so, it uses a combination of survey and Twitter data on the issue statements made by candidates during the 2012 and 2016 presidential electoral campaigns. The findings show that voters respond to policy information that is congruent with their preferences from both the congenial candidate and the candidate they are predisposed against. While these effects are small in the aggregate, they can determine elections.

1 Introduction

In the United States, forecasting models based on structural factors like the economy and party identification often predict the winner months before the campaign has even started. The predictability of electoral campaigns has fed the view that campaigns don't matter. The claim is that, at best, they activate voters' predispositions as shaped by these long-term forces also called "fundamentals". (J. E. Campbell, 2008; Gelman & King, 1993; Holbrook, 1996; Lazarsfeld et al., 1948). This view was somewhat reinforced by the growing ideological and affective polarization of the party system and the resulting sorting out of voters into partisan camps over the last few decades, which leaves little wiggle room for campaigns to change voters' minds (Abramowitz, 2010; Baldassarri & Gelman, 2008; Iyengar et al., 2019; Iyengar et al., 2012; Iyengar & Westwood, 2015; Kalla & Broockman, 2018; Levendusky, 2009). The counter-argument has been that partisans are on a path to extinction, evidenced by the growing share of Independents. However, some claim that Independents are in fact "undercover partisans". They consistently vote for the same party (Smidt, 2017) and share the same opinions as their partisan counterparts (Keith, 1992; Klar & Krupnikov, 2016). In sum, since partisans and Independents use the party affiliation of the candidates to decide who to vote for, which are known well in advance of the campaign, it should be harder for electoral candidates to move voters during campaigns. Yet, more recently, scholars have accumulated evidence showing that

campaigns often move election outcomes away from the forecasts, sometimes enough to tip the balance. (Erikson & Wlezien, 2012; Johnston & Brady, 2006; Johnston et al., 2004; Johnston & Lachance, 2022; Vavreck, 2009).

This study investigates candidates' strategic communication on policy issues as a mechanism for campaign effects. The main research questions are: does congruence between the issue positions candidates take during the campaign and the voter's influence their vote? How is this relationship affected by the voter's predispositions toward the candidates? Past scholarship has provided valuable evidence that campaigns foster issue voting by allowing voters to learn where candidates stand on important issues, or by priming them to base their decision on these issues. This produces two main outcomes: the campaign convinces some undecided voters to vote for their favoured candidate, and it persuades other voters to change their minds and defect from their favoured candidate.

Yet, one question remains unanswered: how do voters' predispositions moderate the reception and acceptance of campaign information? There are grounds to think that voters respond differently to equally favourable issue appeals depending on who makes the offer, especially in a highly polarized context where voters have grown more hostile toward the uncongenial party. In a similar line of reasoning, voters who feel more strongly toward a party should be less responsive to campaign information. These considerations inform the "partisan intoxication" (Fowler, 2020) perspective on voting behaviour, which conceptualizes party identification as a "perceptual screen" (A. Campbell, 1960) that conditions voters' perceptions and attitudes on policy, among other political objects (Achen & Bartels, 2016; Bartels, 2002). There is substantial evidence of how biased information-processing driven by partisan or ideological predispositions affects policy attitudes. Notably, people tend to self-select into exposure to information that confirms their prior beliefs and reject information that contradicts them (Achen & Bartels, 2016; Bartels, 2002; Iyengar & Hahn, 2009; Lazarsfeld et al., 1948; Merkley, 2021; Stroud, 2010). However, there is no systematic account of how the effect of policy information on *vote choice* is moderated by predispositions toward candidates.

More specifically, the objective of this study is to assess the weight of new information in the vote decision once voters' predispositions—which integrate prior information, notably on fundamentals—are taken into account. To do so, I use a measurement scheme that respects the chronological order of the variables of interest in the causal chain linking a voter's issue positions, their exposure to the candidates' issue positions, and their vote decision. This measurement scheme enables the identification of a causal effect of issue congruence on vote choice that is not biased upward by voters changing their issue positions to follow their favoured candidate on issues (Lenz, 2009, 2012).

Other methodological shortcomings in existing studies limit the scope of their conclusions. First, studies on persuasion exclude Independents, and by the same token ignore a huge swath of the American electorate (40%). Second, studies on priming and persuasion do not always use campaign variables, and when they do, they do not leverage variation in issue emphasis *within* campaigns, which does not allow them to capture campaign effects with precision nor make strong causal claims about their causal effect on vote choice.

Using original Twitter data on the policy statements made by U.S. presidential candidates during the 2012 and 2016 electoral campaigns, I start by showing that the policy information delivered by the campaign does influence voting behaviour. My findings challenge the "partisan intoxication" thesis by showing that voters respond to policy information that is congruent with their preferences from both the favoured candidate and the candidate they are predisposed against. They also demonstrate that Independents are not just "undercover partisans", they are much more responsive to campaign appeals than their partisans counterparts. Then, I assess the significance of these effects in terms of predicting the vote at the aggregate level. Given the high baseline probability of voting for the favoured candidate, issue voting only plays a limited role in explaining electoral outcomes, yet one that can make a difference. In sum, my findings show that campaigns matter and that policy information still plays an important democratic function, even in a highly polarized system like the current one in the United States.

2 Literature, Theory & Hypotheses

The claim that campaigns don't matter has been fueled mainly by evidence based on aggregate data showing that vote intentions usually track the target set by long-term fundamentals like party identification and the economy. However, by how much they miss the target is of equal interest, and can sometimes determine the winner of the election. Some have argued that campaigns can induce shifts in the long-term equilibrium by bringing new considerations to the forefront that produce durable impacts (Erikson & Wlezien, 2012; Johnston & Lachance, 2022). Johnston et al. (2004), Vavreck (2009) have shown that strategic issue emphasis during the campaign matters. Candidates who are favoured by fundamentals like the economy must emphasize them during the campaign in order for their effect to be realized; they are not a given. Other "insurgent" candidates can disrupt the equilibrium by pushing new issues on the agenda. Vavreck also shows that campaigns have effects beyond swing voters, like Independents, and can even move partisans (2009, p.150). To summarize, campaign dynamics can produce three outcomes: the reinforcement of existing vote decisions, the activation of long-term predispositions (voting for a candidate one is predisposed toward) among undecided voters, and conversion or persuasion (voting for a candidate one was originally predisposed against) (Finkel, 1993; Lazarsfeld et al., 1948).

If campaigns influence voters beyond just confirming a decision that has already been made, the stands that candidate take on important issues should influence their vote decision. In fact, the strategic communication of candidates on issues has been considered an important mechanism of campaign effects since the beginning (Berelson et al., 1954; Key & Cummings, 1966). We can can expect exposure to policy statements that are congruent with the voter's to increase the likelihood of voting for the candidate, and incongruent policy statements to decrease the likelihood of voting for the candidate. Congruent policy statements are statements that indicate a position that is on the same side of the issue than the voter's (e.g. pro/anti climate action, pro/anti single-payer healthcare, etc.). Because voters' movement between candidates may cancel out in the aggregate, individual-level analysis is necessary to assess campaign effects.

There are a multiple mechanisms through which campaign issue statements can influence the vote decision at the individual level: learning, priming and persuasion (Alvarez, 1997; Druckman, 2004; Fournier et al., 2019; Highton, 2006; Iyengar & Kinder, 1987; Jenkins, 2002, 2006; Johnston, 1992; Johnston et al., 2004; Nadeau et al., 2008; Niemi & Weisberg, 1993; Peterson, 2015; Vavreck, 2009). Learning occurs when voters reduce their uncertainty about where the candidates stand on issue. In contrast, priming requires that voters know where the candidates stand on issues. What is key is that the weight they put on certain issues in their vote decision increases as a result of the increased salience of these issues during the campaign. Voters then choose the candidate that has policy positions that are congruent with theirs on the primed issues. While this literature offers valuable evidence of campaign effects at the individual level, there has been concerns about the direction of the causal relationship between the voter's policy preferences and their vote decision. Lenz (2009; 2012) argues that voters mostly follow their party on issues. That means that they change their policy positions after learning where their party stands to align them with their party's, which is supported by further evidence from experimental studies (Druckman et al., 2013) and panel studies (Tesler, 2015). Because most studies on priming measure the voter's policy positions and their vote choice at the same time—after the campaign in observational studies, or after the stimulus in experimental studies—priming and following are observationally equivalent. Yet, Matthew's (2019) findings of priming effects among Independents, a group that is less likely to follow a party, suggest that strategic issue emphasis during campaigns can move voters.

Finally, persuasion in the literature on campaign effects usually refers to *conversion*, or voters changing their vote intention during the campaign as a result of exposure to campaign information (either because of learning or priming). There is an extensive literature on the persuasion effects of ads and campaign events on vote choice and electoral outcomes that I do not cover here.[1] In *The Persuadable Voter* (2014), Hillygus and Shields ask: which voters are persuadable, and can they in fact be persuaded by issue appeals? Their operationalization of persuasion is restricted to partisans deserting their own party to vote for another party. They argue that persuadable voters are "cross-pressured" voters who disagree with their party on some issues and agree with the opposing party on these same issues. In an observational study of the 2004 Presidential election, they find that a substantial share—two thirds—of voters are cross-pressured on at least one issue. They also find that more than one third of voters who were cross-pressured on at least 60% of the issues defected to the out-party. However, by excluding a large swath of voters, those who don't identify with any party (Independents), Hillygus and Shields limit the scope of their findings. Moreover, they assume that the issues included in the party platforms are also the issues of the campaign; and that the parties' issue positions are constant in direction and emphasis. While candidates usually stick to the issue positions included in their platform, they are likely to adjust the degree of emphasis they put on certain issues. In other words, their study does not account for strategic changes in the candidate's communication during the campaign.

Why does issue emphasis matter? The emphasis candidates put on issues can influence voter decision-making in multiple ways. First, it conditions the likelihood that a voter will be

[1] One reason is that these studies often do not disentangle activation from persuasion effects. The main reason, however, is that these studies do not analyze issue voting as such, as the effect of ads and campaign events can come from a range of stimuli, including candidates' image, incumbent performance, and attacks on opponents.

exposed to the candidate's issue position and learn where they stand. The more emphasis the candidate puts on an issue in its campaign communications, the more likely voters will receive the message. Second, the degree of emphasis a candidate puts on an issue signals how strongly they commit to their stand. The more a candidate emphasizes an issue during the campaign, the more weight they will put on the issue in their policy agenda once in office. This logic stems from a conception of elections as devices for selecting policy mandates against which voters can hold elected officials accountable. In other words, candidates only emphasize issues on which they know they can deliver by fear of being punished in the next election. Third, under a symbolic view of politics, greater emphasis should generate a higher degree of emotional stimulation (Rabinowitz & MacDonald, 1989). By emphasizing an issue, a candidate shows how much they care about an issue. In turn, voters elect candidates that feel as strongly about an issue as they do. Finally, issue emphasis influences the vote decision through priming. Note also that the concept of issue emphasis underpins saliency theory (Baumann et al., 2021; Budge, 2015) and issue ownership theory (Meguid, 2008), which focus on the supply side, i.e. party competition.

Taken together, these considerations lead to the first hypothesis:

> H1. The likelihood of voting for a candidate increases as their emphasis on congruent issues increases.

Yet, this logic omits an important step in voter decision-making: information processing. It assumes that not only voters have received the information, but that they have also accepted it, i.e. integrated it in their attitudes (Zaller, 1992). How can we expect voters to react to information from a candidate they are predisposed against? Zaller's (1992) theory posits that the acceptance of information is conditioned by partisan resistance and "inertial" resistance (Zaller, 1992, chap. 7). In the context of policy information, partisan resistance operates through voters using the party cue to infer that a message from a disliked party is incongruent with their policy preferences. This assumption, that Fowler (2020) calls "partisan intoxication", originates from a long tradition in research on voting behaviour that foregrounds the role of party identification (Achen & Bartels, 2016; Bartels, 2002; A. Campbell, 1960). Inertial resistance occurs when voters resist appeals from a candidate because they have internalized opposing considerations linked to the candidate they prefer, possibly related to fundamentals like the state of the economy. Whichever mechanism is at play, the theory implies that the effects of issue congruence on the vote should be weaker when the information comes from a disfavoured candidate (whom the voter is predisposed against) than from the favoured candidate (whom the voter is predisposed toward).

Zaller's (RAS) model—as well as earlier explorations on the topic (Lazarsfeld et al., 1948) and foundational work in psychology[2]—has spurred a whole body of literature in political science around *directional motivation*, a theoretical framework that expands on the implications of partisan and inertial resistance for the reception and acceptance of information. Although this literature is primarily concerned about how individuals form policy preferences, it can shed light on how voters use information to decide who to vote for. First, it has provided

[2]See Kunda (1990) for a comprehensive literature review.

evidence that individuals self-select into exposure to certain information that validate their prior beliefs (Iyengar & Hahn, 2009; Merkley, 2021; Stroud, 2010). When applied to voter decision-making, according to the "anticipated agreement" thesis (Iyengar et al., 2008), voters will self-select into exposure to information from their preferred candidate because they expect to agree with them on policy issues. Second, individuals also engage in *motivated reasoning* and reject information that challenges their prior beliefs once they are exposed to it (Lodge & Taber, 2013; Merkley, 2021; Taber & Lodge, 2006). Motivated reasoning is not limited to partisans, but also Independents who lean toward a party, these "undercover partisans" (Hawkins & Nosek, 2012). In response, some have argued that the same outcome could be explained by partisans seeking accurate information, but distrusting uncongenial sources (Druckman & McGrath, 2019; Tappin et al., 2020) or behaving as Bayesians with strong informational priors about the parties, which would lead them to resist new information (Broockman & Kalla, 2020; Bullock, 2009; Gerber & Green, 1999).

In sum, the implications of this literature for voter information processing during the campaign are: 1) voters are less likely to be exposed to messages from candidates they are predisposed against than from their favoured candidate; 2) if they are exposed to issue statements that are congruent with their own issue position from a candidate they are predisposed against, they are likely to reject the information. Therefore, I expect the effect of policy information on vote choice to be moderated by predispositions toward the candidates. More specifically, I expect that policy information from the *disfavoured* candidate that is congruent with the voter's policy positions will have a weaker effect on vote choice than congruent information from the *favoured* candidate.

> H2. The magnitude of the effect of congruent issue emphasis on vote choice is smaller for the disfavoured candidate than for the favoured candidate.

Moreover, as predispositions get stronger, the effects of campaign information from both the favoured and the disfavoured candidate should weaken. This expectation can be understood in terms of ceiling effects. As predispositions get stronger, the baseline probability of voting for the favoured candidate increases, which leaves little room for campaign information to have an effect on the vote.

> H3. The magnitude of the effect of congruent issue emphasis on vote choice decreases as the intensity of predispositions toward the candidates increases.

Taken together, the last two hypotheses suggest a certain order in the magnitude of the effects of issue congruence depending on the candidate and the intensity of the voter's predispositions. The latter should be the most influential, as voters who have strong predispositions are unlikely to respond to information from any candidate in the first place. Then, the source of information should determine the magnitude of the effect within each category of predisposition intensity: the effect of issue congruence should be stronger for the favoured candidate than for the disfavoured candidate. Table 1 illustrates the theorized order of the effects for different combinations of the predisposition intensity and candidate variables. A rank of 1

refers to the strongest effect, and a rank of 4, to the weakest. To test this, I will include interactions between the candidate status (favoured or disfavoured) and predisposition intensity in my regression models.

