

Disjoint Delegations: Disentangling the Effect of Party Label on Inference

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July 15, 2019

Abstract

Party labels can act as an information shortcut that helps voters more reliably guess the issue positions of a representative, even when voters have no direct information about their representative's voting record. However, it can be difficult to assess exactly how much party labels, by themselves, improve voters' inferences about politicians' issue stances. This difficulty in isolating the effect of party labels arises because people who know a politician's party tend to also be more knowledgeable about politics in general. As a result, a number of studies have come to mixed conclusions about the effectiveness of heuristics (Lupia 1994; Dancey and Sheagley 2013). Here, I better isolate the effect of an individual being "treated" with knowledge of a representative's party label as a heuristic by using an instrumental variable design. Specifically, I use living in a state with a mixed delegation to the Senate (one Republican and one Democratic Senator) as an instrument for knowing the party label of each Senator. I then use this instrumented measure to examine how knowing a Senator's party affiliation affects a citizen's ability to guess their Senator's positions on key votes. Having a mixed delegation is largely orthogonal to other individual-level characteristics, but does affect an individual's ability to know their Senators' party affiliations because they must be able to specifically pair the right party label with each Senator (rather than simply guess it from other knowledge about their state). Individuals living in a state with a mixed delegation are therefore less likely to know the party label of their Senators. Using this instrumental variable design, I find that knowing a Senator's party makes voters 13.1% more likely to correctly guess their position on major votes. This finding suggests that party

labels can independently improve citizen inference about their representatives, even when other forms of political knowledge are held relatively constant.

Keywords: Heuristics, party label, heuristic effectiveness, decision-making

1 Introduction

Individuals employ a variety of different heuristics to make decisions including party label (Dancey and Sheagley 2013), group endorsements (Lupia 1994), and source cues (Nicholson 2011). In particular, party label is generally easy for individuals to obtain. For individuals that understand party platforms, knowing the party label provides a large amount of information at a relatively low cost. The party label can help individuals make decisions regarding individual candidates and their policy positions, given that candidates and representatives follow their party platform (Dancey and Sheagley 2013).

In terms of using the party label as an effective heuristic, it is hard to isolate the effect of knowing the party label in the real world, as party affiliation goes together with many different things used in political decision making. For example, knowing a group endorsement is likely not the only information that an individual has about a given policy. Individuals might also know which party favors it, which politicians endorse it, or some idea of what kinds of effects the policy will bring. Disentangling the effect of party label from other heuristics is important because previous literature has come to mixed conclusions about the effectiveness of heuristics and their ability to lead to high quality decision making. Therefore, this paper seeks to uniquely identify the party label as separate from other heuristics and investigate the effect of knowing the party label on the probability of making a correct decision.

Scholars have asked if heuristics work and what the standards are by which we should evaluate them (Lupia 1994). Do individuals who use heuristics make the same decisions that they would have made if they had complete information? Can uninformed individuals come to the same conclusions as more informed individuals through the use of heuristics? Despite the initial discovery that heuristics could be used to overcome lack of information (Popkin 1991; Sniderman, Brody, and Tetlock 1991; Page and Shapiro 1992; Lau and Redlawsk 2006; Lupia 1994; Tversky and Kahneman 1974), further research argued that heuristics might

not always be useful, efficient, or lead to the same results that full information would have led to (Kahneman 2003; Kahneman and Tversky 1979; Dancey and Sheagley 2013; Lau and Redlawsk 2001; Kuklinski and Quirk 2000).

These conflicting conclusions could be related to a number of confounds. For instance, it might not be the case that knowing the party label biases decision-making. Instead, it could be that those who know it are more attentive to politics, stronger partisans, and more likely to engage in partisan motivated reasoning (Green, Palmquist, and Schicker 2002; Cohen 2003; Rahn 1993; Taber and Lodge 2006). Therefore, this paper seeks to uniquely identify the effect of knowledge of the party label of national politicians, holding all other things equal.

Our results show that knowing the party label is a useful cue that helps individuals make high-quality decisions. The identification strategy rests on a comparison between people that live in states with mixed delegations to the Senate and people that live in states with unified delegations to the Senate. A mixed delegation is one where there is one Republican Senator and one Democrat Senator. Mixed vs. unified delegation is orthogonal to other individual characteristic variables, but does affect knowledge of knowing the correct party label of a state's representatives. I argue that for individuals that know the party label, this increases the probability that they can correctly identify what actions their representative has taken. The primary way that having a mixed delegation affects knowledge of how the representative voted is that it is harder for individuals with mixed delegations to know the party label of a given representative in their state.

