

Accountability in Congress, the Constituent's Perspective*

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Abstract

In an era of strong partisanship, do constituents hold their representatives accountable for specific policy positions? We turn to survey data during 2006 - 2017 that directly asked respondent's beliefs about how their representatives voted in Congress. We construct an instrument for such beliefs using actual roll call votes, and estimate the effect of a constituent's perceived issue agreement and perceived party agreement on their support for their Member of Congress. Evidence from observational, instrumental variable, and experimental approaches suggests that issue agreement is a substantial force in electoral accountability. Moving from complete perceived disagreement to complete perceived agreement on issues with one's incumbent U.S. House member is associated with a 15 - 18 percentage point increase in approval and 17 - 22 percentage point increase in intent to vote for that incumbent. These effects are about half the size of the effect of moving from an out-partisan to a co-partisan.

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Do voters hold their representatives accountable for legislative decisions on important issues of the day, rewarding at the polls legislators who vote the right way on bills before Congress, and punish those who do not? This classic question famously formulated by Warren Miller and Donald Stokes in *Constituency Influence in Congress* (1963) has formed the basis of much inquiry on democratic accountability. But until the mid-2000s, relatively little research examined what individual voters know about their representative's roll call voting behavior, and whether legislators roll call votes actually inform voters' electoral decisions. Analyses of the first Cooperative Congressional Election Surveys found clear evidence of issue awareness and issue voting in congressional elections (Ansolabehere and Jones 2010). This paper extends the general framework in that study. In doing so, we cover the decade from 2005 to 2017, a time of both intense party polarization in Congress and dramatic swings in control of government. In an era of polarization, are congressional elections only about allegiance to party, or are they about issues — the substance of legislation — as well?

The subtlety in answering this question is that it concerns how voters act based on *what they know*. There are two steps to accountability. The first step is perception formation. People have a belief or perception about what party their representatives are with and how their representatives do or would vote on issues. Are those beliefs a reflection of the actual issue positions of representatives? The partisan theory of representation holds that voters' perceptions about the legislation that their representatives support are a reflection of their beliefs about the representative's party more than it is about their actual roll call voting behavior. The policy representation theory holds that the opposite is the case. When a representative votes to enact the Affordable Care Act or to repeal the Affordable Care Act, or votes to support President Obama's Tax Plan or to support President Trump's Tax Plan, she is sending a signal about her policy positions. The policy representation theory asserts that these signals may be noisy but they get through to the electorate.

The second step is evaluation. How does the picture in people's heads about representatives' legislative decisions and representatives' party alignments translate into evaluations of their members of Congress and their electoral decisions? According to the partisan theory

of representation, perceived party of representatives dominates how people evaluate their legislators. Issue agreement or ideology matter far less if at all. According to the policy representation theory, people are presented with a choice that is rooted in actual policy decisions or promises about future policy decisions, and they favor candidates and parties that most closely align with their preferences.

We scrutinize these two steps — perception and evaluation — with a series of surveys that directly ask voters their perceptions of their representative’s position on specific issues. We do so not only to explore how citizens hold their legislators accountable, but also to understand the current dynamics of modern US Congressional elections. The decade of Congressional voting from 2006 to 2017 saw deep partisan polarization in Congress. During this time, control of the Congress and White House, and thus the political agenda of the country, have changed with nearly every election. Polarization is representational failure. Extreme partisan behavior in the electorate gives candidates and parties little opportunity to steer a middle course, and efforts to legislate across the aisle, which were common in the 1970s and 1980s, may be met with a sanction from voters upset that their representative did not stick with the team.

In the next two sections of the paper, we outline how our approach fills a key piece in understanding accountability and describe the decade of legislation and the key votes studied. Our analyses consists of testing the two aforementioned steps. First, we examine the correlates of voter’s perceptions. Having shown that voter’s perceived agreement mirrors actual agreement, we estimate the effect of perceived issue agreement and partisan agreement on approval and electoral support for representatives. We offer mainly three varieties of estimates: simple differences in means, a regression controlling for other factors that likely shape approval and vote, by using legislator’s actual party and actual roll call voting behavior as instrumental variables for constituents’ perceptions of them. Finally, we supplement our causal claims based on observational analysis with a parallel 2009 survey experiment that directly manipulates available information.

1 Issues, Parties, and the Role of Perception in Accountability

Political scientists have long held a nagging doubt about the traditional view of how accountability functions (Fearon 1999). In that view, politicians vote for policies that their constituents want, and, come election time, the public will look at what their representatives have done and decide whether to keep their incumbents or to go in a new direction. But if the public is not aware of the legislative decisions of their members of Congress or does not care about issues in making electoral decisions, then policy representation breaks down. Some degree of issue awareness and issue voting, then, is crucial to making policy representation work. The policy representation theory rests on an assumption that enough voters are attentive to law-making so as to hold legislators accountable during elections.

Much of the empirical work on the congruence between legislative behavior and constituency interests operate on a model of accountability that invokes this assumption (Bafumi and Herron 2010; Lax and Phillips 2012; Fowler and Hall 2016; Caughey and Warshaw 2018). Does that assumption really hold true at the individual level? Such a level of knowledge seems implausible to many pollsters and political sociologists, among whom Walter Lippmann’s pessimistic view of the American public has deep roots. That is a world in which very few people are aware of whether or not their legislator represents them well or poorly in the legislature and largely doesn’t care about issues when voting for their member of Congress.

Drawing on survey evidence in the 1950s, Miller and Stokes (1963) concluded that citizens in fact pay little attention to how their legislators vote on issues when evaluating their legislators, and follow the party labels in choosing which legislators they support. And these findings fit into a broader picture emerging from survey research at that time (Campbell et al. 1960; Converse 1964). An individual’s party identifications, in this partisan theory of representation, arise out of habits, social pressure, and parenting; party identifications shape the way people see and respond to politics, and they have little to do with the interests of the voters and the issues Congress confronted.

In the decades following Miller and Stokes’ study, scholars of Congress embraced a very different theory of elections and representation. The theory of policy representation holds

that legislators serve as the agents of the people, and are voted out or retained based on their congruence with their constituent's views. That view of representation, as opposed to partisanship, has dominated theorizing and empirical research on the American legislatures for the past 50 years. It is the central idea behind the seminal works on Congress and representation, such as David Mayhew's *Congress: The Electoral Connection* (1974) and Richard Fenno's *Home Style* (2003). A long line of empirical research has examined the degree to which election outcomes respond to the legislative decisions of members of Congress, either on specific roll call votes or sums of roll call votes such as ideology scores (Erikson and Wright 1980; Poole and Rosenthal 1984; Canes-Wrone, Brady, and Cogan 2002; Erikson, Wright, and McIver 1993).

American politics, however, seems to have come full circle. Today, Congress is deeply divided along party lines. Among the voters, straight ticket voting has risen and the incumbency advantage has plummeted (Jacobson 2015), with various forms of political behavior increasingly falling along partisan affiliation (Bartels 2000; Fiorina and Abrams 2008). Congress and the electorate increasingly resemble their historical counterparts in the 1940s and 1950s, more than the era of the 1970s and 1980s, when the policy representation theory took hold. And, behavioral researchers today increasingly register the echo of the partisan theory. Green, Palmquist, and Schickler (2004) describe parties as teams, and voters as choosing which team they support, sometimes with little grounding in the realities of what one party or the other accomplishes in office. Lenz (2012) shows through a series of survey analyses and experiments that people today view facts through partisan lenses, agreeing with facts that fit their party's world view and either ignoring facts that do not fit their partisan predisposition or bending them to fit. Such severe partisan biases in the electorate give rise to political polarization in which legislators find there is little room to reach a middle ground (Campbell 2016).

While parties may serve as teams, issues have been at the core of the conceptualization of accountability, and evidence suggests the American public is still attentive to agreement on the issues (Ahler and Broockman 2018). With the resurgence of party polarization, the

relative weight issue preferences and partisanship hold in shaping electoral behavior has become one of the central dichotomies in the current study of political representation. These studies leverage multifaceted descriptions of hypothetical candidates (Peterson 2017; Fowler 2018; Mummolo, Peterson, and Westwood 2018), exogenous changes in representative’s policy positions (Bullock 2011; Broockman and Butler 2017), and the different implications of voter’s confidence in their preferences (Gerber et al. 2011). What sets our current study apart from this accumulating body of work is the focus on constituent’s *perceptions* about the positions their actual representative takes, shown earlier by Ansolabehere and Jones (2010).¹ Voters’ beliefs and information on their political attitudes are known to be widely important in their behavior (Gilens 2001; Gerber and Green 1999; Sood and Iyengar 2018). In a sense similar to studies of representatives that have focused on *their* perception of the position of their constituents (Broockman and Skovoron 2018), our analysis starts by asking how constituents perceive the position and partisanship of their representatives. The data we introduce in the subsequent were designed to address this question.

2 Data and Methods

We use eleven years of the Cooperative Congressional Election Study (CCES), a series of annual online surveys that was launched in 2006 with the purpose to study party and policy representation of Congress (<https://cces.gov.harvard.edu/>). These two competing views of representation in Congress were built into the study throughout, as the survey from its inception sought to measure how people understood their representatives’ issues and ideological orientations as well as their party alignments.

On issues, each year’s CCES asks how respondents would vote on a set of key votes, from the set of key votes identified by *Congressional Quarterly* or the *Washington Post Key Vote* projects. A subset of the CCES answers another set of questions (modules) designed by the Harvard CCES team that measure respondents’ beliefs about how their Representatives and Senators voted on a handful of key votes (Table 1). These questions, and the respon-

¹ For studies that build from this framework based on the same data, see Dancey and Sheagley (2016) and Donnelly (2018).

dents who answered these questions, serve as the crux of the subsequent analyses. On party representation, the CCES asks all respondents (in the Common Content) their own party identification and from what party they think their representative is (Kuriwaki 2018). In addition, the Common Content asks respondents their own ideological orientations and the perceived ideologies of the parties and their representatives.

We first provide an overview of the issue questions asked on the CCES, in other words, the Congressional agenda over the past twelve years. Having set the context, in section 2.2 we describe how we operationalize our variables of interest with these responses, and in section 2.3 we outline our key quantities of interest and the identification strategies to estimate them.

Table 1 – Survey data sources. Each year’s survey sample is drawn from a part of the year’s CCES.