Table 1: Rank of Congruence Effect Magnitude by Predisposition Intensity and Candidate

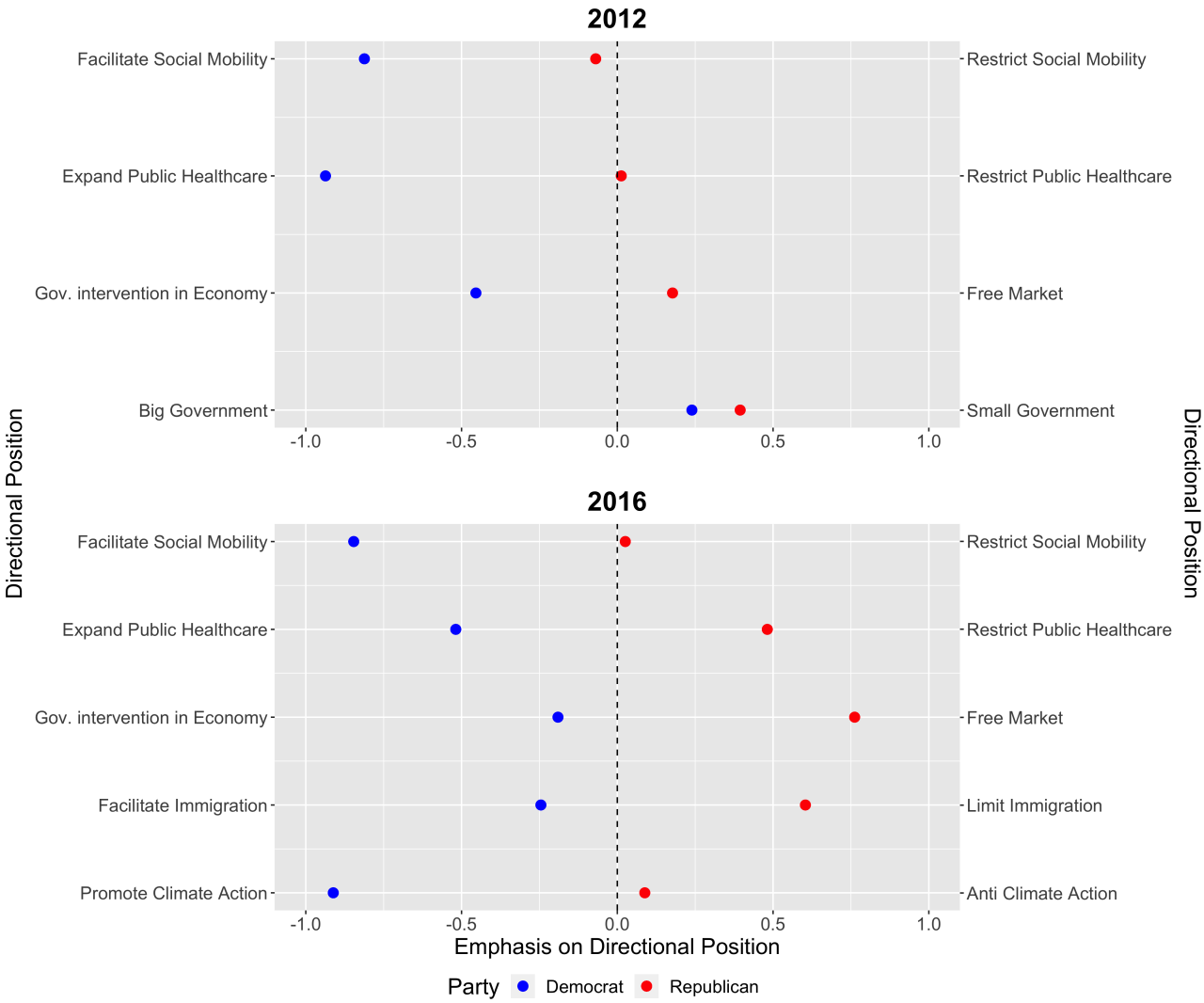
	Candidate	
Predisposition intensity	Favoured	Disfavoured
Weak	1	2
Strong	3	4

3 The Cases: the 2012 and 2016 U.S. Presidential Elections

In this section, I map the positions of the presidential candidates in the 2012 and 2016 elections on the major issues of the campaigns on an emphasis scale. As I explain in Section 4, I use Twitter as a proxy for the general media environment. I selected the 2012 and 2016 U.S. presidential elections because Twitter was not used by electoral candidates to the same extent in 2008 (and Twitter did not exist in previous elections). Each issue statement was assigned a score of -1 or 1 depending on which side of the issue it related to. The scale was constructed on an issue basis; that is, the scores reflect the candidate's total score averaged over all the statements on an issue and across candidates. The direction (negative or positive) reflects the side of the issue on which the candidate stands. To stand at one extreme of the scale, a candidate would have to utter *all* statements on a given issue, and these statements would have to be on the same side. A score of zero indicates either silence, or an equal number of statements on each side of the issue, in which case they would cancel out.

Figure 1 shows a slightly different set of issues for the 2012 and 2016 elections. In 2012, the deficit left by Obama's first term Recovery Act in the wake of the 2008 recession was a major point of contention, with both candidates advocating a reduction in spending, although to a different extent. It was not the case in 2016, where immigration and climate change emerged as major themes of the campaign. Another difference between the two elections is healthcare. The Democratic candidate nearly monopolized the discourse on healthcare in 2012. In 2012, Obama sought a mandate to build on the Affordable Care Act he had passed in his first term as president, while Romney focused his campaign on the economy and the deficit. This is in contrast with 2016, where repealing Obamacare was a central part of Trump's campaign, with Clinton equally defending it. Finally, note that Trump had a much more imposing digital media presence in 2016 than Romney in 2012 (Pew Research Center, 2012), which is manifest in the large gap between their shares of policy statements on Twitter. Moreover, Romney spent most of his campaign arguing that Obama had performed poorly on the economy and had not created enough jobs (Sides & Vavreck, 2013), which is not included in my data since it is a valence issue and not a positional one.

Figure 1: Intensity of the Directional Positions of Candidates on Major Issues



In both campaigns, social mobility is a Democratic issue, with the Republican candidate ignoring it almost completely. The term "social mobility" was chosen instead of "inequality" because the statements of the candidates don't always advocate closing the gap between the rich and the poor, for instance by redistributing wealth. Oftentimes, they only hint at improving the economic situation of the middle class or addressing poverty. In 2012, Romney made a few appeals to the middle class and voiced some concern for poverty, which was in a way inevitable considering that the United States was still navigating the severe economic consequences of the 2008 recession. This was also part of a damage-control strategy after the release of a video showing him dismissing the "47%" of Americans who are in lower-income categories and exempt from taxes. Yet, these calls were often doubled by a strong commitment against income redistribution.

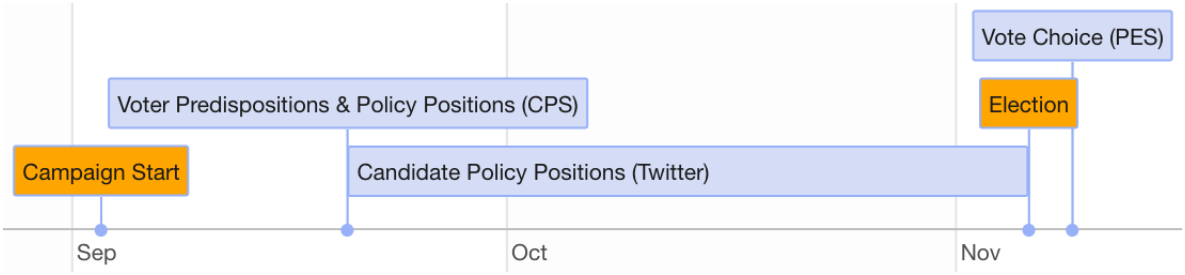
4 Methodology

4.1 Data

To measure the voter variables, I use survey data from the American National Election Studies (ANES). For predispositions, I use feeling thermometer data from the campaign-period survey (CPS). To measure the outcome variable, reported vote choice, I use the ANES post-election survey (PES). To measure policy information, I use tweets from the major party candidates. The policy issues for each election are the same as those presented in Section 3.

The causal logic in my theory requires that voter predispositions and policy information, as causes, precede the outcome, the vote. To correctly identify the effect of (new) information on the vote, only the candidates' policy statements made after voter predispositions were measured should be considered, as predispositions integrate present and past information. To be clear, I assume that knowledge about fundamentals, like the state of the economy, and the issue positions of the candidates that was acquired before the voter was interviewed during the campaign is integrated in their predispositions toward the candidates. The voter's policy positions should also be measured before the candidates' policy statements and vote choice to avoid problems related to endogeneity (as voters may adjust their policy positions to match those of the candidate they prefer). Thus to ensure causal identification, I had to measure in a chronological order voters' predispositions and policy positions, followed by policy information from the candidates, and finally vote choice. Each survey respondent was interviewed once during the campaign at some point between the beginning of September and the beginning on November. Issue congruence is measured for each respondent, using only the candidates' policy statements that were published on Twitter after the interview. Hence the time period covered by the candidates' tweets varies across respondents, depending on the day of their interview. Figure 2 shows the measurement timeline associated with a hypothetical voter who was interviewed in September.

Figure 2: Timeline of Variable Measurement



Note that I use the policy information disseminated by candidates on Twitter during the campaign as a proxy for the information in the general media environment. These tweets have the advantage of being unbiased by second-hand reports. Campaign statements are also more representative of the parties' policy priorities than policy manifestos, which have a broader scope and whose static nature cannot reflect strategic dynamics during the campaign. Twitter is also a good proxy for the information available to the voters in the general media environment, as conventional media often report and comment on campaign tweets (Parmelee, 2013). Electoral candidates also use Twitter as a tool to communicate their policy priorities to the media, in a similar fashion to a press release (Casero-Ripollés et al., 2016; De Sio et al., 2018; Kreiss, 2016; Stier et al., 2018). In fact, the issues covered in social media and conventional media are correlated, as both react to the events of the day and feed from each other (Casero-Ripollés et al., 2016; Conway et al., 2015; Jungherr, 2014, 2015; Neuman et al., 2014; Posegga & Jungherr, 2019). In short, Twitter is a reliable source to get the policy positions of candidates and a good proxy for the general media environment surrounding electoral campaigns. Finally, the short length of tweets, their tags, and their handles make their content easy to process when coding variables.

4.2 Variable coding

4.2.1 Dependent variable

The dependent variable is dichotomous and is coded 1 when the respondent reported voting for the favoured candidate (which can be either the Democratic or the Republican candidate, depending on the voter's predispositions measured as described below). Since the objective of this study is to assess the importance of campaign information relative to long-term predispositions, it makes sense to center the interpretation of the results around the candidate that voters are predisposed toward. Note that respondents who voted for candidates other than the ones from the major parties are included in the analysis. Hence the regression estimates show the likelihood of voting for the favoured candidate compared to voting for any other candidate. I made this choice because of concerns about power related to the imbalance between the outcome categories, as there are many more voters who chose their favoured candidate than voters who chose other candidates. Since I am using predicted probabilities in the analysis, the results should be similar across binomial and multinomial logistic regression models. Nevertheless, I included the estimates from a multinomial logistic regression where voters

who chose the disfavoured major party candidate and those who chose another candidate are in separate categories as a robustness check in Section F of the appendix.

4.2.2 Predispositions toward Candidates

To measure predispositions toward the candidates, I created an index that combines five factors: party identification and feeling thermometers[3] for the Democratic party, the Republican party, the Democratic candidate, and the Republican candidate. By using an index, I reduce noise due to measurement error on single items. Perhaps more importantly, using a measure that includes feeling thermometers instead of relying exclusively on party identification allows me to keep Independents in my estimation sample, a group that is usually excluded in studies on campaign persuasion and motivated reasoning. Theses studies exclude a large chunk of voters (in the case of the present study, they amount to 35% of the sample) who tend to be decisive in politics because they are swing voters. Yet, Independents tend to lean toward certain parties, and thus their response to campaign information could be conditioned by their predispositions just as it is for partisans.

First, I employed multiple imputation to impute missing values on these variables using demographic variables.[4] Imputation is necessary both for the precision of the estimates, as list-wise deletion at the estimation stage would decrease power, and to avoid bias as we cannot assume that data is missing completely at random.

Then, to create the index, I used factor analysis of mixed data (FAMD) and reduced these five factors to a single dimension.[5]. I retain the first component, which explains at least 50% of the total variance and for which all the factors contribute roughly equally.[6] I created two variables based on this index: 1) a categorical variable that indicates the favoured candidate; 2) an interval variable that indicates the intensity of the predisposition toward the favoured candidate.

The categorical predisposition variable is used to code the dependent variable (vote for the favoured candidate). To assign the favoured candidate, I use the score of 0 on the index—which corresponds to the average score on each factor—as a cutoff. For instance, if the factors related to the Democratic party are positively associated with the index (and for the Republican party, there is a negative association), I assign the Democratic candidate as favoured candidate to respondents with a positive score. For the second variable, predisposition intensity, I use the absolute scores of the respondents on the index. To be clear, a score close to 0 indicates that there is only a small difference in how the respondent feels toward each candidate.

[3]Feeling thermometers are measured on a 0-100 scale, where higher scores indicate "warmer" or more positive feelings, and lower scores, "colder" or more negative feelings.

[4]I use the mice package in R. The variables used for imputation are: age, region, gender, religiosity, marital status, education, employment status, union membership, race, house ownership status, income and citizenship status.

[5]Ansolabehere et al. (2008) use a similar approach, principal factor analysis.

[6]The other components are driven by party identification and explain 15% or less of the total variance.

4.2.3 Issue Congruence

There are two congruence variables: one that measures the emphasis put by the favoured candidate on issue positions that are congruent with the voter's, and another that does the same for the disfavoured candidate. I started by assigning a directional position on each issue to each voter and each policy statement. Recall, congruent policy statements are statements that indicate a position that is on the same side of the issue as the voter. For the economy, healthcare and social mobility, the two sides are defined as pro-government and anti-government intervention. For immigration, the two sides are pro/anti-immigration. For climate change, the two sides are pro/anti-climate action. For the budget, the two sides are pro/anti austerity. For policy statements, I hand-coded the directionality of each tweet.[7] Note that tweets from the same candidate could be coded as taking different positions on the same issue.[8]

To measure the positions of the voters on these issues, I created an index of policy positions relevant to each issue that were measured by the ANES survey. To do so, I imputed missing values on theses factors with demographic variables, used either FAMD or Correspondence Analysis (CA) to create the index depending on the nature of the data, and assigned a position in a similar fashion as for the categorical predisposition variable.

Then, to measure emphasis on congruent issues, I computed the proportion of policy statements that indicate an issue position that is congruent with the voter's for each candidate (favoured and disfavoured) and across all issues. To be clear, these variables are: 1) proportion of policy statements from the *favoured* candidate that are congruent with the voter's issue positions; 2) proportion of policy statements from the *disfavoured* candidate that are congruent with the voter's issue positions. Hence a higher proportion of congruent statements also means a lower proportion of incongruent statements, and vice-versa. The formula below illustrates the coding procedure, where P is the proportion of congruent statements, C is the candidate (favoured, disfavoured) and X_{jic} is the congruence (0 or 1) of policy statement j with index $\{1...n\}$ on issue i from candidate c with index $\{1...m\}$. Note that the number of policy statements vary by issue and by candidate.

$$P_c = \frac{\sum_{i=1}^{m} \sum_{j=1}^{n} X_{jic}}{\sum_{i=1}^{m} n}$$

I provide examples of the scores my congruence variables would take for different distributions of the candidates' issue positions in Section B of the appendix.