The research design employed in this paper uses the 2006 Cooperative Congressional Election Studies data for individual-level data and Senator roll-calls on bills asked about in the survey. Using an instrumental variables approach, I separate the effect of the party label by looking at mixed state delegations to the Senate. The idea behind this strategy is that individuals who live in states with mixed delegations are similar to those who live in states

with unified delegations in terms of political interest, as well as other variables related to knowledge of party labels. Because individuals in the two types of states are similar in terms of variables related to political knowledge, comparing individuals with mixed delegations to those who have unified delegations allows for both the identification of party label alone and the construction of a two stage model. In the first stage, I estimate the probability that an individual knows the party label of their Senate representatives, using a dummy variable for mixed delegation as the main independent variable. In the second stage, I estimate the probability of an individual correctly identifying how their representative voted, using the (first stage) probability of knowing the correct party label of the representative as the main independent variable.

I show that individuals who live in states that have a mixed delegation to the Senate will be less likely to know the party label of their representatives. I then show that voters who do not know the party label are about 13% less likely to correctly identify how their representative in Congress voted. This finding clarifies recent work, which shows that using the party label is sometimes associated with biased inferences. I do not deny that this is the case. However, I show that the average causal effect for those treated with knowing the party label is positive. When these voters know the party label of their Senator, they make more accurate inferences about how their Senator actually voted.

2 Heuristic Effectiveness

Because the cost of acquiring information is relatively high and individuals are relatively uninformed regarding the political environment, heuristics can be used as cognitive shortcuts (Chaiken 1980). Although widely used, previous literature has debated the effectiveness of heuristics; specifically, their ability to lead individuals in the right direction in terms of political decision making.

On one side, scholars have argued that heuristics are indeed effective, as they help uninformed individuals arrive at the same conclusions as informed individuals, without the cost of obtaining complete information about the subject (Lupia 1994; Eagly and Chaiken 1993; Kuklinski and Quirk 2000). In terms of making correct decisions, the political environment is highly complex and individuals are disadvantaged by their lack of information. Therefore, individuals use heuristics to understand and form opinions about complex issues, policies, and candidates without having complete information (Popkin 1991; Sniderman, Brody, and Tetlock 1991; Page and Shapiro 1992; Brady and Sniderman 1985; Lupia 1994). For example, studies have shown that using the likeability heuristic, uninformed individuals can infer the policy positions of social groups (Brady and Sniderman 1985) and make judgements based on their fondness for the group (Nicholson 2011).

In contrast, other scholars have shown that heuristics are not an effective way to make sense of the political environment and may not lead to correct decisions. Previously, heuristic ineffectiveness has been attributed to political interest (Dancey and Sheagley 2013; Lau and Redlawsk 2001), neglected information (Rahn 1993), and the idea that individuals will use any information they have that comes to mind when making a decision, regardless of the accuracy of this information (Fiske and Taylor 2008). Furthermore, it is difficult for individuals to know which pieces of information they possess are accurate and which ones are not. Without knowing the quality of the information that they are using, individuals can be misled by heuristics (Dancey and Sheagley 2013; Lau and Redlawsk 2001; Kuklinski and Quirk 2000).

Along these same lines, Kahneman and his colleagues have shown that heuristic use has the possibility of leading to less than optimal decisions (Kahneman 2003; Tversky and Kahneman 1974; Kahneman and Frederick 2002). Decisions that are less than optimal are those that are not the same as what they would have been if the individual had complete information on which to base their decision. In direct relation to the use of party label as a

heuristic, scholars have shown that ineffectiveness can stem from politicians whose actions deviate from the ideals of their party platform (Dancey and Sheagley 2013; Ansolabehere and Jones 2010).

In observational data, it is generally hard to separate out the effect of a particular heuristic from other knowledge that an individual has. For this purpose, experimental studies seem more appropriate. However, it may be the case that in a laboratory setting with fake candidates, information processing and heuristics may work differently. Because there is no “right answer” about how fake candidates actually voted in Congress, we cannot begin to answer the question of whether knowing the party label leads to more accurate inferences using a laboratory setting. Additionally, the lack of a real record means that subjects could never have direct knowledge of how a candidate voted. This may exaggerate the role of heuristics, since subjects are forced to use them with fake candidates.