	Year	Dataset	CDs	Observations
1	2006	CCES 2006 Harvard Module	291	1,013
2	2007	CCES 2007 Common Content	437	10,000
3	2008	CCES 2008 Harvard Module	426	3,000
4	2009	CCES 2009 Harvard Module	433	6,000
5	2010	CCES 2010 Harvard Module	434	3,000
6	2012	CCES 2012 Wave of 2010-2014 Panel	436	19,500
7	2013	CCES 2013 Harvard Module	412	1,500
8	2014	CCES 2014 Harvard Module	412	1,500
9	2015	CCES 2015 Harvard Module	387	1,000
10	2016	CCES 2016 Harvard Module	436	3,000
11	2017	CCES 2017 Harvard Module	390	1,000

2.1 The Agenda

The dramatic swings in political control of the national US government have meant that in a twelve year span we have seen unified Republican control, unified Democratic control, divided control with a Republican President and a Democratic Congress, and divided control with a Democratic President and a Republican Congress. In 2005 and 2006, Republicans controlled Congress and the Presidency. Democrats gained control of Congress for the last two years of the Bush administration, in 2007 and 2008. Obama’s first election brought in unified Democratic control of government. But that ended in the 2010 elections, when Republicans gained control of the House of Representatives. Divided control of government

with a Democratic President and a Republican Congress persisted until the 2016 election, when President Trump was elected along with a Republican majority in the House and Senate.

The legislative agenda reflected those changes (Cox and McCubbins 2005; Sulkin 2005). We have observed the passage of a comprehensive health care law, the Affordable Care Act, and attempts by succeeding Congresses to repeal that law. We have seen passage of comprehensive legislation to regulate the financial and investment industries, and attempts by succeeding Congresses to repeal that law. We have seen pro-immigration legislation and anti-immigration legislation, trade legislation, budget deals, tax acts, education reforms enacted and education reforms repealed, new civil rights legislation for LGB members of the military and proposed bans on gay marriage, restrictions on gun ownership and expansions of concealed weapons permits. The list goes on. This is just a sampling of the range of questions before Congress over the past decade. The changes in political control of Congress and the White House have meant that Congress has looked at these issues from very different sides of these questions: higher taxes or lower taxes, expand immigration or restrict it, expand health care provision or cut it, regulate or deregulate.

The CCES covers a wide range of issues in each of these sessions. Exhibit 1 lists all of the issues on the CCES on which there were corresponding bills in the US House or Senate in the two years of each Congress from the 109th to the 115th. In bold are the issues on which the Harvard CCES modules asked respondents how they thought their legislators voted. Exhibit 1 also indicates how the House and Senate decided the issue. If a table indicates that the House voted “Y” (for passage) and the Senate voted “Y”, then Congress passed the legislation through both chambers. The notation “(nv)” (no vote) means that the chamber did not take a vote, effectively killing the legislation. It is worth noting that in the first three Congresses under study, both the House and the Senate usually took up the key legislation. But, in the later Congresses — the 112th, 113th, 114th and 115th — legislation would often pass one chamber and die in the other due to inaction.

2.2 Operationalization of Key Variables

Our key measures of perceived agreement are built from the responses to the perception questions in the CCES Module, combined with their own stances to the same issues. An example of such perception questions from 2017 is reproduced in Exhibit 2. The key part of this type of question is a perception question that asks:

“Do you think [Representative Name] voted for or against a bill To Repeal Obamacare?”

- For
- Against
- Not Sure

where the name is filled in by the respondent’s own representative imputed from their zip code. Thus in these questions, respondents state, to the best of their knowledge, the positions their own representatives took on key issues of the day. We also construct instruments for our measure of perceived agreement by collecting matching roll call vote data from the Voteview database (<https://voteview.com/>).

To facilitate the interpretability of regression coefficients, we encode all of variables on a -1 to +1 scale. Table 2 presents summary statistics, and a description of each of the variables follows. Throughout, we limit our attention to the House.

Perceived Issue Agreement is a respondent-level average of several perceived agreement on specific issues. For each issue, the value is a +1 if the respondent’s self-stated opinion (asked earlier) and his *perception* of his representative’s vote are the same, -1 if they are explicitly different, and 0 if either he does not provide a clear guess on their perception of the representative *or* they themselves do not submit a response to that issue. Then, after agreement values are computed for each issue asked, they are averaged within respondent.

Perceived Party Agreement is +1 if the respondent has identified herself as a Republican (Democrat) and also reports perceiving her representative as a Republican (Democrat). It is -1 if she identifies as a Republican but perceives her representative as a Democrat, or vice versa. It is 0 if either she is not sure of the party of her representative *or* they identify as an Independent (on the first question).

Table 2 – Summary Statistics for Key Variables. Each row presents summary statistics for a key variable used in the analysis.

(a) Predictor Variables and their Instruments						
	Min.	Mean	Median	Max.	Std. Dev.	Observations
Perceived issue agreement	-1	0.108	0.33	1	0.675	45,642
Perceived party agreement	-1	0.114	0.00	1	0.716	44,803
Perceived ideological agreement	-1	0.382	0.38	1	0.521	50,513
Actual issue agreement	-1	0.049	0.00	1	0.615	45,655
Actual party agreement	-1	0.120	0.00	1	0.789	44,921
Actual ideological agreement	-1	0.056	0.00	1	0.271	44,761

(b) Outcome Variables						
	Min.	Mean	Median	Max.	Std. Dev.	Observations
Job Approval	-1	0.062	0.00	1	0.686	45,051
Pre-election vote intent for incumbent	-1	0.220	0.00	1	0.853	24,525

Actual Issue Agreement is the counterpart to perceived issue agreement, but the respondents’ perceptions are replaced with their representative’s actual roll call votes. For each question, we identified the roll call vote in the House that corresponded to the issue being asked, and matched the representative’s Yay or Nay vote. If no vote was held on the issue, we drop the issue entirely from the analysis.

Actual Party Agreement is the counterpart to perceived party agreement, but the respondents’ perceptions of their representative’s party are replaced with their representative’s actual party affiliation.

Actual Ideological Agreement is measured by proxy, because ideology is itself a conceptual quantity for which there is no single measurement. Respondent’s ideology is taken from a 7-point likert scale, in which they are asked to place themselves on a scale from “Very Liberal” to “Very Conservative”. These are coded numerically to range from -1 to 1². The same question asks respondents to place their representative on the same scale, which we code the same way and label *perceived ideology* (but do not use in estimation, for reasons we describe later). For the representative’s actual ideology, we use their first dimension DW-NOMINATE score as an approximation. Agreement is then the product of these two variables. Because NOMINATE scores in a given Congress lie between around -1 (Democrats) and +1 (Republicans), their product also ranges from -1 to +1.

² “Very Liberal / Conservative” = ± 1 , “Liberal / Conservative” = $\pm \frac{2}{3}$, “Somewhat Liberal / Conservative” = $\pm \frac{1}{3}$, and “Middle of the Road / Not Sure” = 0

Approval of the current representative ranges is asked of all respondents towards the beginning of the survey on a 5-point likert scale from “Strongly Disapprove” to “Strongly Approve”. We code these on a -1 to +1 scale with equal intervals³.

Voting for Incumbent is asked in even-numbered years and is recorded for districts in which a incumbent enters the General Election race. The CCES asks respondents who they intend to vote for in the upcoming General election survey. The value is +1 if the respondent reports intending to vote for the candidate who happens to be the incumbent, -1 if he reports favoring the opponent, and 0 if he does not plan to vote or is not sure. Candidates are presented by their name and party. If an incumbent is not running in his district, the observation is dropped.

In addition to summary statistics of each variable, we may also be interested in the correlation between them. In Appendix Figure A2 we present the pairwise correlations between each of the independent variables. As expected, all types of perceptual agreement are positively correlated. Perceived issue agreement and perceived party agreement are correlated at about 0.40, raising concerns for collinearity. However, perceived and actual issue agreement are especially highly correlated at about 0.80. This provides analytical leverage for our instrumental variable approach, to which we now turn.

2.3 Identification

With our operationalized variables, we can now express the causal mechanisms and the quantities of interest. We illustrate the full extent of our model in graph form in Figure 1. More specifically, the main quantity of interest can be expressed as part of the following regression model:

$$Y_j = \alpha + \beta_I A_{Ij} + \beta_P A_{Pj} + \phi_\theta Z_{\theta j} + \gamma X_j + \varepsilon_j \quad (1)$$

Here β_I, β_P are the key parameters of interest we wish to estimate. Generally the random

³ That is, “Strongly Approve / Disapprove” = ± 1 , “Approve / Somewhat Approve” = $\frac{1}{2}$, ‘Disapprove / Somewhat Disapprove’ = $\frac{1}{2}$, ‘Never Heard Of Person / Not Sure’ = 0. Some years varied in whether the middle category was labeled “somewhat”.

variable A_j stands for the *perceived agreement* that individual j reports for her representative. As discussed, three different types of perceived agreement are of interest: on issues (which we label I), party (which we label P), and ideology (which we label θ). Next, the random variable Z_j stands for the *actual agreement* for individual j , and, mirroring perceived agreement, there exist three types: Z_{Ij} , Z_{Pj} , and $Z_{\theta j}$. x_j stands for additional controls and ε_j an error term. Y_j is the evaluation outcome of interest that in our case will be either approval of the incumbent or intent to vote for the incumbent (if the incumbent is running for re-election).

Equation (1) clarifies that we are interested in estimating the average effect of perceived issue agreement on the outcome β_I , controlling for perceived party agreement, and vice versa. A simple correlation of the outcome on perceived issue agreement A_{Ij} would suffer from a confounder, namely perceived party agreement. Perceived party of the representative may either influence a voter’s perception of a politician’s votes or even their own preferences through partisan projection (Koch 2001; Bolsen, Druckman, and Lomax 2014). By formulating our quantity of interest as β_I , we are not assuming away partisan projection. Instead, we are aiming to estimate the independent contribution of perceived issue agreement, holding perceived party agreement constant.

While it is also possible to measure the perceived agreement on ideology ($A_{\theta j}$) as well, we do not include it in this regression model. The effect of general ideology is not our focus in this paper, and including it in the regression can lead to post-treatment bias: Perceived ideology is likely endogenous to both perceived issue voting and perceived party. Using the same CCES data in 2010, Nyhan et al. (2012) for example argue that salient roll call votes on the Affordable Care Act changed voter’s vote choice probably via their updating of perceived ideology of the representative. However, ignoring ideology completely would raise concerns for omitted variable bias. Estimation should account for generalized ideological agreement net any ideological positions captured by key votes, because our survey questions may not capture all considerations related to policy and party. In addition, in years in which the number of questions asked on perceived policy voting are sparse, a measure of ideological agreement serves to complement that omitted variable. Therefore, we include $Z_{\theta j}$ ($A_{\theta j}$ ’s

instrument), which can capture variation that issues or parties cannot capture while avoiding post-treatment bias in our key coefficients of interest, β_I, β_P . We use the letter ρ instead of β for the coefficient on $Z_{\theta j}$, to distinguish it conceptually from our variable of interest.