4.3 Identification Strategy

To test the first hypothesis, I run a logistic regression of vote for the favoured candidate on congruence with the favoured candidate, congruence with the disfavoured candidate, intensity of predisposition toward the favoured candidate, and sociodemographic controls (age, region, gender, religiosity, marital status, education, employment status, union membership, race, house ownership status, income, citizenship status). To test the third hypothesis, I use a similar

[7] See Section A of the appendix for examples of statements for each issue and side.

[8] See Section D for a frequency table of issue positions by candidate.

model, but with interactions between the congruence variables and predisposition intensity.

I control for sociodemographic factors because they are correlated with the dependent variable and the independent variables of interest (the congruence variables and predisposition intensity). The correlation with congruence variables means that some sociodemographic groups are more likely to have sorted out and have higher congruence with their favoured candidate (in my data, the older and the educated), while some are more likely to be cross-pressured and have higher congruence with the candidate they are predisposed against (Hispanic and lower income). These correlations are also likely to vary across elections depending on the candidates' targeted appeals during the longer electoral cycle.

4.4 Contributions & Caveats

This study makes four methodological contributions to the literatures on campaign effects and issue voting. First, it takes into account strategic issue emphasis by candidates during campaigns with a continuous measure that is more precise than the dichotomous measure used in experimental and observational studies on priming. This should also increase the precision of persuasion effects compared to existing studies on persuasion, which typically do not take into account issue emphasis.

Second, using multiple items to construct measures of voters' issue positions diminishes random measurement error in the independent variables, which avoids downward bias toward zero in regression estimates (Ansolabehere et al., 2008).

Third, I include Independents in my analysis, a group of voters that is both empirically important (they represent 40% of the voters as measured throughout the electoral cycle in recent elections)[9] and substantially important. While some argue that Independents are like partisans in terms of ideology and policy attitudes, hence they should vote like their partisan counterparts, I argue that they could be different in terms of their response to campaign appeals. In fact, Independents have weaker predispositions (see Figure 11 in Section C.2 of the appendix), which leaves more room for campaigns to influence their vote decision. This hypothesis would be consistent with the considerable effort campaigns put at targeting Independent voters.

Fourth, my work takes Lenz' warning about the endogeneity of the voter's policy positions and their vote choice seriously by measuring the candidates' policy positions *after* measuring the voter's issue positions. This prevents an upward bias in the magnitude of the regression estimates of the effect of issue congruence on vote choice due to voters changing their issue positions to be consistent with those of the party they support. Given that electoral surveys seldom measure voter self-placement on issues in both pre-election and post-election waves, which would allow us to identify which voters change their position to follow their party on issues, the contribution that this measurement scheme represents is especially valuable.

[9] Calculated with data from Gallup.

However, there are caveats. There could still be a *downward* bias if voters changed their policy positions between the campaign interview and the post-election survey to make them congruent with the candidate they favoured at the beginning of the campaign, as Lenz' (2012) theory suggests.[10] For the favoured candidate, that would produce a downward bias toward zero in the magnitude of the positive effect of issue congruence, i.e. a conservative estimate. If (initially) incongruent statements become congruent and have a positive effect on voting for the favoured candidate that we cannot observe, decreasing the share of (initially) incongruent statements should produce less impact on the vote. There would be consequences for the disfavoured candidate as well, since the candidates usually take opposite issue positions (see Section D of the appendix). Hence more congruence with the favoured candidate often means less congruence with the disfavoured candidate. That would produce a positive bias in the negative effect of congruence with the disfavoured candidate on voting for the favoured candidate. This bias would bring the regression estimate toward zero, but it could also reverse its sign. If (initially) congruent statements with the disfavoured candidate have a negative effect on voting for the favoured candidate, as these positions become incongruent, the probability of voting for the favoured candidate would increase. Hence if congruence with the disfavoured candidate has a positive effect on voting for the favoured candidate, that would suggest a bias due to Lenz' following mechanism.

Finally, the empirical strategy in this study constitutes a hard test of the effects of campaign information on vote choice not only because of the possibility that voters following their party on issues would bias my estimates toward zero, but also because of the variable measurement scheme. By measuring voter predispositions at different points during the campaign, and thus varying across voters the amount and the time of policy information that is included in the estimation of the effect of issue congruence, I reduce the potential impact of campaign information. This is due to two reasons. First, since the novelty of information declines over time as candidates rehash prior statements, information measured later in the campaign is less likely to have a marginal effect on vote choice since it would already be integrated in the voter's predispositions. Second, voters are more likely to have made their minds as Election Day approaches. If a voter has already made a decision, they should not consider further information. In other words, all the impact of campaign information should be integrated in their predispositions. Hence the later in the campaign the voter is interviewed, the less likely subsequent campaign information is to have an effect on their vote. For these reasons, the estimates of the average effect of policy congruence on vote choice in my analysis should be conservative.

5 Results

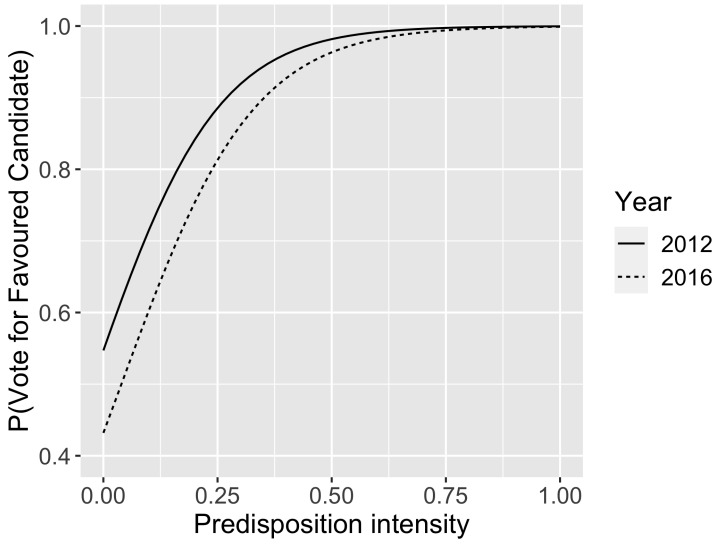
Before presenting the results of the hypothesis tests, a few considerations are in order. First, note that the univariate and multivariate distributions of the independent variables that pertain to the hypotheses show a good coverage of the data (see Section C of the appendix). Second, there is an important caveat concerning the 2012 election. In that election, the Republican candidate (Mitt Romney) did not tweet about the political issues included in this analysis after day 45 of the campaign. As a result, the estimates for 2012 are based on data for the 45 first days

[10] This cannot be verified since the questions about issue positions included in the campaign-period survey are usually not included in the post-elections wave.

of the campaign.

Third, it is relevant to assess the effect of predisposition intensity on vote choice. It is not a surprise that the intensity of predispositions toward the favoured candidate has a strong effect on the probability of voting for the favoured candidate in both elections (Figure 3). Nevertheless, the lower intercept and the weaker effect of predispositions in 2016 suggest that there is more room for campaign information to influence vote choice in that election.

Figure 3: Average Predicted Probability of Voting for the Favoured Candidate Conditional on Predisposition Intensity



5.1 Test of Hypothesis 1

Since the dependent variable is vote for the favoured candidate, hypothesis H1 can be split into two sub-hypotheses that are reformulated to accommodate the coding of the variable:

> H1a. The likelihood of voting for the favoured candidate *increases* as the *favoured* candidate's emphasis on congruent issues increases.

> H1b. The likelihood of voting for the favoured candidate *decreases* as the *disfavoured* candidate's emphasis on congruent issues increases.

Although predispositions have a strong effect on vote choice, I find that campaign information still plays a role in the vote decision. The results support hypothesis H1a, as the effects of the congruence variables are in the expected direction and are statistically significant at standard levels in three of the four cases[11] (see the tables in Section E.1 of the appendix). As

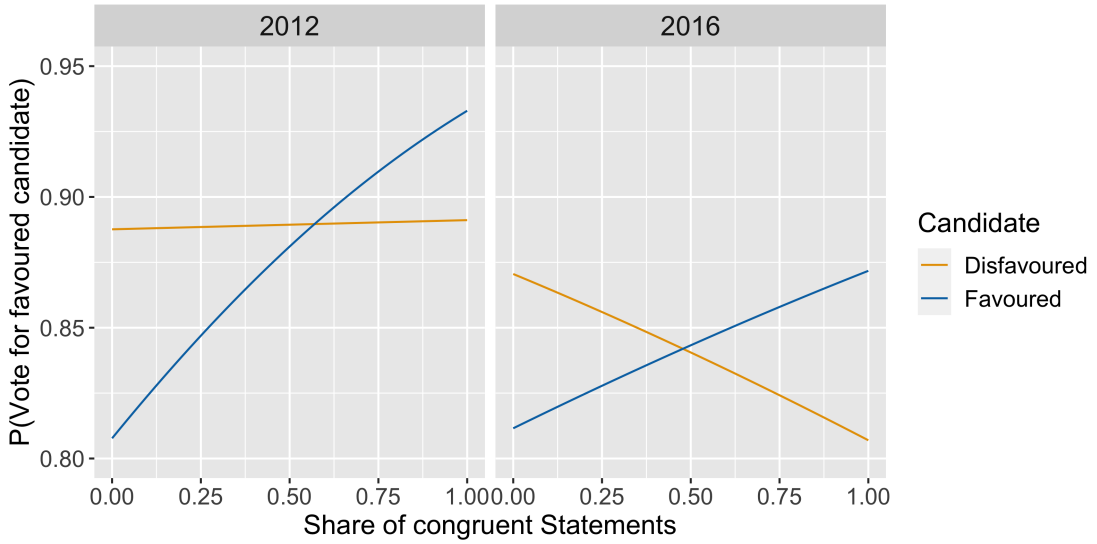
[11] 2 congruence variables $\times$ 2 elections $=$ 4 cases

the blue lines in Figure 4 show, the probability of voting for the favoured candidate increases as their share of congruent statements increases, in both elections. In 2012, the probability of voting for the favoured candidate increases by 13 percentage points over the range of the congruence variable, and in 2016, by 6 percentage points. There is only partial support for hypothesis H1b, as congruence with the disfavoured candidate has a negative effect on the probability of voting for the favoured candidate in 2016 only. In 2016, the probability of voting for the favoured candidate decreases by 6 percentage points as congruence with the disfavoured candidate moves from its minimum to its maximum.

5.2 Test of Hypothesis 2

However, these results do not provide much support for hypothesis H2. In 2012, the effect of congruence with the favoured candidate is stronger than the effect of issue congruence with the disfavoured candidate. However, in 2016, the effects of congruence with the favoured candidate and congruence with the disfavoured candidate have the same magnitude.

Figure 4: Average Predicted Probability of Voting for the Favoured Candidate Conditional on Congruence with Favoured Candidate and Congruence with Disfavoured Candidate



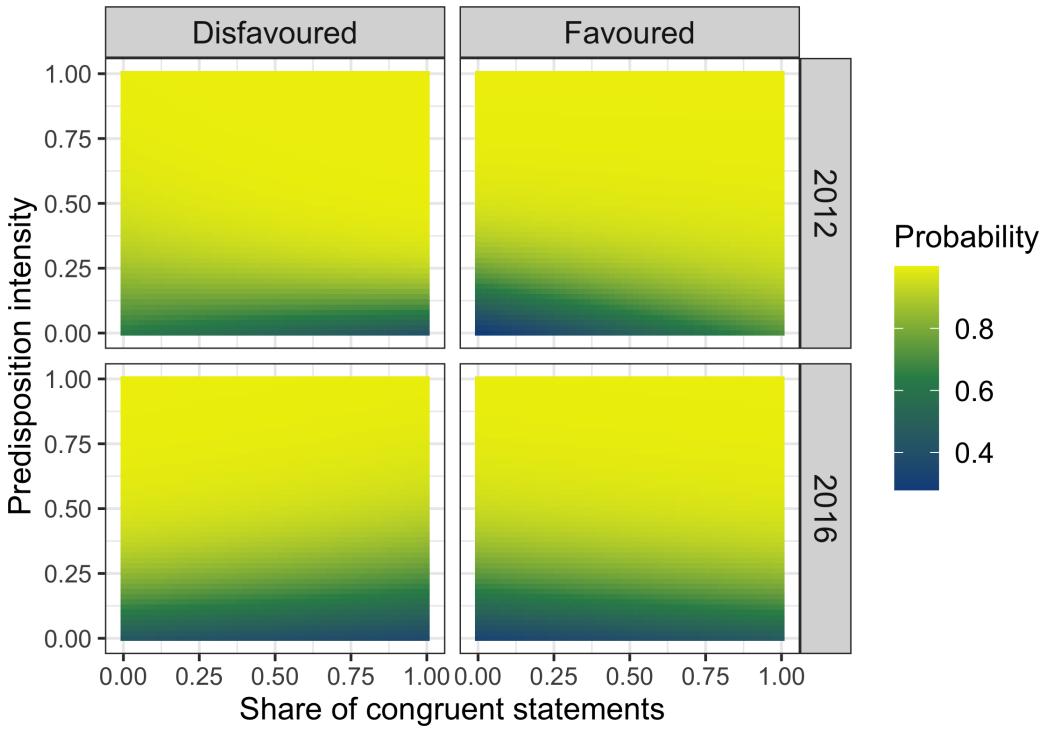
5.3 Test of Hypothesis 3

To test hypothesis H3, I include a two-way interaction between the congruence variables and predisposition intensity (see tables in Section E.2 of the appendix). As the gradient in colour in the left panels of Figure 5 shows, the negative effect of congruence with the disfavoured candidate on voting for the favoured candidate weakens as predispositions toward the favoured candidate grow stronger. Recall, the dependent variable is vote for the *favoured* candidate. Hence,

as congruence with the *disfavoured* candidate increases (on the horizontal axis), the probability of voting for the *favoured* candidate decreases (the colour becomes darker) at lower values of predisposition intensity (on the vertical axis). When predisposition intensity is strong, issue congruence does not seem to have an effect on the vote, as the monochromatic colour indicates that there is no change in the probability of voting for the favoured candidate. We observe opposite patterns for the favoured candidate, in the right panels. The plots show that the positive effect of congruence with the favoured candidate on the probability of voting for them also weakens as predispositions grow stronger. This constitutes preliminary evidence for H3.

Note also that the predisposition intensity threshold above which the magnitude of the effects of the congruence variables on the vote becomes negligible (< 5 percentage points) is around 0.4. Voters who have a score below 0.4 tend to be Independents (57% in 2012 and 64% in 2016). Yet, there is also a substantial share of voters with weak predispositions who are susceptible to campaign appeals among partisans. In 2012, 44% of the Democrats and 17% of the Republicans have a score below 0.4 on predisposition intensity. In 2016, that share is around 26% for both partisan groups.