This paper seeks to separate out the individual effect of knowing the party label from other possible heuristics, in the context of real-world politicians and voting records. Unfortunately, individuals who know one thing about politics, such as the party label of a politician, tend to know other things about politics as well (Huckfeldt et al. 1999). This leads to a general inability to estimate the effect of the party label on its own, without interference from other heuristics that individuals use to make political decisions. By using a unique instrumental variable approach, I show that individuals in states with a mixed delegation are not significantly different in terms of political interest level from individuals who live in states with a unified delegation. However, living in a mixed delegation state affects the probability of an individual knowing the party label of their representatives. If the party label is known, I argue that it has a positive effect on an individual’s ability to correctly identify the votes of their representatives.

3 Theory

On its own, when used as a heuristic, the party label is a beneficial tool that individuals can use to make up for incomplete information. I assume that individuals do in fact use the party label as information when making a political decision when they have it available to them. The effectiveness of the party label is conditional on the amount of information that can be gained from knowing it. This means that as the information level of the party label increases, using the party label as a heuristic will become more effective. In contrast, if the party label is uninformative, even when it is known and used, it will not be an effective decision-making tool if accuracy is the goal. Therefore, I assume that the party label is an informative heuristic.

The main goal of this paper is to separate out the individual effect of knowing the party label. Because I am looking at the effect of knowledge on decision-making, I assume that there are no significant differences between the knowledge level of individuals in mixed vs. unified delegation states while controlling for other pre-treatment covariates that could be thought to affect this relationship. Assuming that there are no significant differences in political knowledge between the two types of delegations means that on average, individuals in California (D-D) look relatively similar to individuals in Indiana (R-D) in terms of level of political knowledge. This is the key to separating out the effect of the party label. I assume that mixed versus unified delegation status is orthogonal to individual characteristics, but it does affect individuals' ability to know the party label of their representatives.

Knowing the party label is a useful cue that helps individuals make accurate decisions. The institutional characteristic of mixed versus unified delegations helps to separate out the effect of the party label on its own. I argue that having a mixed delegation affects both the ability to know the party label of the state's representatives and therefore, the ability to know how the representatives vote.

The effectiveness of using the party label as a heuristic also depends on an individual's knowledge of the ideological placement of the major parties. If an individual does not have knowledge of which party is on the left, knowing the party label of their state's representatives will not be very helpful. In contrast, for individuals that do know which party is on the left, knowing the party label should be highly beneficial, given that representatives are behaving according to their party's platform. Therefore, the negative effect of living in a mixed delegation will be the highest for people who can place the parties on the ideological scale. Individuals who know party placement but live in a state with a mixed delegation will have a harder time knowing which representative is from which party and therefore, will be less likely to correctly identify their representatives' votes. Alternatively, individuals that know the placement of the parties and live in a state with a unified delegation will be more likely to know the party label of their representatives and be able to put it to good use. For individuals that do not know the placement of the parties, living in a mixed delegation should have no effect on the ability to correctly identify votes, due to the fact that these individuals do not derive information from the party label.

Individuals who live in states with a mixed delegation are less likely to know the party label of their representatives than individuals that live in states with a unified delegation. Therefore, I hypothesize the following:

Hypothesis: Individuals who know the party label of their representatives will be more likely to correctly classify the votes of their representatives than people who do not know the party label of their representatives.

4 Research Design

To test this theory, I employ an instrumental variable design using data from the 2006 Cooperative Congressional Election Study¹. Additionally, I merged hand-coded data on each state’s Senate delegation onto the 2006 CCES dataset. The unit of analysis is individual bill-level voting data, where each state has two Senators who vote on proposed bills. Individuals are asked to identify the party label as well as the votes of their Senators on seven individual bills ranging from abortion to capital gains to the Iraq War. The data was converted to long form, meaning that each individual has 14 observations (7 bills for each Senator). The seven bills are analyzed separately, meaning that each individual has the opportunity to correctly guess 14 different votes between their two Senators².