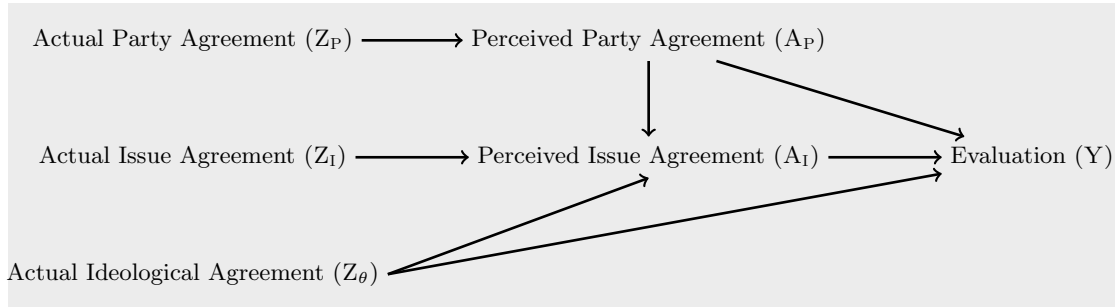
We first estimate equation (1) by OLS regression. Then we also estimate instrumental variables model by two stage least squares (TSLS) to account for further concerns of simultaneity bias. Our main IV specification is defined in equation (2):

$$\left\{ \begin{array}{ll} \text{Reduced Form:} & Y_j = \alpha_0 + \rho_1 Z_{Ij} + \gamma_0 \tilde{X}_j + \varepsilon_{0j} \\ \text{First Stage:} & A_{Ij} = \alpha_1 + \phi_1 Z_{Ij} + \gamma_1 \tilde{X}_j + \varepsilon_{1j} \\ \text{TSLS Second Stage:} & Y_j = \alpha_2 + \beta_1^{\text{TSLS}} \hat{A}_{Ij} + \gamma_2 \tilde{X}_j + \varepsilon_{2j} \end{array} \right. \quad (2)$$

Here the variable β_1^{TSLS} in the second stage is the key parameter of interest, and is estimated from the reduced form leveraging the variation induced in the first stage, that is $\hat{\beta}_1^{\text{TSLS}} = \hat{\rho}_1 / \hat{\phi}_1$. The difference between the IV specification and the OLS equation is that we instrument for A_{Ij} with its counterpart, Z_{Ij} . \hat{A} denotes the predicted value of the agreement based on the first stage. Here we instrument for only one of the perception variables, and relegate the remaining variables as included controls, i.e. $\tilde{X} = [X \ A_P \ Z_{\theta}]$.

By this specification, we are assuming that Z_{Ij} is ignorable given the other predictors in the model, and once the treatment A_{Ij} is fixed, the instrument Z_{Ij} does not affect the potential outcomes of Y_j . In words, the only way in which reality affects approval is through perception. We lay out the implementation and evidence consistent with these assumptions in more detail in the results. We can further instrument for A_{Pj} by A_{Pj} , an identification strategy we define graphically in Figure 1.

Figure 1 – Directed Acyclic Graph of Identification by Instrumental Variables. The DAG summarizes the instrumental variable approach to identification graphically. The effect of the set of control variables X are not shown for clarity.



3 Perception and Reality

Before examining the effects *of* voter’s beliefs, we must first ask how respondents form such beliefs about their representatives in the first place. One telling, common among advocates of the partisan theory of representation, is that people see everything through the lenses of party. They systematically miss the true picture about how their representatives voted on key votes, for instance, because they simply make a partisan guess about their representative.

We want to stress that the CCES data on roll call votes offer no support for this picture. Rather, it appears that people generally get a picture in their minds about their representatives’ roll call votes that reflects their actual roll call votes. This is not to say that the picture in any one person’s mind is clear or correct; we do not have reason to believe that Congressional roll call voting is perfectly communicated. But, on average, perception comes to reflect reality.

This is borne out in Table 3. Here we predict perceived issue agreement and perceived party agreement using actual issue agreement and actual party agreement. To isolate the contribution of reality to perception, we control for our measure of actual ideological agreement (correspondence between respondent’s 7-point ideology and representative’s NOMINATE score; see Section 2.2), a fixed effect for each year-state combination, and other control variables including ideology, party affiliation, being represented by a republican Member of

Table 3 – Reality predicts perception. Each column is a first stage OLS regression, with only the two main variables (instruments) and actual ideological agreement, shown. Control variables and year-state fixed effects not shown. Actual issue agreement predicts perceived issue agreement but not perceived party agreement, and actual party agreement perceived party agreement but not perceived issue agreement.

	Outcome: Perceived Issue Agreement	Outcome: Perceived Party Agreement
Actual issue agreement	0.95 (0.006)	0.02 (0.005)
Actual party agreement	0.05 (0.003)	0.64 (0.006)
Actual ideological agreement	0.24 (0.01)	0.29 (0.01)
Constant	0.06 (0.003)	0.03 (0.005)
Average of Outcome	0.11	0.11
Std. Dev. of Outcome	0.68	0.72
R-squared	0.83	0.63
F-statistic	6,850	4,274
Clusters	847	847
Observations	44,029	43,993

Clustered Standard Errors by Representative.

Congress.

The pattern in these regressions is striking. In predicting perceived issue agreement, the coefficient on actual issue agreement is 0.95 with a standard error of 0.006. That is nearly a 1-to-1 relationship between actual and perceived issue agreement. The coefficient on actual party agreement predicting perceived issue agreement is only 0.05 with a standard error of 0.003. While that coefficient on actual party agreement is statistically distinguishable from zero, the coefficient on actual *issue* agreement is 19 times larger. Voter’s views on whether they agree with their representatives on key issues is almost entirely driven by the interaction between the voter’s on views and the representative’s votes themselves, rather than projection based on party affiliation alone.

The pattern explaining perceived party agreement runs parallel to perceived issue agreement. In predicting perceived party agreement, the coefficient on actual party agreement is 0.64 with a standard error of 0.003. The coefficient on actual issue agreement is now only

0.02 in this regression, with a standard error of 0.004. In other words, people learn a little bit about the party of their representative from key votes, but beliefs about the party of the representative are driven by the actual party of the representative.

These variables combined with year-state fixed effects explain a large portion of the variance and paint a clear picture of how voters form perceptions. At least as far as issue positions and roll call votes are concerned, there is not a lot of distortion caused by partisan filters. The pictures in the electorates' minds about their degree of agreement with their representatives is a fairly accurate reflection of the actual degree of agreement between their interests and how their representatives vote. Even in a highly polarized and partisan era where representatives distinguish themselves from their party only by voting across party lines, they can do so — and the voters will listen.⁴

We are agnostic about the specific mechanism by which people get their beliefs. They may learn it through the campaigns or the news, through social media, or from conversations with friends or coworkers. On the one hand, a single roll call vote by a representative may seem like a negligible factoid in the political environment of Congress, not to mention the broader informational environment of voters. On the other hand, these votes are costly, concrete, well-documented actions that campaigns on either side may amplify, which hold more weight than campaign promises (Fortunato and Stevenson 2013). However they come to those beliefs, respondents evidently can distinguish which representatives agree with them on key issues and which do not. And their beliefs are strongly rooted in reality.

To characterize how reality gets communicated to people's perceptions, Table 4 shows regressions predicting a voter having the correct perception of votes on their representative's votes. Three findings are worth highlighting. First, high-interest voters are in fact more likely

⁴ One possible methodological objection to this finding is that respondents might have cheated. This is an online survey and they might have looked up the answers. Two pieces of evidence indicate that this is highly unlikely. First, some years of the CCES ask respondents at the end of the survey whether, during the survey, they took a break, read texts or emails, looked at websites, and so on. Only 4 percent said that they looked at other websites during the surveys. Second, the CCES measures the time respondents spend on each page of the survey. The page timings for the relevant roll call vote questions were approximately the same as the page timings for other issue questions. People were not taking an unusually long time to answer these questions, typically around 12 seconds, which is not long enough to conduct a web search for this specific information.

to form perceptions that match reality. Following the news, education, and income correlate highly with having a correct perception of the representative's vote choices. The strength of news following is the largest, where specifically a change in someone who reports following the news "some of the time" and "most of the time" is associated with a 17 percentage point increase in the net-margin of correct vs. incorrect perceptions. Second, this positive relationship does not appear to be explained away by a party-based heuristic either. Columns 2-4 of Table A4 apply the same regression but among the subset of voters who had the same perceived party of their representative correct, unsure, or incorrect. Even among people who already have the correct perception, following the news appears to make a difference. Third, the co-partisans are no more likely to be correct than out-partisans.

The results in Table 3 are important in its own right for our understanding of the policy and party theories of representation. The analyses reveal that Issue Agreement and Party Agreement are functionally two different avenues of accountability. They are important for another reason. It will serve as the first stage in our instrumental variables analysis in equation (2) to disentangle the potential simultaneity between people's attitudes toward their representatives manifested in expressions of support, and their perceived issue and party agreement. The reality of how a legislator votes in Congress or what party the legislator is a member of affects individuals only through the individuals' perceptions and beliefs about how they think their representative votes and the party they believe their representative is from. Table 3 reveals that reality can give us considerable leverage in understanding how people's perceptions affect their attitudes and choices.

Table 4 – Education, News Interest, and Income Predict the Likelihood of Correct Predictions. Regression models predicting the proportion of correct responses a respondent perceived. Correct Perceptions treated as 1s, incorrect ones as -1s, Don't Knows are treated as 0s. Predictor variables are re-scaled -1 to 1 for interpretability. The first column shows the full relationship. The next three columns show separate subsets based on their knowledge of their representative's party. Table A4 use indicator variables for each discrete level of education and news interest, and finds consistent results.

	Among those with Perception of Rep.'s Party			
	All Respondents	Correct	Don't Know	Incorrect
Follow the News (-1 to 1)	0.14 (0.007)	0.16 (0.01)	0.02 (0.009)	0.04 (0.02)
Education (-1 to 1)	0.06 (0.006)	0.05 (0.007)	0.01 (0.010)	0.01 (0.02)
Income (-1 to 1)	0.05 (0.007)	0.04 (0.009)	0.03 (0.01)	0.02 (0.03)
Actual party agreement	0.01 (0.005)	-0.00 (0.006)	0.01 (0.007)	0.02 (0.02)
Respondent is Republican	-0.02 (0.01)	-0.02 (0.01)	-0.00 (0.02)	-0.02 (0.04)
Respondent is Democrat	-0.00 (0.009)	0.01 (0.01)	-0.00 (0.01)	-0.04 (0.03)
Ideology (-1 to 1)	-0.02 (0.008)	-0.03 (0.01)	0.00 (0.01)	-0.01 (0.03)
Ideo = Moderate	-0.03 (0.007)	-0.03 (0.010)	0.00 (0.01)	-0.05 (0.03)
Age (-1 to 1)	0.09 (0.01)	0.05 (0.01)	0.01 (0.02)	0.08 (0.04)
Woman	-0.08 (0.008)	-0.07 (0.010)	-0.02 (0.01)	-0.05 (0.03)
Average of Outcome	0.26	0.40	0.06	0.09
Std. Dev. of Outcome	0.48	0.50	0.35	0.48
R-squared	0.12	0.100	0.022	0.036
Clusters	807	796	780	634
Observations	43,671	32,828	8,263	2,386

4 Approval and Vote

The test of issue accountability is whether the electorates' perceived agreement with the representative on issues leads them to form more favorable evaluations. We present our results in four stages. In section 4.1 we present differences in simple conditional averages of approval and vote intent, in section 4.2 we present OLS regression estimates controlling for more potential confounders, in section 4.3 we employ a instrumental variable (IV) regression to account for further omitted variable bias and the possibility of projection, and in section 4.4 we show results from a survey experiment among a subset of the respondents that directly manipulate the information of representatives provided to respondents.