Figure 5: Average Predicted Probability of Voting for the Favoured Candidate Conditional on Congruence Variables and Predisposition Intensity



To test these interactions formally, I use a z-test for the first and second difference in the

predicted probability of voting for the favoured candidate for a one-unit increase in congruence with the (dis)favoured candidate at weak and strong predisposition intensity. I set the values for weak and strong predispositions at .2 and .8 respectively to avoid extrapolation beyond the range of the data (see Figure 12 in Section C.2 of the appendix).

The estimates in Table 2 and Table 3 support hypothesis H3 since the effects of issue congruence are consistently stronger among voters with weak predispositions than voters with strong predispositions. The second differences (weak v. strong) is statistically significant at a .05 alpha level for all cases, except for the disfavoured candidate in 2012. In this election, congruence with the disfavoured candidate has a weak positive effect on the probability of voting for the favoured candidate that is not conditional on predisposition intensity. Most importantly, the direction of this effect goes against H1.

Table 2: 2012: Average Change in the Predicted Probability of Voting for the Favoured Candidate for a one-unit increase on Congruence with Favoured and Disfavoured Candidates at Weak and Strong Predisposition Intensity

Congruence	Predisposition	Δ	SE	z	P>|z|	95% CI
Favoured	Weak	.178	.049	3.64	.000	[.082, .274]
	Strong	.001	.002	0.36	.718	[-.003, .005]
Disfavoured	Weak	.035	.036	0.96	.338	[-.037, .106]
	Strong	.008	.005	1.65	.099	[-.002, .018]
N	3528					

Table 3: 2016: Average Change in the Predicted Probability of Voting for the Favoured Candidate for a one-unit increase on Congruence with Favoured and Disfavoured Candidates at Weak and Strong Predisposition Intensity

Congruence	Predisposition	Δ	SE	z	P>|z|	95% CI
Favoured	Weak	.112	.049	2.30	.021	[.016, .207]
	Strong	.004	.004	0.97	.332	[-.004, .011]
Disfavoured	Weak	-.118	.046	-2.55	.011	[-.208, -.027]
	Strong	-.007	.004	-1.74	.083	[-.014, .001]
N	2651					

However, the order of magnitude of the effects does not correspond to the hypothesized order presented in Table 1 (favoured–weak $>$ disfavoured–weak $>$ favoured–strong $>$ disfavoured–strong). In 2012, the estimates for the favoured–strong and the disfavoured–weak combinations are not precise enough to be ranked. In 2016, the estimates are more precise, but the differences across the candidates are too small to warrant a ranking. If we were to rank

them, however, the order would be: disfavoured–weak > favoured–weak > disfavoured–strong > favoured–strong. The main conclusion to be drawn from these results is that the effect of congruence with the disfavoured candidate can be as strong as the effect of congruence with the favoured candidate. Moreover, campaign issue statements have almost no effect among voters with strong predispositions.

These effects are also substantial individually. In 2012, moving from minimum to maximum congruence with the favoured candidate increases the probability of voting for them by almost 20 percentage points among voters with weak predispositions, and in 2016, by 10 points. In 2016, the results suggest that campaign communication from the two candidate cancelled out for voters who had similar levels of congruence with both candidates, as the positive effect of congruence with the favoured candidate and the negative effect of congruence with the disfavoured candidate are of equivalent magnitude.

Yet, additional tests show that there are heterogeneous effects across candidates, as some interactions between the main independent variables of interest and the identity of the favoured candidate are statistically significant at standard levels (See Section E.3 of the appendix). Notably, Trump in 2016 and Romney in 2012 seem to be driving the effect of congruence with the favoured candidate among voters with weak predispositions. In 2016, the effect of congruence with the disfavoured candidate is much stronger when Clinton is the favoured candidate than when it is Trump.

5.4 Electoral Outcomes: Activation and Persuasion

But do these individual-level effects matter for electoral outcomes? Can voters be activated or persuaded by the candidates' communication on issues? To assess the persuasion effects of issue congruence at the aggregate level, I use the share of votes for the disfavoured candidates that were correctly predicted by my campaign model.[12] Since we are assessing the predictive power of a model, the more relevant variables, the better. Hence I use the model that includes interactions with the identity of the favoured candidate and thus accounts for heterogeneous effects across candidates. In 2012, the share of voters who chose the *disfavoured* candidates is 4.3 percentage points (see Table 20). This suggests that the campaign persuaded 4.3% of the voters, i.e. it convinced them to defect from their favoured candidate. In 2016, 3.5% of the voters were persuaded by the campaign to vote for a candidate they were predisposed against (see Table 22). Unfortunately, we cannot use a similar method to identify activation effects, i.e. voters who were convinced by the campaign to vote for their favoured candidate. This is because we do not know how many voters who chose the candidate they were predisposed toward did it because of the candidates' issue statements during the campaign, and how many would have done so independently of the campaign.

In my study, activation refers to voters who vote for the candidate they are predisposed toward as a result of exposure to campaign information. Hence I do not discriminate between

[12]This corresponds to taking the difference between the percent of cases correctly predicted by the full model and the percent of cases correctly predicted by the null model (intercept only), which generates predictions based on the modal outcome category (vote for the favoured candidate). This is the method used by Kaplan et al. (2011).

voters who were undecided (those whom "activation" in the original typology refers to) and those who declared they had made a decision when the campaign started ("reinforcement" in the original typology). Nonetheless, my study makes a methodological contribution by proposing a method for the causal identification of these effects that improves on previous studies, which base their inferences on a simple comparison of vote intentions between two time points (Finkel, 1993; Lazarsfeld et al., 1948). These studies classify the voters who kept the same vote choice throughout as "reinforcement", and undecided voters who declared a vote intention at the end of the campaign as "activation". The issue with this method is that multiple causal mechanisms could explain these outcomes, including factors that are not related to the electoral candidates' campaigns. This is especially true for reinforcement—where there is no change in vote intention—as it is much harder to make a compelling causal claim when there is no variation in the outcome. Put another way, it is very likely that these voters would have kept the same vote choice had there been no campaign. For the "activated" voters, one could reasonably argue that as Election Day and the time of decision approach, undecided voters would draw on their long-term predispositions to make a decision even in the absence of a campaign. In contrast, it is much easier to make the case that deviating from one's long-term predispositions during the campaign is due to the specific content of the campaign. In sum, this method cannot ascertain whether these voters would have behaved differently had there been no campaign, or a different one. If they hadn't, that would mean that what is observed is not the campaign having an activation or a reinforcement effect, but a null effect. To address this issue, I use a test based on counterfactual reasoning.

To get an idea of the extent of campaign activation, we can compare electoral outcomes under the worst-case campaign scenario for the favoured candidate, one that would encourage defection, to the best-case scenario, where campaign information confirms the voter's predispositions. One can reasonably argue that the voters who choose their favoured candidate in the worst-case scenario do so *exclusively* because of their long-term predispositions, and not policy information.[13] Hence, the share of voters who choose their favoured candidate despite incongruent issue positions in the worst-case scenario is a baseline against which we can assess campaign effects. More specifically, we want to know what proportion of voters in the best-case scenario voted for their favoured candidate because of congruent issue positions, and would not have done so otherwise.

To estimate this quantity, I generate a two-by-two contingency table of congruent statements prevalence (minority or majority) by candidate (favoured or disfavoured). I use the average predicted probability of voting for the favoured candidate under the worst-case scenario, i.e. a *minority* of the *favoured* candidate's issue statements are congruent and a *majority* of the *disfavoured* candidate's issue statements are congruent, as a baseline for estimating the share of voters who would vote for their favoured candidate regardless of the issue positions of the candidates. Then, I subtract it from the average predicted probability of voting for the favoured candidate under the best-case scenario, i.e. a *majority* of the *favoured* candidate's statements are congruent and a *minority* of the *disfavoured* candidate's statements are congruent. That results in a difference of 4 percentage points. That means 4% of the voters who were under the

[13] In reality, other types of campaign information than policy information could activate voters, including the candidates' character traits. However, this is not relevant for the purpose of my study, which is to isolate activation effects caused by campaign communication on policy issues.

best-case scenario voted for the favoured candidate due to campaign information. Then, I scale that proportion to the overall proportion of voters who fall in the best-case scenario category (61%). The result suggests that at least 2% of the voters in the 2012 election were activated by the campaign. When we add voters in residual categories (voters who have only "one reason" to vote for the favoured candidate; either a majority of the favoured candidate's statements were congruent *or* a minority of the disfavoured candidate's statements were congruent), the total share of voters who were activated by the campaign is 3%. In 2016, the total share of activated voters is 5%.[14]

Yet, the rate of activation is likely to vary depending on who is the favoured candidate. In 2012, the model predicts that 100% of voters who were predisposed toward voting for Obama during the campaign voted for him, while only 87% did the same for Romney. This suggests that Romney failed to activate a substantial share of voters who were predisposed to vote for him, while Obama was more successful. Yet, my results show that issue congruence with Obama among voters who favoured him had little effect on their vote choice, hence that campaign activation via issue appeals is not the story here (see Section E.3). In 2016, 96% of voters who had Clinton as their favoured candidate voted for her, and 91% who favoured Trump voted for him. These differences could be explained by differences in the distributions of issue congruence across candidates. While the effects of issue congruence with the favoured candidate were stronger for Trump and Romney, they had lower levels of congruence with voters who were predisposed toward voting for them than Clinton and Obama (see Figure 9 in Section C.1 of the appendix). The rate of activation is also likely to vary across the campaign timeline since the voters' predispositions are measured throughout and the emphasis candidates put on issues, and even the direction they take, sometimes shift during the campaign. Both Romney and Trump saw the share of voters who favoured them and had congruent issue positions increase starting at mid-campaign. These shifts coincide with changes in their positions on social mobility and healthcare.[15]

6 Discussion

Some argue that the growing polarization of politics and mobilization of partisan identities in the United States means that voters have already made their minds when the official campaign starts. This narrative has fed the view that "campaigns don't matter". However, the findings of this study show that the campaign does matter. The issue positions that candidates take during the campaign and how they strategically emphasize certain issues over others influence voters' decisions. The fact that policy information still has an effect on vote choice after taking into account voters' predispositions toward candidates is remarkable enough, given that this

[14] In order to create appropriate counterfactuals, I use average predicted probabilities (see Section H of the appendix for more detail). This setup allows me to simulate a counterfactual where voters in the best-case scenario are similar to the voters in the worst-case scenario in every respect except for the congruence of their issue positions with the candidates'. Ideally, we would want to assign voters to these scenarios randomly. However, by controlling for a host of demographic variables as well as predisposition intensity and the identity of the favoured candidate, I mitigate the risk of confounding bias.

[15] Figures 13 and 14 in Section D of the appendix show the candidates' issue positions across the campaign timeline. Figure 15 shows congruence with the favoured candidate by favoured candidate identity across the campaign timeline.

variable is strongly correlated with the outcome. Indeed, the baseline probability of voting for the favoured candidate is quite high. In the worst-case scenario, where policy information pushes against voting for the favoured candidate, more than four out of five voters still choose this candidate in the polling booth. Yet, I find evidence of persuasion and activation effects at the individual level, when explaining vote choice, and at the aggregate level, when predicting electoral outcomes. Hence the 2012 and 2016 U.S. presidential campaigns both persuaded voters to vote for a candidate they were initially predisposed against and convinced undecided voters to vote for the candidate they were predisposed toward.

At the individual level, overall the findings show that congruence between the voter's and the candidate's issue positions increases the likelihood of voting for the candidate (H1). However, there is an exception for the disfavoured candidate (the one the voter is predisposed against) in 2012. In this election, issue congruence with the disfavoured candidate has a *positive* effect (although not statistically significant at standard levels) on the probability of voting for the favoured candidate. This counterintuitive effect could be caused by confounding due to voters changing their issue positions after their measurement to match their favoured candidate's stand on certain issues. Since candidates for the most part took contrasting positions, if voters change their positions to follow their favoured candidate, positions that were initially congruent with the disfavoured candidate become incongruent and have a positive effect on the probability of voting for the favoured candidate. Hence it appears that Lenz' (2009; 2012) "following" mechanism biased my estimates downward, producing—at least—conservative estimates, and most likely switching the sign of the effect of congruence with the disfavoured candidate in 2012.

Voters who feel more strongly toward a candidate should have a higher baseline probability of voting for their favoured candidate, and as a result, be less susceptible to campaign effects. Indeed, the findings support the hypothesis that the magnitude of the effect of issue congruence on vote choice decreases as the intensity of predispositions toward the favoured candidate increases (H3). Overall, the results show that issue congruence has stronger effects on electoral support among voters with weaker predispositions. The exception is congruence with the disfavoured candidate in 2012. In this case, issue congruence has a weak and non-statistically significant effect among voters with weak predispositions, which is probably due to confounding bias caused by Lenz' "following" mechanism (2009; 2012).

The theory also suggests that voters engage in selective exposure to information and motivated reasoning that result in a bias for information that confirms their predispositions. However, the evidence for the hypothesis that the magnitude of the effect of issue congruence on vote choice is greater for the favoured candidate than for the disfavoured candidate (H2) is inconclusive. In 2012, issue congruence with the favoured candidate had a stronger effect than congruence with the disfavoured candidate. In 2016, however, the magnitude of the effect of issue congruence with the disfavoured candidate is equal to the magnitude of the effect of issue congruence with the favoured candidate. It is unclear whether this is due to the presence of a maverick candidate, Donald Trump, which would have neutralized partisan resistance among voters predisposed toward voting for Clinton and encouraged them to consider his policy positions. Further analysis on more cases is necessary to determine whether congruence with the disfavoured candidate has substantial effects on vote choice in elections with candidates who

take issue positions that are aligned with their party's.

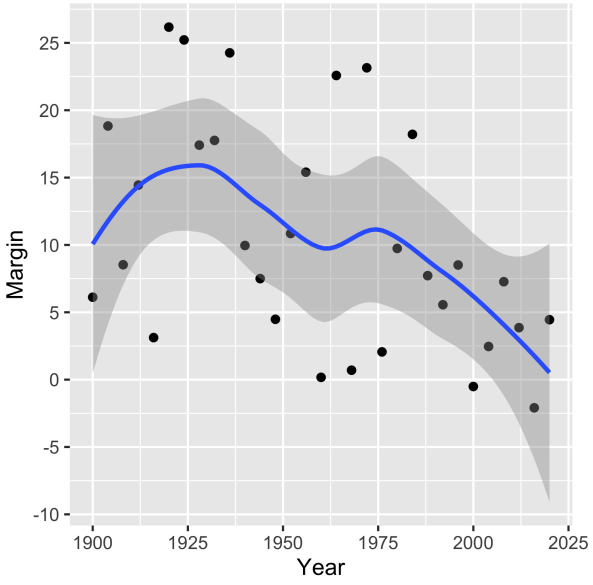
At the aggregate level, my findings show that only a small share of voters were persuaded to defect from their favoured candidate (4%) based on issue appeals during the campaign. This is not surprising given that voters tend to have high levels of issue congruence with their favoured candidate and low levels of issue congruence with candidates they are predisposed against. Most voters have already adjusted their predispositions toward candidates in order to be consistent with their issue positions by the time the official campaign starts. In other words, they have "sorted out". These estimates are smaller than those found in similar studies that analyze persuasion effects on vote choice reported in post-election surveys (Finkel, 1993; Mayer, 2008; Peterson, 2015), hence they are probably conservative.[16] My findings also show activation effects whereby campaign issue appeals convinced between 3% and 5% of the voters to vote for their favoured candidate. These effects are of similar magnitude than those found in another study that looks at the general activation effect of the campaign by controlling for factors specific to each campaign (Kaplan et al., 2011). This suggests that while some voters have sorted out early in the electoral cycle, others need to confirm their preferences. The campaign allows them to check that the relative positions of the candidates on important issues match their prior beliefs.