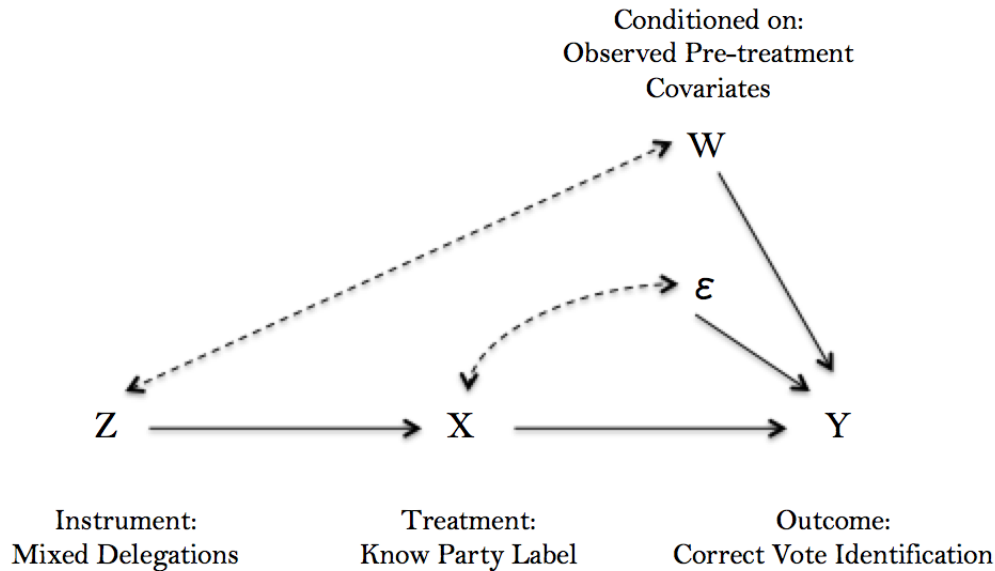


Figure 1: **Causal Diagram:** The instrumental variable, Z (a binary variable indicating mixed or unified delegation), affects the outcome Y , correct identification of votes, through the treatment X , knowing the party label of the Senator. Z has additional associations with Y that are blocked by conditioning on the observed pre-treatment covariates, W . In this case, Z is a valid conditional instrumental variable.

¹Data from the 2006 CCES was obtained from <http://projects.iq.harvard.edu/cces/home>.

²Unfortunately, this type of question where respondents are asked about the votes of their representatives is not available over multiple years. Therefore, this analysis only includes data from the 2006 CCES.

To separate out the effects of knowing the party label, I use an instrumental variable approach. The instrument is a binary indicator of living in a state with a mixed (1) or unified (0) delegation to the Senate. The treatment is knowledge of the party label of the state's Senators and the outcome is correct identification of a Senator's vote on a bill. As shown in Figure 1³, the binary indicator Z affects the outcome Y , correct identification of votes, through the treatment X , knowing the party label of the Senator.

Additionally, Z has additional associations with Y that are blocked by conditioning on the observed pre-treatment covariates, W . The observed pre-treatment covariates include the respondent's political interest level, age, gender, income, and ethnicity. In using this research design, I am not claiming that there are zero potential confounds between living in a mixed delegation and knowing the votes of a Senator. Instead, I am assuming that the number of plausible confounds becomes highly limited and can be controlled for. Figure 1 illustrates this argument in the following way: The instrument (Z) may have additional associations with our dependent variable (Y). These are represented by W in the figure above. However, we can block these additional associations by conditioning on them in both the first and second stage regressions. For example, there is a risk that Senators from mixed delegations vote with their party less consistently, and this independently makes it harder for voters to guess their position (whether or not a voter knows the party label). We can block this path by controlling for how often a Senator votes with their party (party unity score). If we control for these types of pre-treatment confounds, then Z is a valid conditional instrumental variable (Morgan and Winship 2009).

In the first stage, I investigate the effect an individual of living in a state with a mixed delegation on their ability to know the party label of their Senators, controlling for pre-

³Adapted from Morgan and Winship (2009).

treatment covariates. The first stage regression is estimated using the following formula:

$$\begin{aligned} KnowPartyLabel = & \alpha + \beta_1 mixed_i + \beta_2 polinterest_i + \beta_3 age_i + \\ & \beta_4 gender_i + \beta_5 income_i + \beta_6 whiteresp_i + \beta_7 SenParty_j + \beta_8 PartyUnityScore_j + u_i \quad (1) \end{aligned}$$

The index i indicates respondent-level characteristics, while index j indicates Senator-level characteristics. *KnowPartyLabel* is a binary indicator of knowing a given Senator's party label (1) or not (0). Although the theory assumes that individuals in states with mixed versus unified delegations are not significantly different in terms of political knowledge, due to lack of inclusion in the 2006 CCES, political interest is used as a proxy for political knowledge. There is no reason to believe that political knowledge and political interest would have significantly different effects on heuristic use. In fact, political knowledge questions may come too close to measuring knowledge of the party label, so political interest may actually be preferred in this case. *Polinterest* is a trichotomous measure with higher numbers representing more political interest. *Age* is the respondent's age at the time of the survey. *Gender* is a binary indicator that is equal to 1 if the respondent is female and 0 otherwise. Income is coded on a 14-point scale, with higher numbers representing a higher income level. Ethnicity is measured with *whiteresp*, which is coded 1 if the respondent is white and 0 otherwise. Because the party platform of one party might be easier to predict than the other, I control for the Senator's party (*SenParty*). Finally, to control for the effectiveness / ineffectiveness of the party label to convey accurate information, I use party unity scores as a measure of how often a given Senator votes with their party⁴.