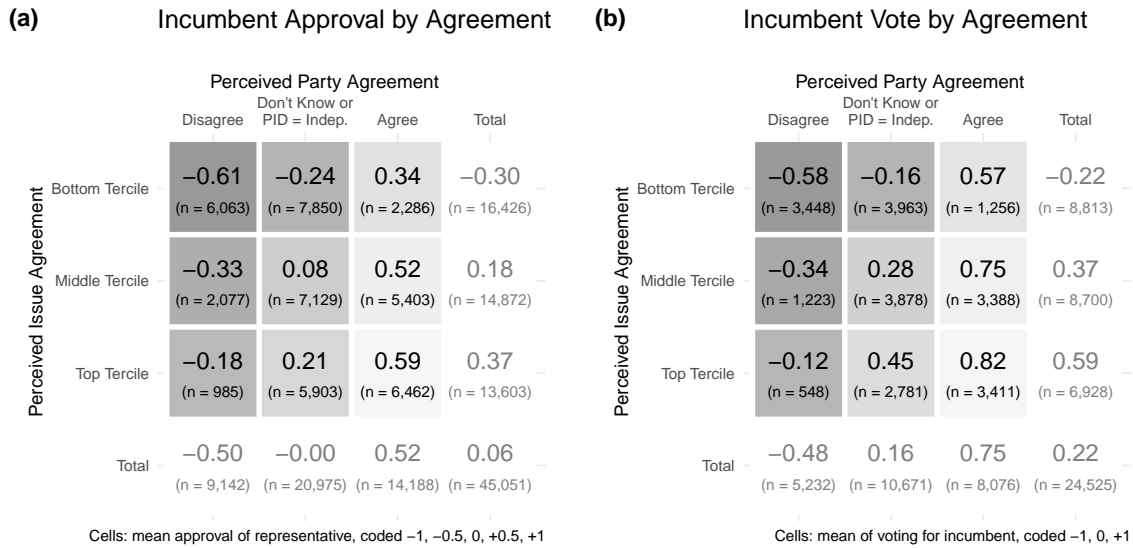
4.1 *Difference in Conditional Means*

We start to get a picture of policy representation and party representation comparing conditional means, presented in Figure 2. Here we examine how approval and electoral support vary with perceived policy agreement and perceived party agreement. In simple tabular form we can see immediately the effect of perceived policy agreement controlling for party agreement and the effect of perceived party agreement controlling for policy agreement. As we will see, the estimated effects here are quite close to the estimates we arrive at after controlling for other variables or estimating the average causal effects using instrumental variables.

Figure 2 shows averages for our two outcome variables: approval and vote. In each cell, we present the numeric version of these outcome variables (with sample sizes) for a particular partition of respondents. The respondents are divided in a three-by-three table using perceived party agreement and perceived issue agreement. The former is already a trichotomous variable. For comparability we trichotomize the latter by dividing the continuous variable into terciles. Each colored cell shows the average outcome in the partition, with the outer cells showing marginal averages.

Both of the outcome variables, approval and vote, are measured from a -1 to $+1$ scale as well. Incumbent vote, for instance, equals $+1$ if the respondent indicates that she voted for the Incumbent, 0 if she or he did not vote (or Undecided), and -1 if she voted for the

Figure 2 – Both perceived issue and perceived party agreement are associated with higher support. Panel (a) shows sample averages of voters’ approval for the representative (coded between -1 to +1), partitioning voters in a three-by-three category of perceived issue and party agreement. Cells are shaded by the average values of approval. Outer cells (gray text) show marginal averages. Panel (b) divides respondents in the same way but showing sample averages of vote intent for the incumbent (also coded between -1 to +1). In both panels, perceived issue and perceived party agreement are both predictive of high support. Even when a voter perceives their representative to be of opposing parties than their partisan identity, higher perceived issue agreement is associated with higher approval or vote intent.



Challenger. The mean value of this trichotomy equals the percent of respondents who voted for the Incumbent minus the percent of respondents who voted for the Challenger. It is, in other words, the electoral margin of the Incumbent. If the electoral margin is positive within a given subgroup, then the Incumbent received a higher percent of votes than the Challenger in that subgroup.

The Figure shows clearly that both perceived issues and perceived party matter for a representative’s success, even when controlling for the other. Consider panel (a). As expected, out-partisans disapprove of their own representative more than co-partisans, with independents and “don’t know’s” in the middle of the approval scale. However, issue agreement matters as well. Marginally, those in the bottom tercile of perceived issue agreement on average disapprove of their representative (average of -0.30), while the values increase steadily

moving up the distribution.

Inspecting the averages across marginals alone can be misleading because perceived issue agreement and perceived party agreement are clearly correlated (Figure A2). We can therefore examine whether approval changes by issue agreement when holding perceived party agreement constant. To do this, we simply read the colored cells column by column. In the left-most column, we see that among out-partisan respondents, perceived issue agreement still matters — approval improves from -0.61 to -0.33, then to -0.18 (an improvement of 0.43 in total). There is about the same amount of improvement in approval (-0.24 to 0.21 – about 0.45 points) among those whose party agreement is a 0, with a level shift. Finally, in the third column, we see that even among those who perceive themselves to be co-partisans, approval still increases considerably with issue agreement, despite at a smaller magnitude of about 0.25. The smaller magnitude is not surprising, given that these respondents are already co-partisans. The consistency of these differences is striking, and appear again when considering even-year vote intent in panel (b).

While simple differences in means are illuminating of the overall relationship we find, these do not account for any other confounding variations of the respondents placed in different cells. Not controlling for these variables may lead to biased estimation of our estimate of β_I , which we cast as a causal quantity. Therefore, we now turn to regression estimates in increasing degrees of complexity.

4.2 OLS Regressions

OLS regressions are presented, with all observations and by Congress, in Table A2. All regressions follow the specification in equation (1). Only the coefficient for our main treatment variables of interest and the instrument are shown for clarity, although each regression controls for various demographics and state-year fixed effects.⁵ Our main quantity of interest, the first

⁵ The individual level controls are respondent’s ideology, partisan identity, dummy variables for whether or not the respondent reports to be an ideological moderate or an independent, whether or not the respondent’s perception of their representative’s partisanship is correct, and the actual party of the representative. These controls mirror that of Ansolabehere and Jones (2010) as closely as possible. Further, we include fixed effects for each year-state combination, absorbing the effect of any factors that are homogeneous within each year-state.

coefficient in Table A2 shows that a one-point increase in perceived issue agreement (on a scale of -1 to +1) is associated with an increase in the respondent’s job approval by 0.18 points on a -1 to +1 point scale.

Turning to vote choice, and thus examining the CCES conducted in even years, we see a similar relationship. A one-point increase in perceived agreement is associated with an increase in the respondent’s likelihood of voting for that representative by about 0.24 points on a -1 to +1 scale. This corresponds to a 0.12 percentage point increase in vote intent as a binary variable. Movement across the full scale (from -1 to +1) of perceived issue agreement is therefore associated with a 0.24 percentage point increase.

Those estimates do vary over the different time periods. The estimated effect of issue agreement is especially high throughout the 109th to 111th Congresses, which correspond to the last Bush years and Obama’s first two years as President. The effect of issue agreement is strikingly small in the 113th and 114th Congresses, Obama’s second term. However, these small coefficients may simply be due to the fewer number of issues that Congress actively voted on during this time. In 2014, for example, only one issue relevant to the House was asked as a perception question (the Agriculture Bill), but this was a time when Congress was deadlocked over many issues. That year, the *Washington Post* only lists two key votes in the House.

Perceived party agreement and actual ideological agreement also correlate with voter’s evaluation of the incumbent. Perceived party agreement is generally somewhat short of double the size of issue agreement. Actual ideological agreement has a much larger coefficient. Some caution is warranted in interpreting these coefficients from multivariate regressions given that the regressors are positively correlated with each other (Figure A2). Such collinearity may over-estimate or under-estimate the size of these coefficients. Table A1 shows our main findings again, but estimating the coefficients with only one or two independent variables at a time. When estimated alone, both perceived issue agreement and perceived party agreement are large in magnitude, an one-point increase in either being associated for about a full half-point in approval or likelihood of vote. When considered together, coefficient sizes noticeably

Table 5 – Full regressions with varying inclusion of independent variables. Each column is a regression, with varying levels of controls. For the first set of four regressions, the outcome is Approval. In the second set of four regressions, the outcome is vote for incumbent. All models include fixed effects for each year-state combination.

	Outcome: Approval				Outcome: Vote			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Perceived issue agreement	0.44 (0.007)		0.27 (0.006)	0.18 (0.006)	0.56 (0.01)		0.33 (0.01)	0.23 (0.01)
Perceived party agreement		0.51 (0.007)	0.41 (0.006)	0.30 (0.006)		0.61 (0.01)	0.49 (0.01)	0.33 (0.01)
Actual ideological agreement				0.73 (0.02)				0.93 (0.04)
Constant	-0.01 (0.008)	0.01 (0.008)	-0.04 (0.007)	-0.01 (0.008)	0.05 (0.02)	0.11 (0.02)	0.04 (0.01)	0.08 (0.01)
Average of Outcome	0.06	0.06	0.06	0.06	0.22	0.22	0.22	0.22
Std. Dev. of Outcome	0.69	0.69	0.69	0.69	0.85	0.85	0.85	0.85
R-squared	0.21	0.30	0.36	0.41	0.20	0.29	0.34	0.40
Clusters	847	847	847	847	742	742	742	740
Observations	44,575	44,229	44,082	43,466	24,222	23,906	23,823	23,619

Clustered Standard Errors by Representative.

decrease.

4.3 Instrumental Variables Estimates

To further verify the causal structure assumed here, we estimate the same quantities of interest using an instrumental variables (IV) approach delineated in Figure 1. The classic IV method is an approach to solve an omitted variable bias problem in OLS or to estimate one direction of a simultaneous relationship in a structural model (Angrist and Pischke 2008). Omitted variables and simultaneity bias OLS estimates, but may be corrected with IV. Two specific sources of bias are of concern here. First, our OLS estimates might be contaminated by projection, a type of reverse causality. A respondent might decide that they like their member of Congress and, thus, say that they are in agreement with the legislator on key roll call votes, when in fact they are not. Second, there may be omitted variables that affect approval *and* correlated with the picture in people’s heads about the legislator’s party or issues. For example, an incumbent who is very charismatic or from a well-connected family might be very popular in a community. People might believe that people who are likable or well-known are more like them on the issues and in party identification. Controlling for all such important factors is difficult, perhaps impossible, but failing to do so can create bias in the OLS estimates of β_1 .