While these effects are small, they can make a difference in close races, especially since the margins of victory in presidential elections have become smaller over the last few decades, as Figure 6 shows. When combining activation and persuasion effects, issue appeals during the 2012 presidential campaign had an impact on the decision of 7% of the voters, and in 2016, 9%. These total effects would have been large enough to determine electoral outcomes since the 1980s, where margins of victory have consistently stayed below 10%.

[16]These studies and mine focus on effects that last until Election Day, as opposed to short-term volatility during the campaign. Hence these effect are likely to be smaller than the immediate effects of ads or campaign events like debates, which tend to wear off with time. The study with the highest share of persuaded voters is Peterson (2015), which estimates that 10% of the voters were persuaded to change their vote choice as a result of the 1976 U.S. presidential campaign. However, note that these studies examine different elections and types of campaign information, like candidates' image and the incumbent's record, and other methodologies to estimate the share of persuaded voters. Using more information would allow the explanation of a greater share of variance in the vote among voters who did not choose the candidate they were initially predisposed toward.

Figure 6: Margin of Victory (% of Votes)

(a) Data: Peters, *Presidential Election Margin of Victory*
Method: Smoothing by local regression (LOESS)

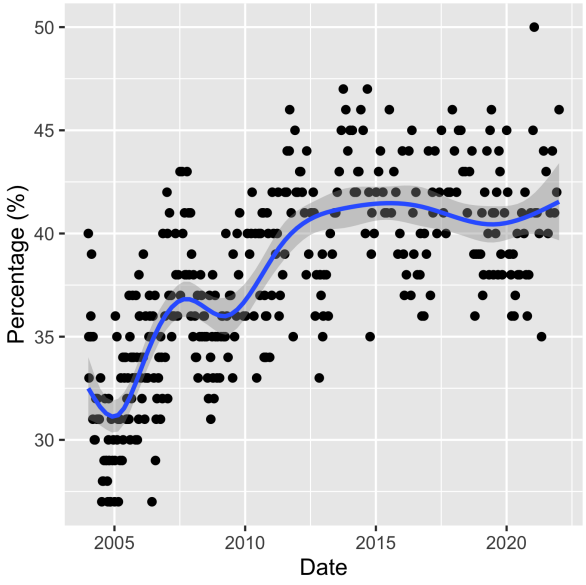


In 2012 and 2016, fundamentals predicted a close race, mainly due to the sluggish economic recovery after the 2008 financial crisis. The predicted margin of victory in the vote share of the "clarifying" candidates, those advantaged by the economy, was 2 percentage points for both Obama in 2012 (Sides & Vavreck, 2013, p.30) and Clinton in 2016 (Sides et al., 2018, p.21). Hence there was room for the "insurgent" candidates' campaigns to turn the tide by successfully mobilizing voters on other issues. In both elections, it is interesting to see that congruence with the favoured candidate mattered most for the insurgent candidates, Romney and Trump, and had little effect on electoral support for Obama and Clinton. This makes sense since clarifying candidates should prime their economic record in order to convince voters to vote for them, as Vavreck's theory suggests (2009). Hence their messages on the positional issues analyzed in this study should not matter if they succeed in priming voters to think about their performance on the economy. In contrast, insurgent candidates like Romney and Trump needed to reassure voters who were predisposed toward voting for them that they were on their side of the issues. In 2012, Romney failed to mobilize enough voters on his main issue, the budget, which allowed Obama's prime of the economy to prevail (Sides & Vavreck, 2013). In 2016, Trump succeeded in turning the election into a referendum on American identity, effectively priming issues like immigration. This allowed him to persuade a substantial share of Democrats to turn their back on Clinton (Fowler, 2020; Sides et al., 2018). While my data shows that Clinton had more voters on her side of the issues than Trump, she was not able to capitalize on this since voters judged her on the economic performance of her predecessor, Obama. As the economy was on her side, she did win the popular vote. Yet, it was not enough. Thanks to his issue appeals and his overall strategy, Trump won the electoral college.

My findings challenge the "partisan intoxication" thesis by showing that voters responded favourably to congruent information from the candidate they were predisposed against in 2016. They also show that persuadable voters still exist despite high level of polarization in U.S. politics. These results corroborate the informational interpretation of campaign effects in Broockman and Kalla (2020), Fowler (2020), whereby voters—even partisans—update their vote intentions after being exposed to increasing amounts of congruent policy information. Moreover, the fact that the effects of issue congruence were stronger for Romney and Trump could be due to voters having weaker priors about these candidates than high-profile candidates like Obama, an incumbent, and Clinton, who had been in the Obama administration. This would lend support to the Bayesian theory of campaign effects of Broockman and Kalla (2020). My study also includes Independents, who represent around 40% of the electorate, yet are not included in studies on persuasion effects. While some argue that Independents are just "undercover" partisans who think and vote the same, but differ in their level of engagement in partisan politics, I show that Independents also differ in the intensity of their predispositions. That has important implications in terms of voting behavior, as their weaker predispositions toward electoral candidates make them more responsive to campaign appeals than partisans. Moreover, since the share of Independents has been steadily growing over time (see Figure 7), that would shift the distribution of predisposition intensity toward weaker values, which would increase the size of campaign effects on electoral outcomes. Hence we should observe a greater share of voters who are persuaded or activated by the campaign as party attachments weaken and parties lose their grips on voters.

Figure 7: Percentage of Voters who are Independents

(a) Data: Gallup, *Party Affiliation.*
Method: Smoothing by GAM with cubic splines



My study also makes a number of methodological contributions to the literature on campaign effects and issue voting. The two main contributions concern causal identification and the precision of the measurement of campaign information. On the latter, a lot of studies on campaign effects at the aggregate level just measure change in vote intentions at different points in the electoral cycle, which does not allow the explanation of the mechanisms through which campaigns influence voter behaviour (other than a general reaction to campaign events). The studies that focus on issue voting either do not measure the information on the candidates' issue positions provided by the campaign (they use voters' perceptions of the candidates' issue positions or electoral platforms released before the campaign) or when they do, they use crude dichotomous measures (the issue is emphasized or not). My study uses a precise measure of issue emphasis during the campaign that captures the strategic nature of political communication and is more likely to reflect the actual degree of exposure to the candidates' issue positions in the electorate. In terms of causal identification, using an exogenous measure of the candidates' issue positions also prevents confounding bias due to voters overestimating or underestimating the distance between their positions and the positions of the candidates based on their predispositions. By measuring voters' issue positions before measuring their vote choice and the candidates' issue positions, I also prevent an upward bias in the estimate of the effect of issue congruence on vote for the favoured candidate due to voters following their party and changing their issue positions to match theirs. Finally, I use a test based on counterfactual reasoning to identify whether the communication of candidates on issues is a causal mechanism for reinforcement and activation effects. This improves on prior studies that use a simple difference in vote intentions between two time points, which potentially overestimate

these effects, or studies that only look at the campaign as a generic process and control for year-specific factors—including those linked to the strategies of the candidates—(Gelman & King, 1993; Kaplan et al., 2011), which potentially underestimate these effects.

However, there are important caveats when interpreting my results. By choosing that measurement scheme, I have traded off upward bias for downward bias since I cannot control for voters following their party on issues. For the favoured candidate, unobserved changes in the voters' issue positions after their measurement could induce a bias toward zero in the estimate of the effect of issue congruence on vote for the favoured candidate—in other words, a conservative estimate. For the disfavoured candidate, this could create a bias toward zero and even a reversal of the direction of the effect of issue congruence on vote for the favoured candidate. Since there is no other logical reason for such a reversal, this type of bias is easily identifiable. The reversal of the sign on the effect of issue congruence with the disfavoured candidate in 2012 suggests that this effect is biased and that the other estimates of the effect of issue congruence on vote choice are conservative. While false negatives are more acceptable than false positives, the reader should keep in mind that actual campaign effects are probably stronger. To address confounding by the "following" mechanism, future research could use panel data in order to measure and control for voter change in issue positions. Future research could also mitigate the downward bias in the magnitude of the estimates by using data from a pre-campaign survey wave with a large enough sample size. The setup of the present study gives less weight to information earlier in the campaign, yet this is the information that is the most likely to have an effect due to its novelty. By measuring voter predispositions all at once before the start of the campaign instead of on a rolling basis during the campaign, the subsequent measurement of campaign information would cover the full extent of the campaign for each voter and thus would better capture campaign effects. Another caveat is the presence of heterogeneous effects across candidates. Further analysis with more cases is needed to see whether the effects of issue congruence on vote choice identified in this study generalize to other presidential elections in the United States.

7 Conclusion

The dominant narrative in the literature on campaign effects has been that "campaigns don't matter". This study employed exogenous and precise measurements of campaign information to assess the causal effect of campaign issue appeals on vote choice and electoral outcomes in U.S. presidential elections. Taken altogether, my findings show that campaigns influence the voters' decision-making process by providing information on where the candidates stand on important issues and how strongly they commit to these positions. Furthermore, these effects have an influence on electoral outcomes in the aggregate, and can determine the winner of the election in close races. This is especially relevant as the margins of victory have become smaller in recent elections.

These findings have important implications for democracy. They show that campaigns matter and that policy information still plays an important democratic function, even in a highly polarized political system. Furthermore, the increasing trend in the share of voters who do not identify with a party suggests that campaigns have the potential to have greater effects

in the future, as my results show that voters with weaker predispositions are more responsive to campaign information. Independents may be disaffected "undercover" partisans, but they are partisans who need reassurance. While they may have disengaged from partisan politics, they are more likely to reason about what electoral candidates have to offer in terms of policy and how it relates to their own interests. My findings also cast doubt on the "partisan intoxication" thesis by showing that voters do respond to information from a candidate they are predisposed against. To strengthen these claims, however, further analysis of additional elections is needed.

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Appendix

A Typical Tweets by Issue and Directional Position

A.1 Climate

Promote Climate Action

"Hillary Clinton will make solving the climate crisis a top national priority." —@AlGore

We need to elect people up and down the ballot, at every level of government, who take climate change seriously and are ready to take it on.

We can't afford a president who would sabotage our efforts to fight climate change.

Anti Climate Action

From Trump' Contract with the American Voter linked in tweet:

I will lift the restrictions on the production of $50 trillion dollars' worth of job-producing American energy reserves, including shale, oil, natural gas and clean coal.

[I will] cancel billions in payments to U.N. climate change programs and use the money to fix America's water and environmental infrastructure.

A.2 Immigration

Facilitate Immigration

Trump has built his campaign on demonizing Latinos and immigrants. Latino voters have the power to stop him. Vote:... https://t.co/xzjpCza0E3

When pressed about Trump insulting and demonizing Latinos and immigrants, Mike Pence had a...telling response. https://t.co/QREumskeC2

"You are right about Islamophobia, and it's a shame." —Donald Trump, who proposed a ban on Muslims entering the U.S.

Limit Immigration

One of my first acts as President will be to deport the drug lords and then secure the border. #Debate #MAGA

Hillary supports and wants sanctuary cities. We need to provide sanctuary for our OWN citizens, fellow Americans. https://t.co/5ZAoN1fZok

Hillary has called for 550% more Syrian immigrants, but won't even mention "radical Islamic terrorists." #Debate... https://t.co/Rf48XkZWbu

A.3 Economy

Gov. intervention in Economy

We are not going to let big business and big corporations call the shots anymore. That is not working for us....

President Obama: "If we rally around a new economic patriotism together—if we reclaim our values—we will rebuild this economy."

"We believe we're all in this together. We don't believe this economy grows from the top down; we think it grows from the middle out."

Free Market

MY PRO-GROWTH Econ Plan: Eliminate excessive regulations! Lean government! Lower taxes! #Debates

A Clinton economy = more taxes and more spending! #DebateNight

Free people and free enterprise create growth and opportunity, not government redistribution.

A.4 Healthcare

Expand Public Healthcare

Hillary Clinton and Tim Kaine want to build on Obamacare. Mike Pence Fact check: True. #VPDebate

President Obama: Öur economy is stronger when everybody can count on affordable health insurance.#Forward

Obama: "As long as I'm President, I will never turn Medicare into a voucher just to pay for another millionaire's tax cut."

Restrict Public Healthcare

Obamacare is a disaster—as I've been saying from the beginning. Time to repeal & replace! #ObamacareFail

I am going to repeal and replace ObamaCare. We will have MUCH less expensive and MUCH better healthcare. With Hillary, costs will triple!

From the debt rising even higher to Obamacare being here to stay, it's clear that we can't afford four more years

A.5 Social Mobility

Facilitate Social Mobility

We've got to raise the minimum wage. No one who works full-time should still be in poverty.

We make our country greater when we widen the circle of opportunity and invite more people in

We have to build an economy that works for everyone, not just those at the top. #DebateNight

Restrict Social Mobility

Hillary Clinton just lost every Republican she ever had, including Never Trump, all farmers & sm. biz, by saying she'll tax estates at 65%.

I am running for president to get us creating wealth again – not to redistribute it.

We believe in free people & free enterprise, not redistribution. The right course is to create growth & wealth, not to redistribute wealth.

A.6 Budget

Anti-austerity

Spread the word: President Obama is strengthening Medicaid, while Mitt Romney's budget would cut it by one-third.

RT @AdamFetcherOFA: The Romney-Ryan Budget could slash diplomatic security by $300 million over 2 years. #WrongAgainRyan

On Romney's deficit plan: "We haven't heard from the governor any specifics beyond Big Bird & eliminating funding for Planned Parenthood."

Pro-austerity

With more spending and more debt, @BarackObama is failing American families

The national debt is over $16 trillion. It's time for a president who will lead us out of this spending inferno

President Obama: "My plan will actually cut the deficit, unlike Gov. Romney's." #AmericaForward

B Coding of Congruence Variables: Examples

To understand better the implications of my measurement strategy, I provide examples of the scores my congruence variables would take for different distributions of issue positions by candidate. Issue positions can take a value of -1 or 1. For the sake of simplicity, the voter always takes a position of -1 on any issue.

In the first example (Table 4), there are two issues and the total number of issue statements (40) is constant across candidates. In this scenario, both candidates consistently take a position that is congruent with the voter's on issue 1, and consistently take a position that is incongruent with the voter's on issue 2. However, Candidate A puts a greater emphasis on issue 1, hence congruence with candidate A, C_A, is higher than congruence with candidate B, C_B:

$C_A = 20/40 = .5$
$C_B = 10/40 = .25$

Table 4: Example 1: Number of Issue Statements by Issue, Candidate, and Position

		Position	
Issue	Candidate	-1	1
1	A	20	0
	B	10	0
2	A	0	20
	B	0	30

In the second example (Table 5), there is one issue and both candidates make 30 statements that are congruent with the voter's position. However, the consistency of the issue positions vary across candidates. Candidate A also makes statements that are incongruent, while Candidate B only makes congruent statements. In this case, the most consistent candidate, candidate B, would have the highest congruence:

$C_A = 30/40 = .75$
$C_B = 30/30 = 1$

Table 5: Example 2: Number of Issue Statements by Candidate and Position

		Position	
Issue	Candidate	-1	1
1	A	30	10
	B	30	0

In the third example (Table 6), there is one issue and the total number of issue statements (40) is constant across candidates. Candidate A makes an equal number of statements on each side of an issue. This candidate will be disadvantaged if Candidate B makes relatively more statements on the congruent side (the total number of statement being constant across candidates, this would imply greater emphasis). In this case, the most consistent candidate, candidate B, would have the highest congruence:

$C_A = 20/40 = .5$
$C_B = 30/40 = .75$

Table 6: Example 3: Number of Issue Statements by Candidate and Position

		Position	
Issue	Candidate	-1	1
1	A	20	20
	B	30	10

C Distributions of Independent Variables

C.1 Univariate Distributions

Figure 8: Distribution of Predisposition Intensity by Year

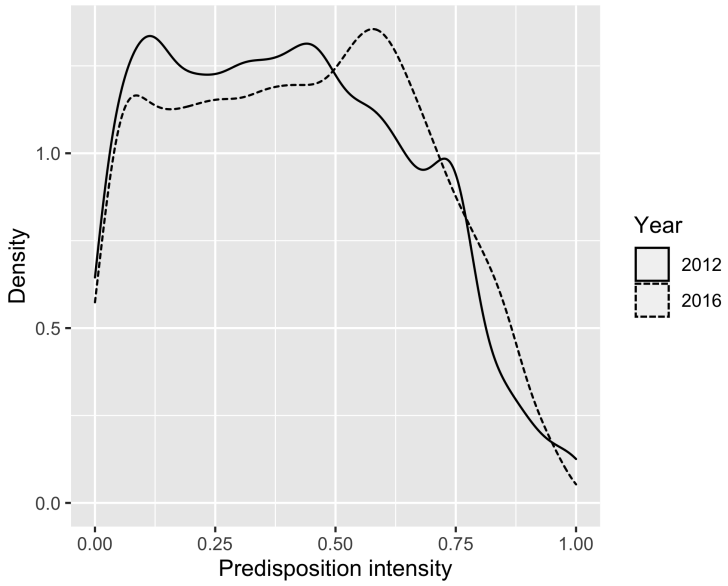


Figure 9: Distribution of Congruence with Favoured Candidate by Year and Candidate

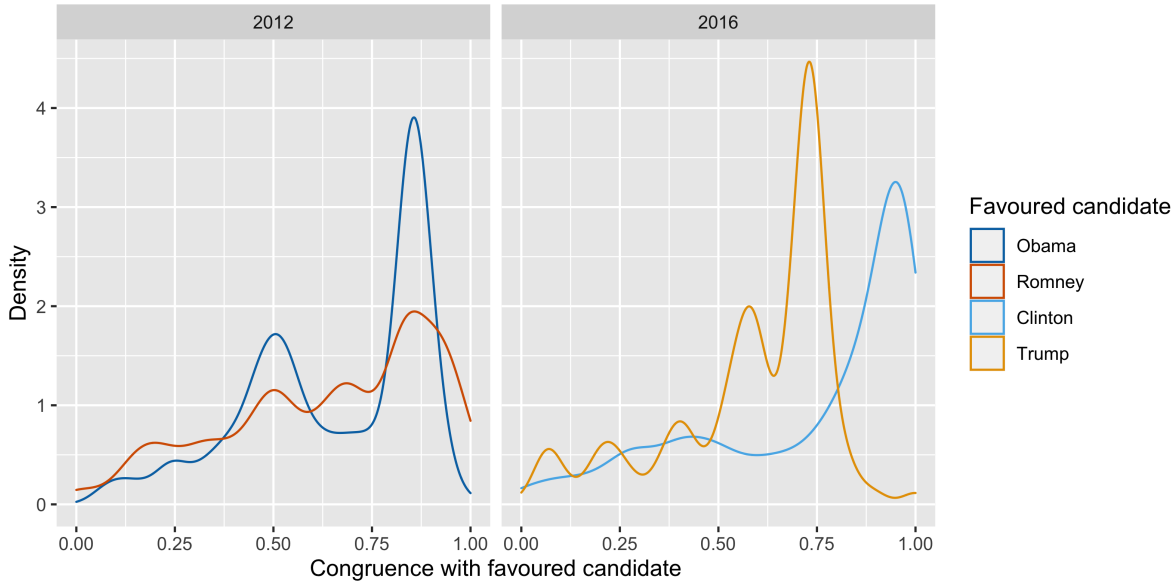
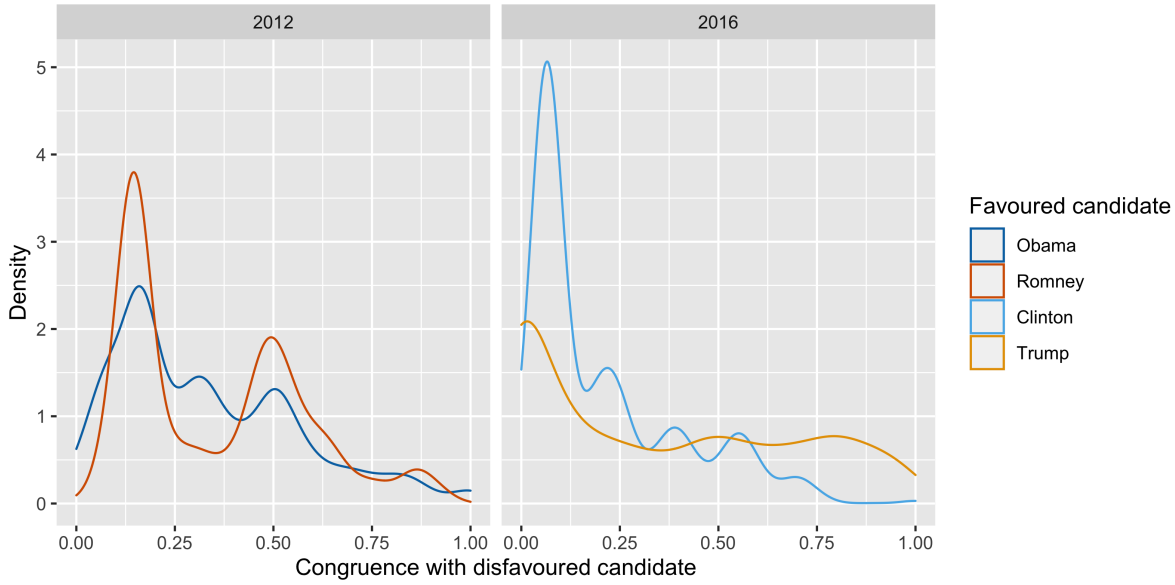


Figure 10: Distribution of Congruence with Disfavoured Candidate by Year and Candidate



C.2 Multivariate Distributions

Figure 11: Predisposition Intensity by Party Identification

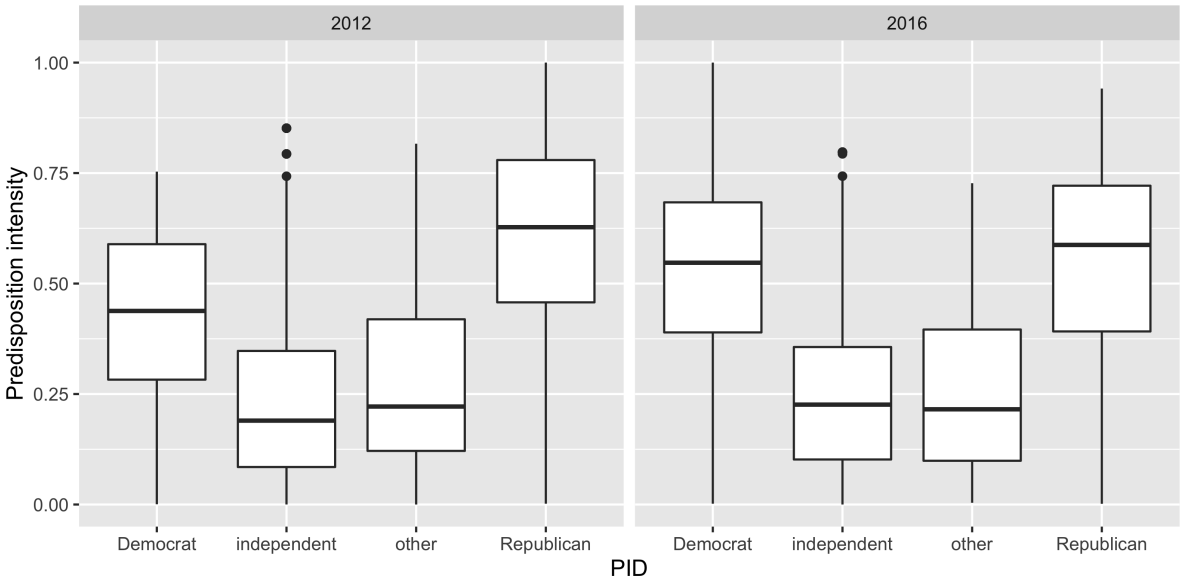
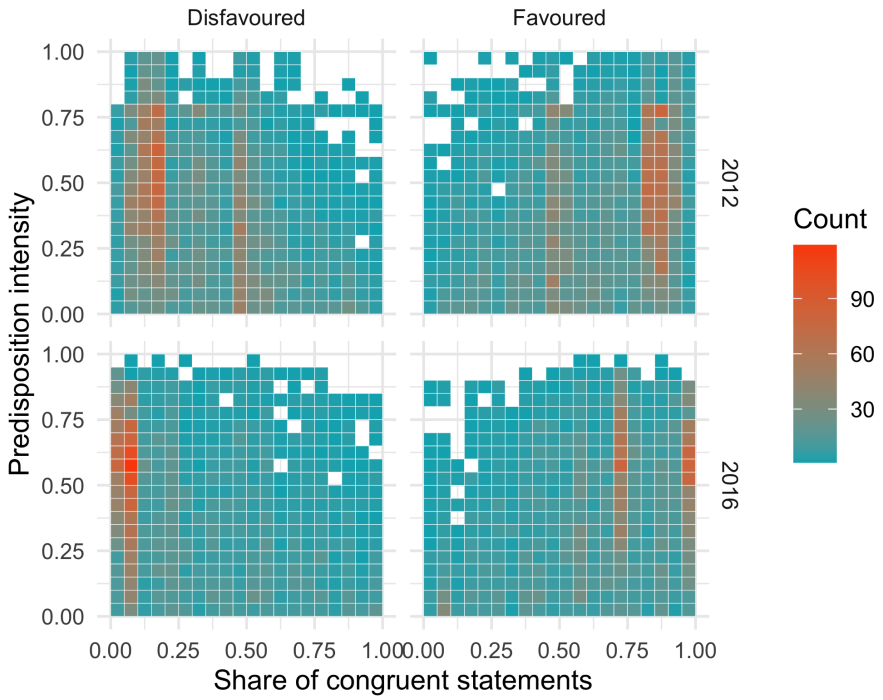


Figure 12: Bivariate Distribution of Congruence variables and Predisposition Intensity by Candidate and Year



D Distribution of Issue Positions by Candidate

Table 7 and Table 8 show the distribution of issue positions by issue and candidate.

Table 7: 2012: Frequency of Issue Position by Issue and Candidate

		Position	
Issue	Candidate	Left	Right
Budget	Obama	13	30
	Romney	0	28
Economy	Obama	90	28
	Romney	1	26
Healthcare	Obama	74	0
	Romney	2	3
Social mobility	Obama	167	1
	Romney	25	11

Table 8: 2016: Frequency of Issue Position by Issue and Candidate

Issue	Candidate	Position	
		Left	Right
Climate	Clinton	31	0
	Trump	0	3
Economy	Clinton	17	0
	Trump	0	18
Healthcare	Clinton	9	0
	Trump	0	28
Immigration	Clinton	14	0
	Trump	0	13
Social mobility	Clinton	66	0
	Trump	5	6

Figure 13 and Figure 14 show the direction taken by candidates on the main issues of the campaign. To trace these across the campaign timeline, I use a smoother (GAM with cubic splines). Fitted values on the Right and Left poles indicate maximum consistency of the issue positions across statements, while values in between indicate a mix of positions (some on the Left, and some on the Right) on a given day. Note that in 2016, I did not include climate change because Trump made too few statements to plot a time trend. Figure 15 shows congruence with the favoured candidate by favoured candidate identity by day of interview. Recall, congruence is measured based on the issue positions of the voter on the campaign interview day and the issue positions of the candidate measured *after* that interview.