Three key assumptions must be met for instrumental variable estimates to be unbiased: A strong first stage, an exogenous instrument conditional on controls, and the fulfillment of the exclusion restriction. In asking whether our measures of perception correlate with reality, Table 3 has already answered the first question affirmatively. Validating the latter two assumptions are difficult to do empirically. The exogeneity of the instrument is violated when an unmeasured confounder affects both the instrument (a representative’s roll call votes interacted with respondent’s opinion) and the outcome (evaluations). We attempt to net out confounders that correlate with attributes of the agenda by using year fixed effects and our standard controls. We also verify that our estimates also are not confounded by unmeasured attributes of the specific representative by adding representative fixed effects.

The exclusion restriction cannot be tested as well, but the differences we see in the two types of first stage regressions in Table 3 suggest that our instruments operate on respondents

through their own, separate avenues. On average, perceived issue agreement nearly has a 1-to-1 correspondence with actual issue agreement as measured by roll call votes. Holding actual agreement fixed, actual party alignment barely contributes to perception. It is also intuitive that if representative’s legislative behavior affects voter’s support, its effect is only by changing the perception of that behavior.

Our implementation of the instrumental variables regression follows the specification outlined in equation (2) and shown in Table 6. Here again we only show the key coefficient estimates of interest, while other estimated coefficients appear in the Appendix and the first stage is characterized by the separate regressions in 3. For each of the two outcomes, we show estimates from three specifications. The first are the OLS estimates from Table A1, represented here for comparison. Next we show a TSLS regression where perceived issue agreement (A_{Ij}) is instrumented by its counterpart (Z_{Ij}), and the other variables including perceived party agreement are included as exogenous (that is, uninstrumented) variables. Because also wish to correct for bias in perceived party agreement (A_{Pj}), in the next regression we instrument for both endogenous variables (A_{Ij}, A_{Pj}) by both of their instruments.⁶

Viewed together, the IV estimates in Table 6 show a small change from the OLS regressions. The coefficient on perceived issue agreement on approval changes from 0.18 to 0.15; for vote, from 0.22 to 0.17-0.21. The coefficient on perceived party agreement does not change, and increases when estimating its effect on vote. In the appendix, Table A5 shows all estimated coefficients. Coefficient estimates for each congressional session in Tables A6 and A7, where we observe mirroring patterns to the OLS. Finally, Table A8 in the appendix accounts for possible confounding by differences in representative’s attributes or the districts they represent by including member fixed effects. The estimates remain nearly unchanged. These IV estimates, taken in context of the OLS estimates, suggests that whatever the effects of projection may be, they do not interfere with our ability to estimate the strength of issue accountability and party accountability.

The IV estimates in Table 6 are strikingly similar to the simple estimates evident in Figure

⁶ The downside of this final regression is that the underlying correlation structure between the two endogenous variables may contaminate one estimate.

Table 6 – Instrumenting for perceived issue agreement, perceived issue agreement is still predictive of approval and vote. Each column is a regression, and only two coefficient values — that of perceived issue agreement and perceived party agreement — are shown. For each outcome variable, three modeling specifications are listed for comparison. The first is the same OLS regression from Table A1, regressing the outcome on all perceived outcomes and all controls. “IV 1 instrument” estimates a TSLS instrumental variables with one endogenous variable (perceived issue agreement) paired with its instrument (actual issue agreement). “IV 2 instruments” also instruments for perceived party agreement by actual actual party agreement. The OLS estimates have slightly smaller variance, and are slightly smaller than those in the IV specifications in magnitude, suggesting some over-estimation bias.

	Outcome: Approval			Outcome: Vote		
	OLS	IV 1 instrument	IV 2 instruments	OLS	IV 1 instrument	IV 2 instruments
Perceived issue agreement	0.18 (0.006)	0.15 (0.007)	0.15 (0.007)	0.22 (0.01)	0.21 (0.01)	0.17 (0.01)
Perceived party agreement	0.30 (0.006)	0.30 (0.006)	0.30 (0.008)	0.33 (0.01)	0.33 (0.01)	0.55 (0.02)
Average of Outcome	0.06	0.06	0.06	0.22	0.22	0.22
Std. Dev. of Outcome	0.69	0.69	0.69	0.85	0.85	0.85
R-squared	0.40	0.40	0.40	0.39	0.39	0.36
First Stage F-stat		30,249			16,343	
Clusters	847	847	847	740	739	739
Observations	43,466	43,427	43,427	23,619	23,603	23,603

Control variables, year fixed effects, and intercept not shown. Clustered Standard errors in parentheses.

2. The IV estimate of the causal effect of Perceived Issue Agreement on Approval is 0.15 (third column). That means that, holding other things constant, an individual who thinks they align with the representative on all of the key votes has a 30 percentage point higher Approval rating of the representative than a similar individual who thinks they do not align with the representative on any of the key votes. In Figure 2, the estimated average effect of Perceived Issue Agreement given Party agreement is 38 percentage points.⁷

The IV estimate of the effect of Perceived Issue Agreement on vote choice is 0.17 (last column of the table). That means that the representative has a 34 percentage point higher vote margin among individuals who think that they align with the representative on all of the key votes than among similar individuals who think they do not align with the representative on any of the key votes. In Figure 2, the estimated average effect of Perceived

⁷ That is, $\{(0.43 * 9142) + (0.45 * 20975) + (0.25 * 14188)\} / (9142 + 20975 + 14188)$.

Issue Agreement given Party agreement is 45 percentage points.⁸ Instrumenting for Perceived Agreement clearly produced some improvements in the estimates, but the differences between the estimates in Figure 2 and in Table 6 are substantively fairly small.

All three analyses point to the same conclusion. Perceived Issue Agreement on key votes over the twelve-year span of this study strongly affected respondents support for their incumbents. Perceived Party Agreement also mattered, and the effect is somewhat stronger. But, even in this era of extreme party polarization, voters have not abandoned issue voting.

The contribution of actual Ideological Agreement, which is again the proximity between the representative’s NOMINATE roll call voting score and the respondent’s self-placed left-right ideology, also is worth noting. This factor is also a form of political representation, albeit one cast in conceptual terms. It has an enormous effect in Table A1, indicating that the measures of policy agreement and policy representation examined here may be only a part of the larger picture of issue-voting and policy representation in the US electorate. Taken together, Perceived Issue Agreement and Actual Ideological Agreement are the most important predictors of Approval of the Representative and vote choice in Table A1. Further research might unpack the broader concept of ideological representation.

4.4 *Confirmatory Experiment*

Finally, the 2009 MIT/Harvard modules of the CCES included an experiment in which respondents were provided with information about how their legislators voted. This experiment examined the effect of actually knowing a representative’s party and how a representative voted on each of four key votes in 2009 — the State Children’s Health Insurance Program (SCHIP), the American Reinvestment and Recovery Act (ARRA), the American Clean Energy and Security Act (ACESA), and the Patient Protection and Affordable Care Act (PPACA, which became the ACA). Before the experiment, respondents were asked whether they approved or disapproved of the job their representatives were doing, and how they thought their legislators voted on each piece of legislation. Respondents were randomly selected to be provided with

⁸ That is, $\{(0.46 * 5232) + (0.61 * 10671) + (0.25 * 8076)\} / (5232 + 10671 + 8076)$.

information about one of the roll call votes, and, for that roll call vote, the respondents were provided with the factually correct information about how their legislators actually voted on each piece of legislation. Respondents were also randomly chosen to be provided with the correct party information or not; if selected, they were provided the correct information about their representatives' partisanship.

As with the specifications implemented above, this experiment allows estimation of the effect of party agreement and issue agreement on approval. However, in this case, we measure the effect of receiving information about the true party or true roll call vote. We did not provide incorrect information. We coded the issue treatment variables as +1 if the respondent had a preference that in fact agreed with the roll call vote of the representative and -1 if the respondent in fact disagreed with the representative's roll call vote. The variable was 0 if untreated. We coded the party treatment variable as +1 if the respondent actually had the same party identity as the legislator and -1 if the respondent had the opposite partisan preference. The variable was 0 if untreated. We then estimate the effect of these treatment variables on approval of the legislator. In particular, we estimate the model on three mutually exclusive groups based on prior beliefs — those who had correct priors on all issues ($n \approx 1,300$), those who had correct priors on some issues ($n \approx 3,500$), and those who had correct priors on no issues ($n \approx 1,000$). The treatment effect of information among the last group is perhaps comes closest to our quantity of interest, but in all instances the treatment effects can be viewed as the degree of information gain from being told the actual roll call votes and partisanship. In the first group, the effect of the treatment can be interpreted as the effects of reducing guessing or lowering uncertainty about beliefs. In the second group, the treatment corrects incorrect beliefs and reduces uncertainty. In the third group, these voters knew nothing, and the treatment is that of coming to know the actual information.

The estimates of the treatment effects from the experiment are shown in Table 7. The patterns of coefficients resemble those in the IV estimates shown earlier. In the first group (those with correct beliefs), the treatment effects are on the order of 5 percentage points (coefficients of approximately 0.05) and are statistically significant. This is evidence consistent

with an experimental effect due to reduction in uncertainty due to guessing. In the second group (those with partly correct and partly incorrect beliefs), the coefficients are approximately 0.10 to 0.15 and statistically significantly different from zero. While more difficult to interpret cleanly, these coefficients are quite similar to the IV estimates. The third group provides the clearest confirmatory test as the treatment effects are interpreted directly as the effect of having a belief (versus not having a belief) about the party and issue votes of a representative. The effect of party is approximately 20 percentage points (0.20) in approval, and the effects of each roll call vote are approximately 0.12. The treatment effects of the roll call votes are approximately 0.00 for ARRA, 0.11 for SCHIP, 0.12 for ACESA, and 0.17 for PPACA; the latter three are statistically significantly different from 0. These estimates are however associated with larger standard errors, in part owing to the smaller sample.

The estimates from both the IV model and the confirmatory experiment parallel the results from the OLS estimates. They indicate that there are very strong effects of perceived (and actual) roll call vote agreement on approval and vote preference.

Table 7 – Survey Experiment manipulating representative’s positions improves approval. Each column is an OLS regression on a subset of the 2009 CCES Harvard MIT Module. Approval and agreement indicators take the values $\{-1, 0, 1\}$ at the party or issue level. Respondents are separated into one of three groups based on whether their beliefs about representative’s votes are correct. PPACA: Patient Protection and Affordable Care Act. ACESA: American Clean Energy and Security Act. SCHIP: State Children’s Health Insurance Program. ARRA: American Recovery and Reinvestment Act.

	Outcome: Approval		
	Correct Priors on all issues	Incorrect Priors on some issues	No Prior belief
Information Treatment on Agreement with			
Party	0.06 (0.040)	0.12 (0.025)	0.21 (0.057)
PPACA Vote	0.08 (0.035)	0.11 (0.021)	0.17 (0.043)
ACESA Vote	0.09 (0.035)	0.14 (0.021)	0.12 (0.042)
SCHIP Vote	0.05 (0.040)	0.11 (0.021)	0.11 (0.042)
ARRA Vote	0.05 (0.036)	0.12 (0.021)	-0.00 (0.041)
Prior Belief on Agreement with			
Party	0.02 (0.031)	0.03 (0.017)	
PPACA Vote	0.13 (0.039)	0.09 (0.017)	
ACESA Vote	0.04 (0.036)	0.05 (0.017)	
SCHIP Vote	0.00 (0.032)	0.04 (0.018)	
ARRA Vote	0.11 (0.036)	0.07 (0.017)	
Pre-experiment controls			
Pre-Test Approval	0.65 (0.027)	0.63 (0.016)	0.56 (0.040)
= Not Sure	1.50 (0.101)	1.37 (0.063)	1.24 (0.113)
Constant	0.91 (0.082)	0.92 (0.042)	1.05 (0.106)
R-squared	0.456	0.530	0.217
Observations	1,300	3,439	970

Standard errors in parentheses.

5 Conclusion

This paper introduced a series of questions asking how voters perceive the party of their representatives and their votes on specific issues, and used observational, instrumental variable, and experimental methods to estimate whether voters support or oppose their representatives based on their perceived agreement. Our findings contribute to several debates ongoing in the representation literature. One might cast these debates as broader concerns about the democratic electorate.

First, some observers worry that partisan alliances dominate voters' behavior in the modern American Politics, thereby diminishing the constraint of issue accountability, and, by implication, allowing representatives to diverge from their co-partisan constituents' preferences on substance. We showed this is not the case from simple tabulations (Figure 2) and various regression specifications. To be clear, perceived allegiance on party membership is still important. But so is perceived agreement on the issues, holding party allegiance constant. OLS and instrumental variable specifications both show that perceived issue agreement has about half the impact as perceived party allegiance does on both approval and vote choice, holding perceived party allegiance constant.

Second, others worry that communication between representatives and voter's perception of them is not only imperfect, but also systematically biased. A common suspect for such bias is partisanship as a biased lens: individual's representative's stance on particular roll call votes may be irrelevant because the only thing that reliably reaches voter's cognition is their party label. We showed in the first stage regressions in Table 3 that although a partisan lens may exist, it does not appear to bias perceived agreement on the issues. Predicting perceived issue agreement and perceived party agreement with their representative with their actual counterparts, we find that each reality is highly predictive of its counterpart perception, but not of other types of perceptions.

Finally, yet others worry that voter's stances on issues and thus their perceived agreement are merely projections of their partisan loyalty. In other words, they may adjust their perceived congruence with their representative based on partisan alliances or other factors.

We showed from our instrumental variable regressions in Table 6 that even if such projection or elite-led preference formation was in operation, it is highly unlikely that it explained away issue-based accountability, and, separately, party-based accountability.

The evidence that voters hold legislators accountable for their roll call votes means that policy representation, at least as political scientists have long conceived it, has not broken down. Voters vote to keep legislators they agree with, and turn out of office those they do not. The swings in party control of Congress are consistent with an electorate that in fact cares about, pays attention to, and votes on the basis of the issues. While the contribution of party agreement is about twice as large as that of issue agreement, we must recall that by our construction all self-identifying independent voters have a party agreement of 0 regardless of their beliefs of their representative's party. Thus, to the extent that the choice of independents are important for electoral outcomes as swing voters, a representative's agreement with their constituents on specific policies can be critical.

Extreme partisan polarization *is* a form of representational failure. But it is different from what political scientists have long equated with a failure of policy representation. It is not that voters do not care about the issues, as Miller and Stokes conjectured. Rather, voters do care about the issues; they just aren't given policy choices that most Americans can get behind. The combination of an electorate that cares about (and votes on) the issues and two highly polarized parties is a recipe for instability. One party gains control for two, maybe four, years. Laws are dismantled, reversed. Then the other returns to power. The problem is that neither party has been able to stitch together a political coalition, message, and policy agenda that most Americans support. The political failure today is not the failure of the voters to hold Congress accountable. It is that both parties are in a bad equilibrium, a steady state that is a long-term losing proposition. The voters, for their part, continue to do their job. They hold their legislators accountable. The result is a pattern of oscillating political control of government. In the era of polarization, the majority of people embrace neither party's vision for America.

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A Questions

Exhibit 1 – CCES Roll Call Vote Questions

Questions grouped by Congressional session at the time of the survey. Each rows reports the question number. Questions begin CC for Common Content, then the year, followed by the question number. Final passage in both chambers are indicated by “Y” (passage), “N” (vote failed), and “(nv)” (chamber did not hold a floor vote). Congresses labeled by the President, Speaker, and Senate Majority Leader. Policies for which a *perception* question (Exhibit 2) was asked as well are bolded.

109TH CONGRESS (BUSH, HASTERT, FRIST)		Hou.	Sen.	110TH CONGRESS (BUSH, PELOSI, REID)		Hou.	Sen.
CC06_3060	Ban Partial Birth Abortion	Y	Y	CC07_34, CC08_316E	SCHIP	Y	Y
CC06_3063	Fund Stem Cell 2005	Y	Y	CC07_38, CC08_316D	FISA	Y	Y
CC06_3066	Withdraw Iraq 2006	(nv)	N	CC07_42, CC08_316B	Raise Minimum Wage 2007	Y	Y
CC06_3069	Immigration Reform	(nv)	N	CC07_46, CC08_316A	Withdraw Iraq 2007	Y	N
CC06_3072	Raise Minimum Wage 2006	Y	Y	CC08_316C	Fund Stem Cell 2007	Y	Y
CC06_3075	Cut Capital Gains Tax	Y	Y	CC08_316F	Ban Gay Marriage	N	N
CC06_3078	CAFTA	Y	Y	CC08_316G	Foreclosure Assistance	Y	Y
				CC08_316H	NAFTA	Y	Y
				CC08_316I	TARP	Y	Y
111TH CONGRESS (OBAMA, PELOSI, REID)		Hou.	Sen.	112TH CONGRESS (OBAMA, BOEHNER, REID)		Hou.	Sen.
CC09_59A	Ledbetter Fair Pay	Y	Y	CC11_340a	Raise Debt Ceiling	Y	Y
CC09_59B	Hate Crime Prevention	Y	Y	CC11_341A	ARRA	Y	Y
CC09_59C, CC10_332A	ARRA	Y	Y	CC11_341B	SCHIP 2009	Y	Y
CC09_59D, CC10_332B	SCHIP 2009	Y	Y	CC11_341C	ACESA	Y	(nv)
CC09_59E, CC10_332C	ACESA	Y	(nv)	CC11_341D, CC12_332I	PPACA	Y	Y
CC09_59F, CC10_332D	PPACA	Y	Y	CC11_341E, CC12_332J	End DADT	Y	Y
CC09_59G	Sotomayor		Y	CC11_341F	FISA	Y	Y
CC09_59H	House Bill ACA	Y	(nv)	CC11_341G	Fund Stem Cell 2007	Y	Y
CC10_332E	Kagan		Y	CC11_341H	TARP	Y	Y
CC10_332F	Dodd Frank	Y	Y	CC12_332A	Ryan Budget	Y	N
CC10_332G	End DADT	Y	Y	CC12_332B	Simpson Bowles	N	(nv)
CC10_332H	FISA	Y	Y	CC12_332C	Middle Class Tax Cut	(nv)	Y
CC10_332I	Fund Stem Cell 2007	Y	Y	CC12_332D	Tax Relief 2012	Y	Y
CC10_332J	TARP	Y	Y	CC12_332E	Relig. Exempt. ACA	(nv)	Y
				CC12_332F	South Korea FTA	Y	Y
				CC12_332G	Repeal ACA 2012	Y	(nv)
				CC12_332H	Keystone 2012	(nv)	N
113TH CONGRESS (OBAMA, BOEHNER, REID)		Hou.	Sen.	114TH CONGRESS (OBAMA, BOEHNER / RYAN, MCCONNELL)		Hou.	Sen.
CC13_320A, CC14_320A	Gun Background Check	(nv)	N	CC15_327A, CC16_351I	Repeal ACA 2015	Y	(nv)
CC13_320B, CC14_320B	Gun No Disclosure	(nv)	Y	CC15_327B	Keystone 2014	Y	N
CC13_320C, CC14_320C	Ban Hi Capacity Gun	(nv)	N	CC15_327C, CC16_351G	Iran Sanction	(nv)	(nv)
CC13_320D, CC14_320D	Ban Assault Rifle	(nv)	N	CC15_327D, CC16_351B	TPA	Y	Y
CC13_320E, CC14_320E	Concealed Gun Permit	(nv)	N	CC15_327E	Cuba Open	N	(nv)
CC13_332A, CC14_323_3	Ban 20 week Abortion	Y	(nv)	CC15_327F1	Renew Patriot Act	(nv)	(nv)
CC13_332B, CC14_325_2	Simpson Bowles	N	(nv)	CC15_327F2, CC16_351C	Freedom Act 2015	Y	Y
CC13_332C	Repeal ACA 2013	Y	(nv)	CC15_327G, CC16_351D	TAA	Y	Y
CC13_332D	Keystone 2012	(nv)	N	CC15_327H	Violence against Women	Y	Y
CC13_332E	Sales Tax Online	(nv)	Y	CC16_351A	Garland		(nv)
CC13_332F	Violence against Women	Y	Y	CC16_351E	Education To States	Y	Y
CC13_332G, CC14_331_2	Freedom Act 2013	(nv)	(nv)	CC16_351F	Highway Funding	Y	Y
CC13_332H	Student Success	Y	(nv)	CC16_351H	Medicare Reform	Y	Y
CC14_325_1	Ryan Budget	Y	N	CC16_351K	Raise Minimum Wage	(nv)	(nv)
CC14_325_3	Extend Tax Cut	(nv)	Y				
CC14_325_4	Tax Relief 2014	Y	Y				
CC14_325_5	Raise Debt Ceiling 2014	Y	Y				
CC14_331_1	Agriculture	Y	Y				
CC14_331_3	End Nomination Filibuster		Y				
CC14_331_4	Relig. Exempt. ACA	(nv)	N				
CC14_331_5	South Korea FTA	Y	Y				
115TH CONGRESS (TRUMP, RYAN, MCCONNELL)		Hou.	Sen.				
CC17_340A	Repeal ACA 2017	(nv)	N				
CC17_340B	Gorsuch		Y				
CC17_340C	AHCA	Y	(nv)				
CC17_340D	CHOICE	Y	(nv)				
CC17_340E	Kate's Law	Y	(nv)				
CC17_340F	Iran N.K. Russia Sanctions	Y	Y				
CC17_340G	No Sanctuary	Y	(nv)				
CC17_340H	DeVos	(nv)	Y				
CC17_340I	Continue Funding	Y	Y				

Figure A1 – Difficulty of Issues. For each perception question asked, the proportion of correct answers, don't knows, and wrong answers. Issues are ordered by their level of correct responses. Surey weights used.