Figure 13: 2012: Emphasis on Issue Position by Issue, Candidate and Date

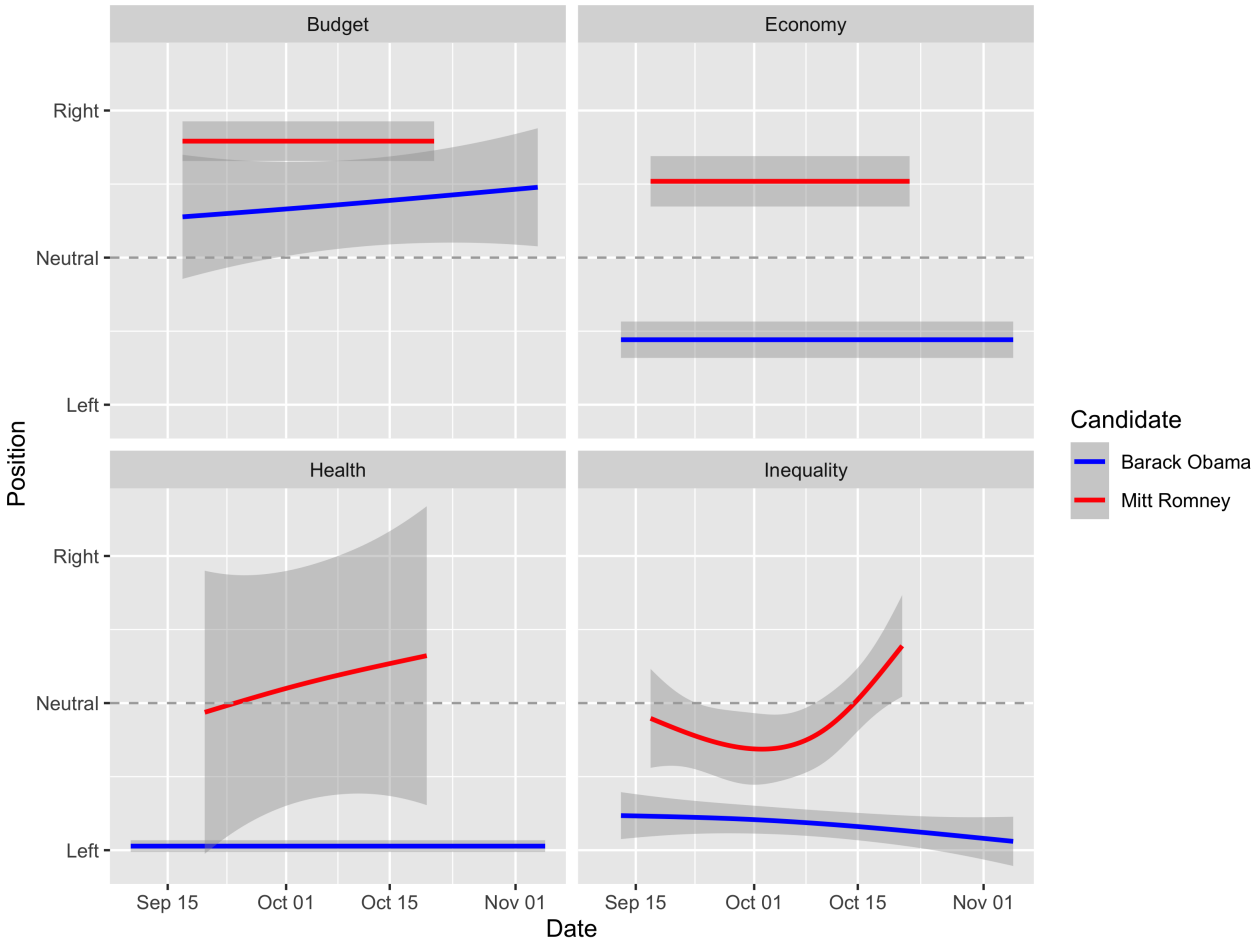


Figure 14: 2016: Emphasis on Issue Position by Issue, Candidate and Date

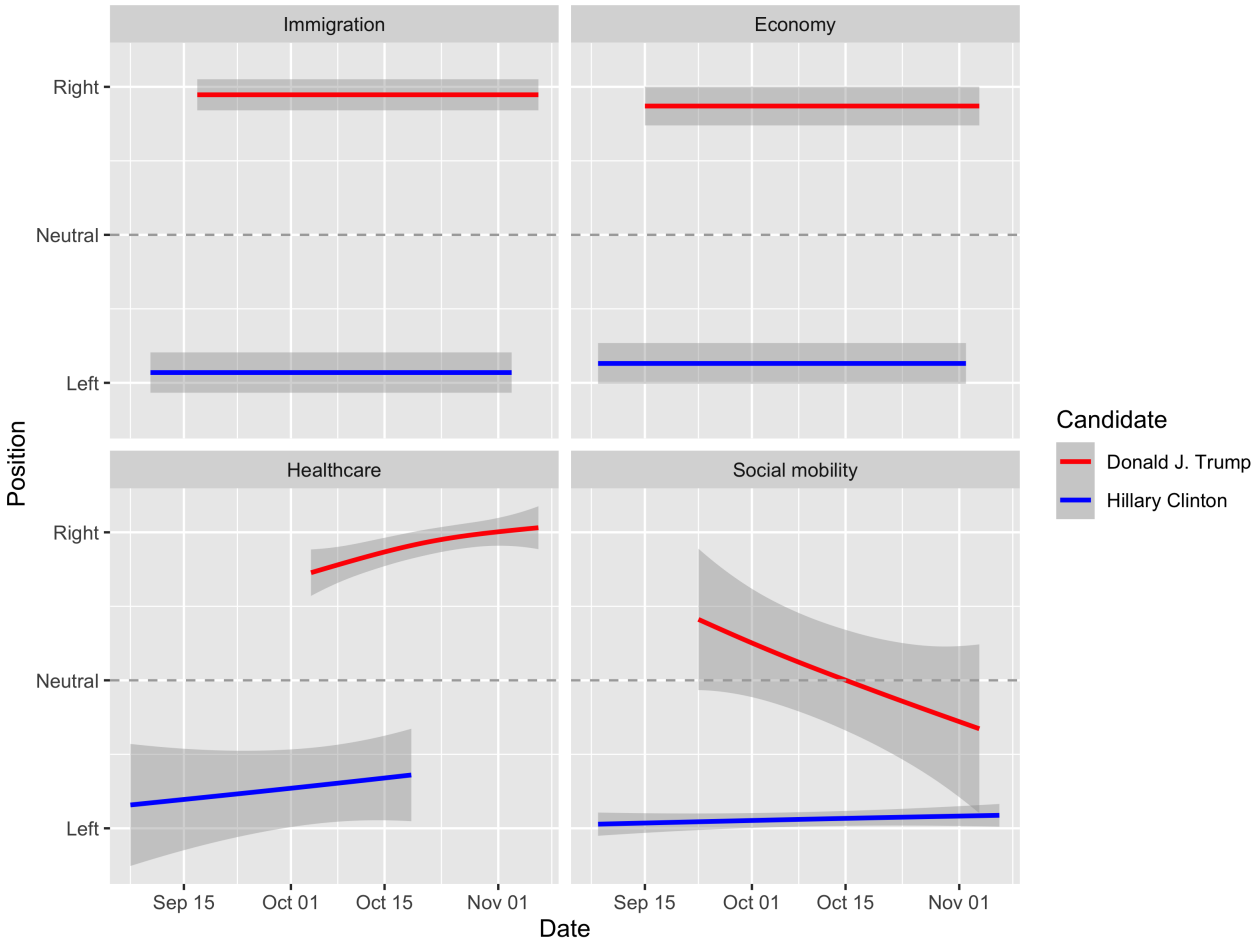
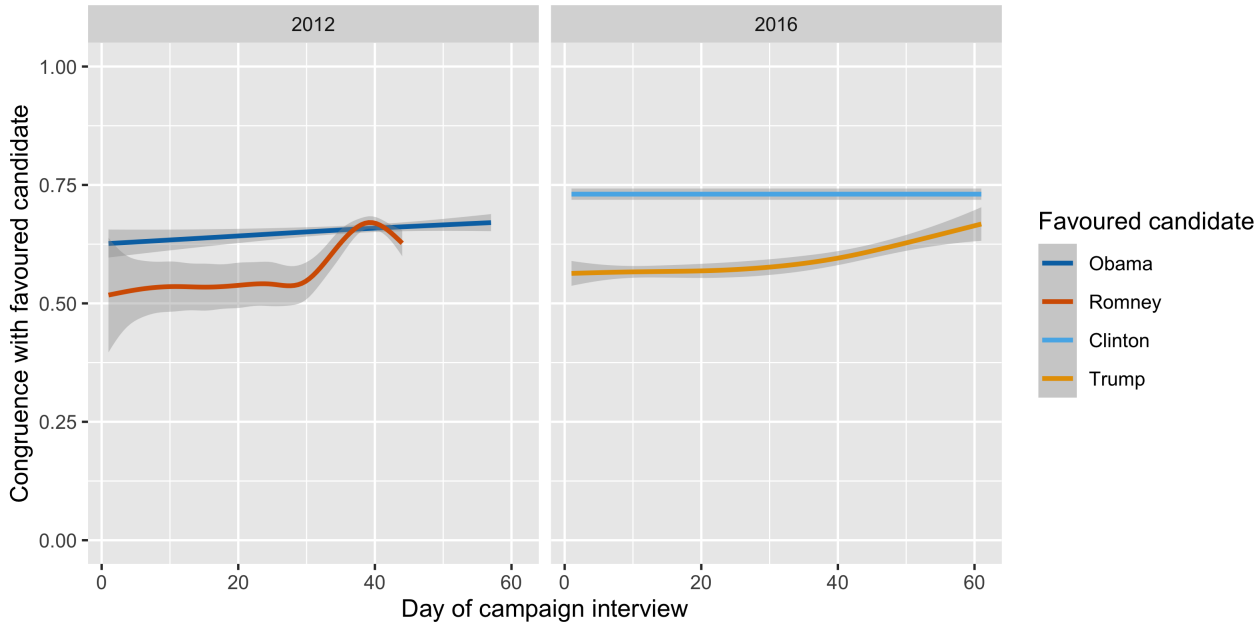


Figure 15: Congruence with Favoured Candidate by Favoured Candidate Identity across the Campaign



E Binomial Logistic Regression: Regression Tables

E.1 Regression Model with Main Effects of Campaign Variables

In this section I present the models and estimates that were used in Figure 3 and Figure 4.

Table 9: 2012: Binomial Logistic Regression of Vote for Favoured Candidate on Predisposition Intensity and Issue Congruence

	Dependent variable:
	Vote for Favoured Candidate
Congruence (favoured)	1.552^{***}
	(0.303)
Congruence (disfavoured)	0.047
	(0.295)
Predisposition intensity	7.917^{***}
	(0.484)
Constant	-1.417^{***}
	(0.516)
Observations	3,528
Log Likelihood	-742.078
Akaike Inf. Crit.	1,522.156

*p<0.1; **p<0.05; ***p<0.01
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious

Table 10: 2016: Binomial Logistic Regression of Vote for Favoured Candidate on Predisposition Intensity and Issue Congruence

	Dependent variable:
	Vote for Favoured Candidate
Congruence (favoured)	0.638^{**}
	(0.298)
Congruence (disfavoured)	-0.666^{**}
	(0.280)
Predisposition intensity	7.369^{***}
	(0.454)
Constant	-0.727
	(0.571)
Observations	2,651
Log Likelihood	-659.881
Akaike Inf. Crit.	1,357.763

*p<0.1; **p<0.05; ***p<0.01
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious

E.2 Regression Model with Interaction Effects of Campaign Variables

In this section I present the models and estimates that were used in Figure 5.

Table 11: 2012: Binomial Logistic Regression of Vote for Favoured Candidate on Interaction between Predisposition Intensity and Issue Congruence

	Dependent variable:
	Vote for Favoured Candidate
Congruence (favoured)	1.950^{***}
	(0.480)
Congruence (disfavoured)	-0.930^{**}
	(0.465)
Predisposition intensity	7.062^{***}
	(1.877)
Congruence (favoured) $\times$ Predisposition intensity	-1.938
	(2.146)
Congruence (disfavoured) $\times$ Predisposition intensity	6.325^{***}
	(2.361)
Constant	-1.319^{**}
	(0.597)
Observations	3,528
Log Likelihood	-735.767
Akaike Inf. Crit.	1,513.533

*p<0.1; **p<0.05; ***p<0.01
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious

Table 12: 2016: Binomial Logistic Regression of Vote for Favoured Candidate on Interaction between Predisposition Intensity and Issue Congruence

	Dependent variable:
	Vote for Favoured Candidate
Congruence (favoured)	0.577
	(0.489)
Congruence (disfavoured)	−0.345
	(0.467)
Predisposition intensity	7.576***
	(1.606)
Congruence (favoured) × Predisposition intensity	0.378
	(1.908)
Congruence (disfavoured) × Predisposition intensity	−1.454
	(1.697)
Constant	−0.773
	(0.648)
Observations	2,651
Log Likelihood	-659.306
Akaike Inf. Crit.	1,360.612

*p<0.1; **p<0.05; ***p<0.01
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious

E.3 Regression Model with Heterogeneous Effects across Candidates

Table 13: 2012: Binomial Logistic Regression of Vote for Favoured Candidate on Interaction between Issue Congruence and Favoured Candidate Identity

	Dependent variable:
	Vote for Favoured Candidate
Romney	-2.204^{***}
	(0.595)
Congruence (favoured)	1.367^{**}
	(0.586)
Congruence (disfavoured)	0.122
	(0.525)
Predisposition intensity	8.498^{***}
	(0.509)
Romney × Congruence (favoured)	−0.198
	(0.694)
Romney × Congruence (disfavoured)	0.257
	(0.678)
Constant	−0.709
	(0.676)
Observations	3,528
Log Likelihood	-635.674
Akaike Inf. Crit.	1,315.347

*p<0.1; **p<0.05; ***p<0.01
Reference (favoured candidate identity): Obama
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious, time

Table 14: 2016: Binomial Logistic Regression of Vote for Favoured Candidate on Interaction between Issue Congruence and Favoured Candidate Identity

	Dependent variable:
	Vote for Favoured Candidate
Trump	-1.106^{**}
	(0.524)
Congruence (favoured)	0.243
	(0.392)
Congruence (disfavoured)	-1.391^{***}
	(0.539)
Predisposition intensity	7.504^{***}
	(0.467)
Trump × Congruence (favoured)	0.475
	(0.653)
Trump × Congruence (disfavoured)	1.245^{**}
	(0.632)
Constant	-0.315
	(0.643)
Observations	2,651
Log Likelihood	-654.543
Akaike Inf. Crit.	1,353.087

*p<0.1; **p<0.05; ***p<0.01
Reference (favoured candidate identity): Clinton
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious, time

Table 15: 2012: Binomial Logistic Regression of Vote for Favoured Candidate on Interaction between Issue Congruence, Predisposition Intensity and Favoured Candidate Identity

	Dependent variable:
	Vote for Favoured Candidate
Romney	-3.914^{***}
	(0.955)
Congruence (favoured)	0.847
	(0.901)
Congruence (disfavoured)	-1.275
	(0.802)
Predisposition intensity	1.153
	(3.066)
Congruence (favoured) $\times$ Predisposition intensity	3.976
	(3.780)
Romney $\times$ Congruence (favoured)	1.214
	(1.120)
Romney $\times$ Predisposition intensity	9.310^{**}
	(4.064)
Congruence (disfavoured) $\times$ Predisposition intensity	7.762^{*}
	(3.975)
Romney $\times$ Congruence (disfavoured)	0.821
	(1.090)
Romney $\times$ Congruence (favoured) $\times$ Predisposition intensity	-8.179^{*}
	(4.720)
Romney $\times$ Congruence (disfavoured) $\times$ Predisposition intensity	-1.751
	(5.281)
Constant	0.627
	(0.911)
Observations	3,528
Log Likelihood	-623.491
Akaike Inf. Crit.	1,302.982

*p<0.1; **p<0.05; ***p<0.01
Reference (favoured candidate identity): Obama
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious, time

Table 16: 2016: Binomial Logistic Regression of Vote for Favoured Candidate on Interaction between Issue Congruence, Predisposition Intensity and Favoured Candidate Identity

	Dependent variable:
	Vote for Favoured Candidate
Trump	-2.204^{**}
	(0.875)
Congruence (favoured)	-0.274
	(0.628)
Congruence (disfavoured)	-0.858
	(0.862)
Predisposition intensity	6.373^{***}
	(2.325)
Congruence (favoured) $\times$ Predisposition intensity	2.576
	(2.508)
Trump $\times$ Congruence (favoured)	2.107^{*}
	(1.080)
Trump $\times$ Predisposition intensity	5.361
	(3.443)
Congruence (disfavoured) $\times$ Predisposition intensity	-2.763
	(3.542)
Trump $\times$ Congruence (disfavoured)	1.416
	(1.054)
Trump $\times$ Congruence (favoured) $\times$ Predisposition intensity	-7.938^{*}
	(4.218)
Trump $\times$ Congruence (disfavoured) $\times$ Predisposition intensity	-0.229
	(4.069)
Constant	-0.084
	(0.783)
Observations	2,651
Log Likelihood	-651.550
Akaike Inf. Crit.	1,359.100

*p<0.1; **p<0.05; ***p<0.01
Reference (favoured candidate identity): Clinton
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious, time

Figure 16: 2016: Average Predicted Probability of Voting for Favoured Candidate Conditional on Congruence with Disfavoured Candidate and Identity of the Favoured Candidate