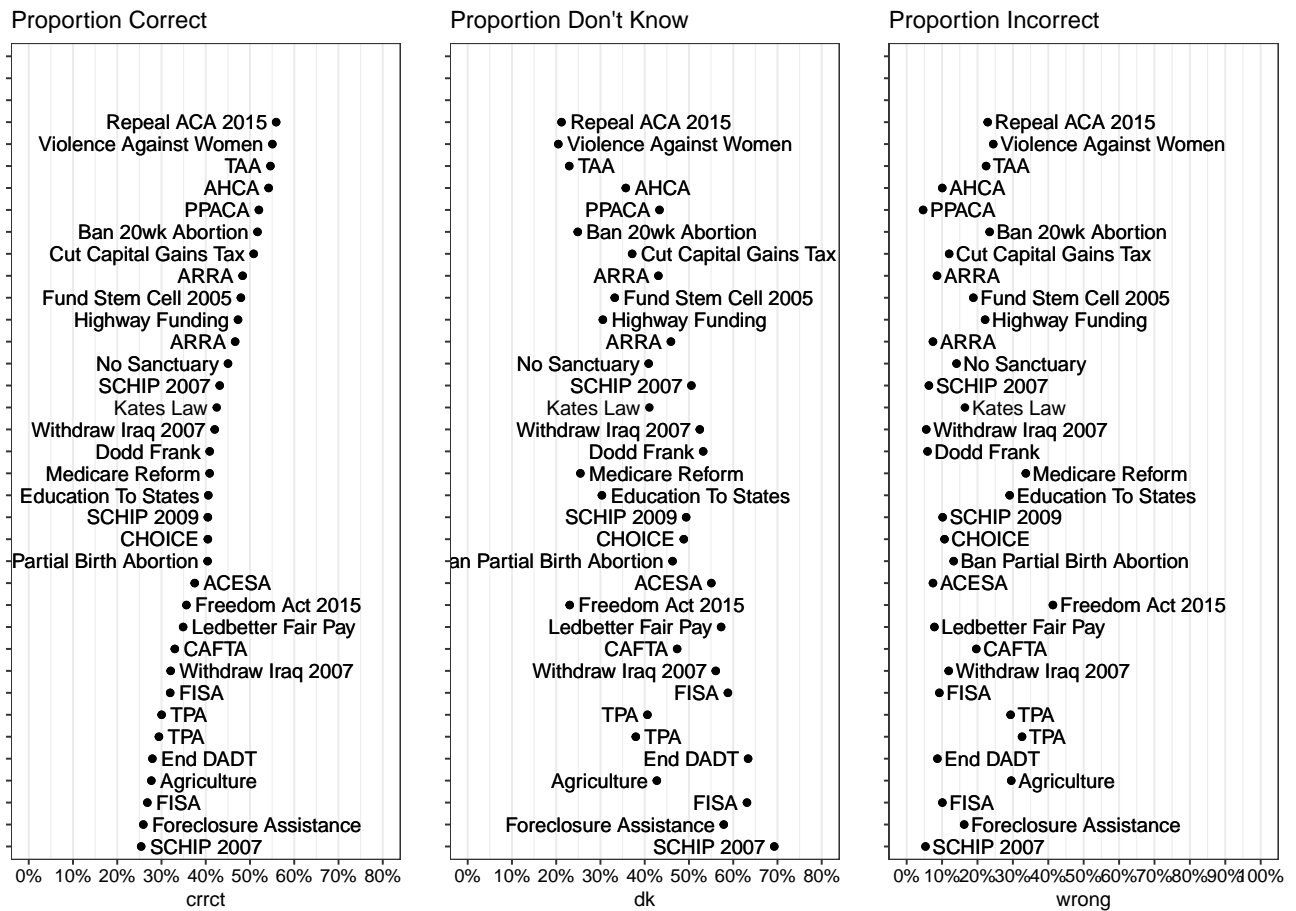


Exhibit 2 – Wording of a CCES roll call vote perception question.

An example excerpt from the CCES 2017 Harvard Module. Each respondent answers the following sets of questions for several issues which Congress has been considering.

This year Congress considered several bills to repeal or change the Affordable Care Act. For each of the following bills we would like to know how you think your member of Congress voted and whether you support or oppose the bill.

A Bill to repeal the Affordable Care Act, known as Obamacare.

Would you support or oppose this bill?

- Support
- Oppose

Do you think [Representative Name] voted for or against a bill To Repeal Obamacare?

- For
- Against
- Not Sure

...

This year Congress considered bills on a wide range of other subjects. For each of the following bills we would like to know how you think your member of Congress voted and whether you support or oppose the bill.

The No Sanctuary for Criminals Act. This bill proposed withholding federal funds from states and localities that do not report illegal immigrants who are arrested to the federal government.

Would you support or oppose this bill?

- Support
- Oppose

Do you think [Representative Name] voted for or against the No Sanctuary for Criminals Act?

- For
- Against
- Not Sure

...

B Data

Figure A2 – Correlations between key independent variables. Each cell is a correlation coefficient, using pairwise complete observations. The correlations are between the key independent variables of interest, summarized in Table 2.

Actual Ideology Agreement					1.00	
Perceived Ideology Agreement				1.00	0.54	
Actual Party Agreement			1.00	0.46	0.58	
Perceived Party Agreement			1.00	0.78	0.50	0.53
Actual Issue Agreement		1.00	0.32	0.37	0.32	0.33
Perceived Issue Agreement	1.00	0.88	0.39	0.44	0.38	0.43

C Regressions

Table A1 – Regressions in Table 5 but with coefficients from all control variables shown.

	Outcome: Approval				Outcome: Vote			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Perceived issue agreement	0.44 (0.007)		0.27 (0.006)	0.18 (0.006)	0.56 (0.01)		0.33 (0.01)	0.23 (0.01)
Perceived party agreement		0.51 (0.007)	0.41 (0.006)	0.30 (0.006)		0.61 (0.01)	0.49 (0.01)	0.33 (0.01)
Actual ideological agreement				0.73 (0.02)				0.93 (0.04)
Ideology (-1 to 1)	0.05 (0.02)	0.03 (0.01)	0.03 (0.01)	-0.02 (0.007)	0.09 (0.03)	0.06 (0.02)	0.06 (0.02)	0.00 (0.02)
Ideo. placement missing (imputed)	-0.02 (0.01)	-0.02 (0.01)	-0.02 (0.01)	-0.03 (0.01)	-0.03 (0.03)	-0.04 (0.03)	-0.03 (0.02)	-0.06 (0.02)
Ideo = Moderate	-0.01 (0.008)	-0.01 (0.008)	0.00 (0.007)	0.03 (0.007)	-0.02 (0.01)	-0.03 (0.01)	-0.01 (0.01)	0.03 (0.01)
Respondent identifies as Independent	-0.09 (0.007)	-0.02 (0.007)	-0.03 (0.007)	-0.04 (0.006)	-0.03 (0.01)	0.05 (0.01)	0.04 (0.01)	0.03 (0.01)
Perceived party of Rep is correct	0.02 (0.006)	-0.00 (0.006)	-0.01 (0.006)	-0.01 (0.005)	0.07 (0.010)	0.03 (0.01)	0.03 (0.01)	0.02 (0.01)
House Rep is Republican	0.07 (0.010)	0.01 (0.009)	0.06 (0.009)	-0.01 (0.009)	0.11 (0.02)	0.01 (0.01)	0.09 (0.01)	-0.02 (0.01)
Constant	-0.01 (0.008)	0.01 (0.008)	-0.04 (0.007)	-0.01 (0.008)	0.05 (0.02)	0.11 (0.02)	0.04 (0.01)	0.08 (0.01)
Average of Outcome	0.06	0.06	0.06	0.06	0.22	0.22	0.22	0.22
Std. Dev. of Outcome	0.69	0.69	0.69	0.69	0.85	0.85	0.85	0.85
R-squared	0.21	0.30	0.36	0.41	0.20	0.29	0.34	0.40
Clusters	847	847	847	847	742	742	742	740
Observations	44,575	44,229	44,082	43,466	24,222	23,906	23,823	23,619

Clustered Standard Errors by Representative.

Table A2 – OLS regressions predicting approval, by Congress. Each column is an OLS regression of equation (1), with varying subsets of the data. The outcome variable in the *top panel* is approval of the House incumbent, coded -1, -0.5, 0, +0.5, and +1. The outcome variable in the *bottom panel* is intention to vote for the incumbent representative, coded -1, 0, or +1. Control variables and year-state fixed effects are included in the estimation but not shown for brevity.

	Outcome: Approval							
	All	109th (2006)	110th (2007-08)	111th (2009-10)	112th (2011-12)	113th (2013-14)	114th (2015-16)	115th (2017)
Perceived issue agreement	0.18 (0.004)	0.27 (0.07)	0.25 (0.01)	0.28 (0.02)	0.24 (0.009)	0.04 (0.01)	0.05 (0.01)	0.19 (0.03)
Perceived party agreement	0.30 (0.004)	0.38 (0.05)	0.22 (0.01)	0.23 (0.01)	0.32 (0.008)	0.34 (0.02)	0.33 (0.01)	0.39 (0.03)
Actual ideological agreement	0.73 (0.01)	0.63 (0.2)	0.52 (0.04)	0.65 (0.04)	0.75 (0.02)	0.66 (0.05)	0.54 (0.04)	0.45 (0.08)
Average of Outcome	0.06	0.11	0.03	0.05	0.09	0.04	0.06	0.07
Std. Dev. of Outcome	0.69	0.70	0.67	0.69	0.72	0.63	0.61	0.63
R-squared	0.41	0.46	0.32	0.42	0.50	0.33	0.31	0.44
Clusters		271	441	438	432	434	434	387
Observations	43,466	451	11,240	5,068	18,943	2,887	3,887	990

Clustered Standard Errors by Representative.

	Outcome: Vote						
	All	109th (2006)	110th (2008)	111th (2010)	112th (2012)	113th (2014)	114th (2016)
Perceived issue agreement	0.23 (0.008)	0.34 (0.07)	0.33 (0.04)	0.48 (0.03)	0.25 (0.01)	0.02 (0.02)	0.21 (0.02)
Perceived party agreement	0.33 (0.008)	0.40 (0.06)	0.38 (0.03)	0.31 (0.02)	0.29 (0.01)	0.47 (0.03)	0.39 (0.02)
Actual ideological agreement	0.93 (0.02)	0.71 (0.2)	1.14 (0.1)	0.69 (0.08)	0.87 (0.05)	1.05 (0.08)	0.95 (0.06)
Average of Outcome	0.22	0.22	0.24	0.18	0.22	0.22	0.21
Std. Dev. of Outcome	0.85	0.81	0.83	0.86	0.87	0.78	0.80
R-squared	0.40	0.56	0.48	0.63	0.37	0.45	0.40
Clusters		244	333	387	425	361	391
Observations	23,619	395	1,408	2,153	15,950	1,215	2,498

Clustered Standard Errors by Representative.