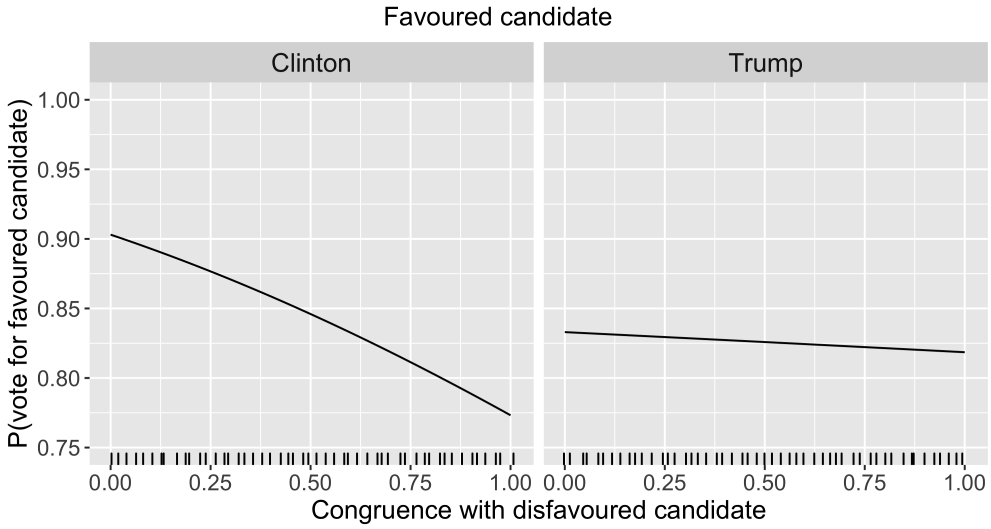


Figure 17: 2012: Average Predicted Probability of Voting for Favoured Candidate Conditional on Congruence with Favoured Candidate, Predisposition Intensity and Identity of the Favoured Candidate

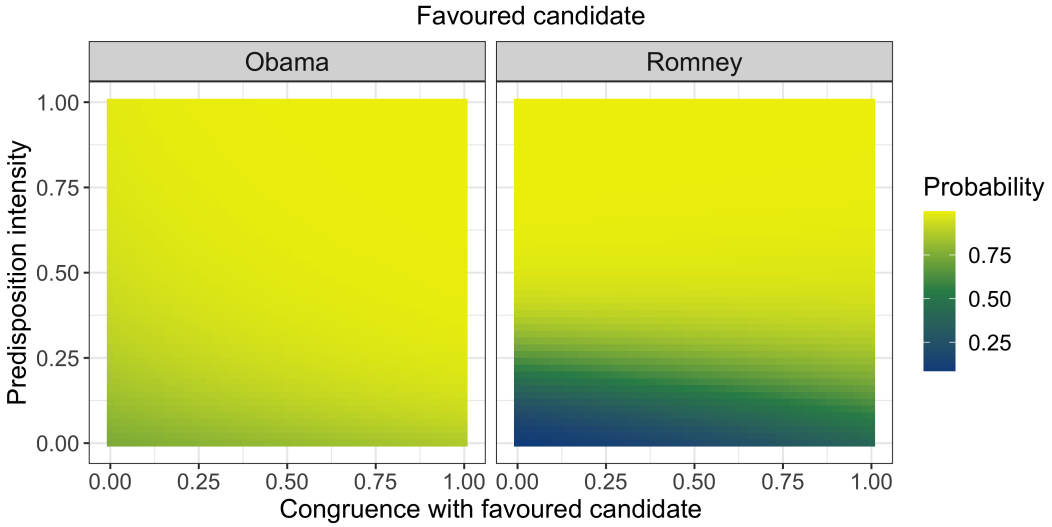
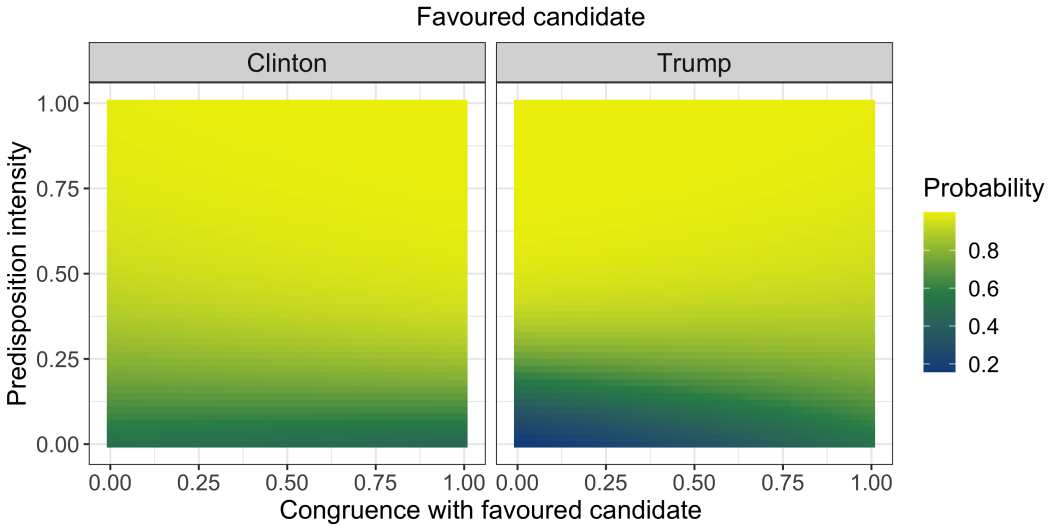


Figure 18: 2016: Average Predicted Probability of Voting for Favoured Candidate Conditional on Congruence with Favoured Candidate, Predisposition Intensity and Identity of the Favoured Candidate



F Multinomial Logistic Regression: Regression Tables and Predicted Probability Plots

Table 17: 2012: Multinomial Logistic Regression of Vote for Favoured Candidate on Predisposition Intensity and Issue Congruence

	Dependent variable:	
	Vote = favoured	Vote = other
Intercept	-1.681***	-3.066***
	(0.604)	(1.021)
Congruence (favoured)	2.075***	1.579***
	(0.360)	(0.575)
Congruence (disfavoured)	-0.336	-1.111**
	(0.346)	(0.557)
Predisposition intensity	10.097***	4.549***
	(0.712)	(0.911)

*p<0.1; **p<0.05; ***p<0.01
Reference: Vote = disfavoured
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious

Table 18: 2016: Multinomial Logistic Regression of Vote for Favoured Candidate on Predisposition Intensity and Issue Congruence

	Dependent variable:	
	Vote = favoured	Vote = other
Intercept	-0.339	-0.629
	(0.825)	(0.962)
Congruence (favoured)	0.875**	0.413
	(0.420)	(0.483)
Congruence (disfavoured)	-0.621	0.093
	(0.399)	(0.459)
Predisposition intensity	9.085***	2.511***
	(0.787)	(0.881)

*p<0.1; **p<0.05; ***p<0.01
Reference: Vote = disfavoured
Controls: college, age, married, employed, union member, latinx, region, white, mortgage, above median income, not immigrant, female, religious

Figure 19: Average Predicted Probability of Voting for the Favoured Candidate Conditional on Congruence with Favoured Candidate and Congruence with Disfavoured Candidate (Using Estimates from Multinomial Logistic Regression)

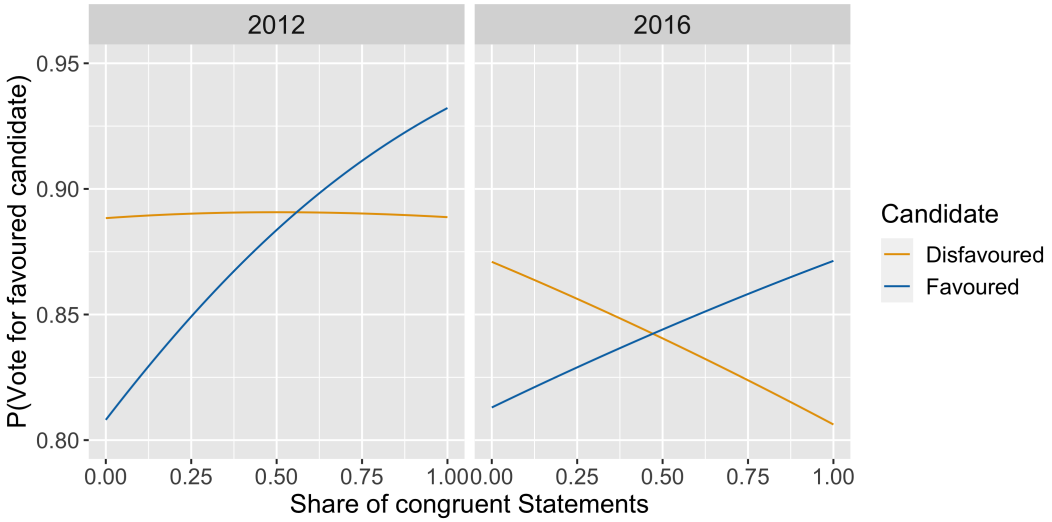
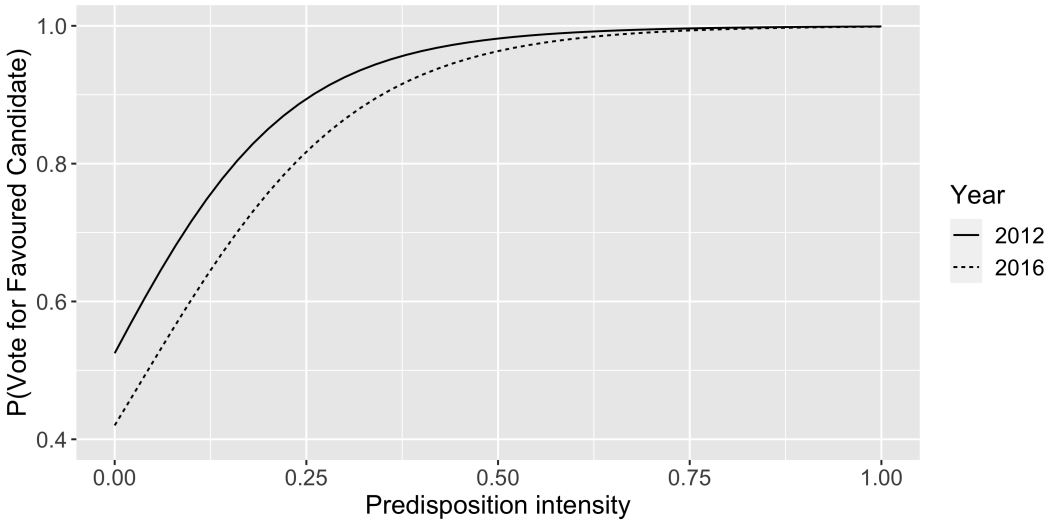


Figure 20: Average Predicted Probability of Voting for the Favoured Candidate Conditional on Predisposition Intensity (Using Estimates from Multinomial Logistic Regression)



G Model Fit

Table 19: 2012: Confusion Matrix Statistics

Accuracy	0.9359
95% CI	[0.9274, 0.9438]
No Information Rate	0.909
P-Value [Acc > NIR]	0.000
Kappa	0.5406
Sensitivity	0.47
Specificity	0.98
Pos Pred Value	0.73
Neg Pred Value	0.95
Precision	0.73
Recall	0.47
F1	0.57
Prevalence	0.09
Detection Rate	0.04
Detection Prevalence	0.06
Balanced Accuracy	0.73

To calculate the gain in accuracy when using the campaign model, I take the proportion of votes that were correctly predicted as votes for the disfavoured candidate: $152/3528 = 0.043$.

Table 20: 2012: Confusion Matrix

	Reference		
Predicted	Disfavoured	Favoured	Sum
Disfavoured	152	57	209
Favoured	169	3150	3319
Sum	321	3207	3528

Table 21: 2016: Confusion Matrix Statistics

Accuracy	0.8876
95% CI	[0.8749, 0.8994]
No Information Rate	0.8793
P-Value [Acc > NIR]	0.099
Kappa	0.3317
Sensitivity	0.29
Specificity	0.97
Pos Pred Value	0.57
Neg Pred Value	0.91
Precision	0.57
Recall	0.29
F1	0.39
Prevalence	0.12
Detection Rate	0.04
Detection Prevalence	0.06
Balanced Accuracy	0.63

To calculate the gain in accuracy when using the campaign model, I take the proportion of votes that were correctly predicted as votes for the disfavoured candidate: $94/2651 = 0.035$

Table 22: 2016: Confusion Matrix

	Reference		
Predicted	Disfavoured	Favoured	Sum
Disfavoured	94	72	166
Favoured	226	2259	2485
Sum	320	2331	2651

H Activation: Predicted Probability Tables and Contingency Tables

In this section, I include the predicted probability tables and contingency tables that were used to estimate the proportion of voters whose predispositions were activated by the campaign in 2012 and 2016. In order to create appropriate counterfactuals for the share of voters who voted for their favoured candidate under each scenario, I use average predicted probabilities. To be clear, I compute the predicted probability of voting for the favoured candidate for each respondent in the sample and each share of congruent statements (for the minority category, from 0% to .49% congruent statements, and for the majority category, from 51% to 100% congruent statements), and then I take the average. Since the predicted probabilities in each cell of the two-by-two table of scenarios are computed with the same set of respondents, all the control variables in the model are held constant, and only the prevalence of congruent statements

vary. To estimate the overall proportion of voters who were activated in the sample, I use contingency tables. The complete set of steps used to estimate the share of activated voters are presented after the tables.

Table 23: 2012: Contingency Table of the Prevalence of Congruent Statements with the Favoured Candidate by the Prevalence of Congruent Statements with the Disfavoured Candidate

Favoured	Disfavoured		Sum
	Minority	Majority	
Minority	617	292	909
Majority	2155	464	2619
Sum	2772	756	3528

*Chi-square test of independence: $p<0.01$

Table 24: 2012: Average Predicted Probability of voting for the Favoured Candidate Conditional on the Prevalence of Congruent Statements with the Favoured Candidate and the Prevalence of Congruent Statements with the Disfavoured Candidate

Favoured	Disfavoured	
	Minority	Majority
Minority	.87	.88
Majority	.92	.93

Table 25: 2016: Contingency Table of the Prevalence of Congruent Statements with the Favoured Candidate by the Prevalence of Congruent Statements with the Disfavoured Candidate

Favoured	Disfavoured		Sum
	Minority	Majority	
Minority	322	206	529
Majority	1836	287	2123
Sum	2158	493	2651

*Chi-square test of independence: $p<0.01$

Table 26: 2016: Average Predicted Probability of voting for the Favoured Candidate Conditional on the Prevalence of Congruent Statements with the Favoured Candidate and the Prevalence of Congruent Statements with the Disfavoured Candidate

Favoured	Disfavoured	
	Minority	Majority
Minority	.86	.83
Majority	.89	.86

Below are the steps I did to estimate the share of voters who voted for the favoured candidate in 2012 due to campaign information on the issue positions of the candidates:

1. Share who voted for favoured candidate under the worst scenario: .88
2. Share who voted for favoured candidate under best scenario: .92
3. Share of voters who voted for the favoured candidate who were activated by the campaign = .92 - .88 = .04
4. Overall share of activated voters = .04 $\times$ 2155/3528 =.02

In 2016:

1. Share who voted for favoured candidate under the worst scenario: .83
2. Share who voted for favoured candidate under best scenario: .89
3. Share of voters who voted for the favoured candidate who were activated by the campaign = .89 - .83 = .06
4. Overall share of activated voters = .06 $\times$ 1836/2651 = .04

We can repeat the same steps for the voters in the residual categories; those who had only one reason to vote for the favoured candidate (either a *majority* of the *favoured* candidate's statements that were congruent or a *minority* of the *disfavoured* candidate's statements that were congruent). That brings the total share of voters who were activated by the campaign to 3%. In 2016, adding these voters brings the total share of activated voters to 5%.