Table A3 – First Stage Regressions, by Congress. First Stage predicting perceived issue agreement (the outcome) from Table 6 but separate regressions for each Congress.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All	109th (2006)	110th (2007-08)	111th (2009-10)	112th (2011-12)	113th (2013-14)	114th (2015-16)	115th (2017)
Actual issue agreement	0.95 (0.006)	0.96 (0.01)	0.99 (0.006)	1.00 (0.003)	1.00 (0.01)	0.99 (0.004)	1.10 (0.01)	1.07 (0.02)
Actual party agreement	0.05 (0.003)	-0.00 (0.005)	0.00 (0.001)	0.00 (0.002)	0.08 (0.005)	0.03 (0.008)	-0.01 (0.008)	0.03 (0.01)
Constant	0.06 (0.003)	0.01 (0.009)	0.01 (0.002)	0.00 (0.002)	0.08 (0.007)	0.08 (0.01)	0.07 (0.01)	-0.05 (0.02)
Average of Outcome	0.11	0.07	0.12	0.14	0.08	0.13	0.19	0.13
Std. Dev. of Outcome	0.68	0.58	0.68	0.74	0.63	0.84	0.70	0.65
R-squared	0.83	0.99	0.99	0.99	0.73	0.90	0.79	0.90
Clusters	847	271	441	438	432	432	433	389
Observations	43,840	448	11,403	5,114	19,093	2,901	3,885	996

Clustered Standard Errors in parentheses. All models include fixed effects for each year-state combination.

Table A4 – Regression of the type in Table 4 but treating news interest and education as factor variables, as an alternative as re-scaling them as on a -1 to 1 numeric scale. Omitted levels are those indicated without a coefficient estimate.

	All	Rep. Party Correct Percep.	Rep. Party Don't Know	Rep. Party Incorrect
Hardly At All	-0.09 (0.02)	-0.07 (0.04)	-0.02 (0.02)	-0.03 (0.05)
Only Now And Then	-0.09 (0.01)	-0.08 (0.02)	-0.02 (0.01)	-0.10 (0.04)
Don't Know	-0.11 (0.03)	-0.09 (0.05)	-0.04 (0.03)	-0.10 (0.10)
Some Of The Time	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)
Most Of The Time	0.17 (0.009)	0.15 (0.01)	0.03 (0.02)	-0.02 (0.03)
No HS	-0.05 (0.02)	-0.05 (0.03)	0.01 (0.03)	-0.06 (0.09)
High School Graduate	-0.04 (0.009)	-0.04 (0.01)	-0.01 (0.01)	-0.01 (0.03)
Some College	0.00 (.)	0.00 (.)	0.00 (.)	0.00 (.)
2-Year	0.00 (0.01)	-0.00 (0.02)	0.02 (0.02)	0.01 (0.05)
4-Year	0.05 (0.01)	0.05 (0.01)	0.01 (0.02)	0.01 (0.04)
Post-Grad	0.07 (0.01)	0.05 (0.01)	0.03 (0.03)	-0.03 (0.06)
Income (-1 to 1)	0.05 (0.008)	0.04 (0.009)	0.03 (0.01)	0.02 (0.03)
Actual party agreement	0.01 (0.005)	-0.00 (0.006)	0.01 (0.008)	0.02 (0.02)
Respondent is Republican	-0.01 (0.010)	-0.02 (0.01)	-0.00 (0.02)	-0.03 (0.04)
Respondent is Democrat	0.00 (0.009)	0.01 (0.01)	-0.00 (0.01)	-0.04 (0.03)
Ideology (-1 to 1)	-0.02 (0.008)	-0.03 (0.01)	0.00 (0.01)	-0.01 (0.03)
Ideo = Moderate	-0.02 (0.007)	-0.03 (0.010)	0.00 (0.01)	-0.05 (0.03)
Age (-1 to 1)	0.08 (0.01)	0.05 (0.01)	0.01 (0.02)	0.09 (0.04)
Woman	-0.08 (0.008)	-0.07 (0.010)	-0.02 (0.01)	-0.05 (0.03)
Average of Outcome	0.26	0.40	0.06	0.09
Std. Dev. of Outcome	0.48	0.50	0.35	0.48
R-squared	0.13	0.11	0.023	0.040
Clusters	807	44 796	780	634
Observations	43,671	32,828	8,263	2,386

Table A5 – IV regressions with all controls Reproduces Table 6 but displays estimates for control variables.

	Outcome: Approval			Outcome: Vote		
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	1 instrument IV	2 instruments IV	OLS	1 instrument IV	2 instruments IV
Perceived issue agreement	0.18 (0.006)	0.15 (0.007)	0.15 (0.007)	0.22 (0.01)	0.21 (0.01)	0.17 (0.01)
Perceived party agreement	0.30 (0.006)	0.30 (0.006)	0.30 (0.008)	0.33 (0.01)	0.33 (0.01)	0.55 (0.02)
Actual ideological agreement	0.74 (0.02)	0.76 (0.02)	0.76 (0.02)	0.94 (0.04)	0.95 (0.04)	0.66 (0.04)
Ideology (-1 to 1)	-0.01 (0.007)	-0.02 (0.007)	-0.02 (0.007)	0.00 (0.02)	0.00 (0.02)	0.01 (0.02)
Ideo. placement missing (imputed)	-0.04 (0.01)	-0.04 (0.01)	-0.04 (0.01)	-0.06 (0.02)	-0.06 (0.02)	-0.06 (0.02)
Ideo = Moderate	0.03 (0.007)	0.03 (0.007)	0.03 (0.007)	0.03 (0.01)	0.03 (0.01)	0.02 (0.01)
Respondent identifies as Independent	-0.04 (0.006)	-0.04 (0.006)	-0.04 (0.006)	0.03 (0.01)	0.03 (0.01)	0.06 (0.01)
Perceived party of Rep is correct	-0.01 (0.005)	-0.01 (0.005)	-0.01 (0.005)	0.02 (0.01)	0.02 (0.01)	0.00 (0.01)
House Rep is Republican	-0.01 (0.008)	-0.02 (0.008)	-0.02 (0.008)	-0.00 (0.01)	-0.01 (0.01)	0.02 (0.01)
Constant	0.07 (0.03)	0.08 (0.03)	0.08 (0.03)	0.13 (0.04)	0.14 (0.04)	0.12 (0.04)
Average of Outcome	0.06	0.06	0.06	0.22	0.22	0.22
Std. Dev. of Outcome	0.69	0.69	0.69	0.85	0.85	0.85
R-squared	0.40	0.40	0.40	0.39	0.39	0.36
Clusters	847	847	847	740	739	739
Observations	43,466	43,427	43,427	23,619	23,603	23,603

Clustered Standard Errors in parentheses. Year fixed effects included, not shown.

Table A6 – IVs predicting approval, by Congress. Instrumental variable regressions from Table 6 but separate regressions for each Congress

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	All	109th (2006)	110th (2007-08)	111th (2009-10)	112th (2011-12)	113th (2013-14)	114th (2015-16)	115th (2017)
Perceived issue agreement	0.15 (0.007)	0.27 (0.06)	0.27 (0.01)	0.27 (0.02)	0.19 (0.01)	0.03 (0.01)	0.05 (0.02)	0.22 (0.03)
Perceived party agreement	0.30 (0.008)	0.37 (0.06)	0.14 (0.02)	0.30 (0.03)	0.33 (0.01)	0.37 (0.03)	0.38 (0.03)	0.30 (0.05)
Constant	-0.01 (0.008)	0.19 (0.08)	-0.00 (0.01)	-0.14 (0.02)	-0.02 (0.01)	0.03 (0.02)	0.03 (0.02)	0.09 (0.03)
Average of Outcome	0.06	0.11	0.03	0.05	0.09	0.04	0.05	0.07
Std. Dev. of Outcome	0.69	0.70	0.67	0.69	0.72	0.63	0.61	0.63
R-squared	0.40	0.41	0.30	0.40	0.49	0.30	0.29	0.41
Clusters	847	270	441	438	432	432	433	387
Observations	43,427	447	11,240	5,054	18,943	2,871	3,882	990

Clustered Standard Errors in parentheses.

Table A7 – IVs predicting vote choice, by Congress. IV from Table 6 but separate regressions for each Congress

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	All	109th (2006)	110th (2008)	111th (2010)	112th (2012)	113th (2014)	114th (2016)
Perceived issue agreement	0.17 (0.01)	0.40 (0.07)	0.27 (0.04)	0.41 (0.03)	0.18 (0.02)	0.03 (0.02)	0.15 (0.03)
Perceived party agreement	0.55 (0.02)	0.44 (0.07)	0.63 (0.05)	0.50 (0.04)	0.46 (0.02)	0.79 (0.05)	0.99 (0.06)
Constant	0.05 (0.01)	0.40 (0.10)	0.20 (0.06)	-0.04 (0.03)	0.03 (0.02)	0.14 (0.05)	0.08 (0.04)
Average of Outcome	0.22	0.23	0.24	0.18	0.22	0.22	0.21
Std. Dev. of Outcome	0.85	0.81	0.83	0.86	0.87	0.78	0.80
R-squared	0.36	0.48	0.42	0.60	0.35	0.36	0.21
Clusters	739	243	333	387	425	359	390
Observations	23,603	392	1,408	2,153	15,950	1,207	2,493

Clustered Standard Errors in parentheses.

Table A8 – Key estimates with Member Fixed Effects. Same regressions as Table 6 presented in the same format, but contains House Member fixed effects with year fixed effects.

	Outcome: Approval			Outcome: Vote		
	OLS	IV 1 instrument	IV 2 instruments	OLS	IV 1 instrument	IV 2 instruments
Perceived issue agreement	0.18 (0.006)	0.15 (0.005)	0.15 (0.005)	0.22 (0.01)	0.21 (0.009)	0.17 (0.010)
Perceived party agreement	0.30 (0.006)	0.31 (0.004)	0.31 (0.007)	0.32 (0.01)	0.32 (0.008)	0.54 (0.01)
Average of Outcome	0.06	0.06	0.06	0.22	0.22	0.22
Std. Dev. of Outcome	0.69	0.69	0.69	0.85	0.85	0.85
R-squared	0.40			0.38		
Clusters	847	847	847	740	739	739
Observations	43,466	43,427	43,427	23,619	23,603	23,603

Controls and intercept not shown. Standard errors clustered by Representative.