In the second stage, I use the estimated probability of knowing the Senator's party label (from the first stage) as the main independent variable. I investigate the effect of knowing the party label on the ability to correctly identify the Senator's vote on a given bill. The

⁴Party unity scores were obtained from https://legacy.voteview.com/Party_Unity.htm.

second stage regression is estimated using the following formula:

$$CorrectVote = \pi + \delta_1 KnowPartyLabel_i + \delta_2 polinterest_i + \delta_3 age_i + \delta_4 gender_i + \delta_5 income_i + \delta_6 whiteresp + \delta_7 SenParty_j + \delta_8 PartyUnityScore_j + v_i \quad (2)$$

Correct Vote is a binary indicator that is equal to 1 if the respondent correctly identified their Senator’s vote on a given bill and 0 otherwise. The idea behind this instrumental variable research design is that, as will be shown below, individuals in states with mixed versus unified delegations are not significantly different in terms of political interest. Therefore, the only relevant difference should be the fact that some individuals are living in a state with a mixed delegation to the Senate and others are not. Because individuals are otherwise similar, comparing individuals with mixed delegations to those who have unified delegations allows for both the identification of party label alone and construction of a two stage model. I argue that living in a state with a mixed delegation makes it more difficult for individuals to be able to correctly identify the party label of their Senators. However, knowing the party label should make it easier to correctly identify the votes of their Senators.

5 Empirical Analysis

Before presenting results from the instrumental variable regression⁵, I first test the assumption that there is not a significant difference in the political interest level (as a proxy for political knowledge) between individuals who live in states with mixed delegations versus unified delegations. To do this, I find the group mean for political interest for mixed and unified states. The mean political interest level of individuals in mixed states is 2.81, while the

⁵I use a normal instrumental variables 2SLS model here for ease of interpretation, but more appropriate bivariate probit results are presented in the Appendix. There are no substantive differences between the results of the two models.

mean political interest level of individuals in unified states is 2.80. A t-test of the difference between these means yields a two-tailed p-value of 0.55, which suggests that there is indeed no significant difference between the political interest level of individuals in states with mixed versus unified delegations. Therefore, this allows for the assertion that the only relevant difference between individuals who live in states with mixed versus unified delegations is the delegation composition itself.

In the first stage of the instrumental variable regression, I investigate the effects of living in a state with a mixed delegation on the ability to correctly know the party label of a Senator. The theory assumes that individuals who live in states with mixed delegations will be less likely to correctly identify the party label of their Senators compared to individuals who live in states with unified delegations. This is exactly what I find in the first-stage estimates, shown in Table 1 below using Equation (1). Remember that each individual has the opportunity to correctly identify the party label of two Senators, individually, meaning that there are fourteen observations per respondent.

Because the effectiveness of the party label as a heuristic depends on an individual being able to derive information from the party label, I compute three separate instrumental variable models. In the first column of Table 1, all respondents in the CCES are used, regardless of their ability to place the parties on the ideological scale. Overall, the estimates in the first column suggest that living in a state with a mixed delegation decreases the likelihood of knowing the party label of the Senator, and this effect is significant at the $p < 0.001$ level. Changing from a unified delegation to a mixed delegation decreases the probability that an individual knows the party label of their Senator by 0.01. With the addition of covariates in Column 2, we see that political interest, age, gender, income, and ethnicity are also significant predictors of knowing the party label of their Senator. Therefore, I include these variables as controls to investigate the robustness of the mixed delegation effect, however, there is no reason to believe that the covariates have a significant effect for

Table 1: Instrumental Variable 2SLS Estimates (First Stage)

	(1)	(2)	(3)	(4)	(5)	(6)
	(All)	(All)	(Know Place)	(Know Place)	(DNK Place)	(DNK Place)
	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel
Mixed Delegation	-0.01*** (0.00)	-0.02* (0.01)	-0.01*** (0.00)	-0.02* (0.01)	-0.02*** (0.00)	-0.01 (0.02)
Political Interest		0.13*** (0.01)		0.10*** (0.01)		0.18*** (0.02)
Age		0.00*** (0.00)		0.00*** (0.00)		0.00*** (0.00)
Gender		-0.05*** (0.01)		-0.06*** (0.01)		-0.04** (0.01)
Income		0.01*** (0.00)		0.00*** (0.00)		0.01*** (0.00)
White Resp.		0.02* (0.01)		0.02** (0.01)		-0.00 (0.01)
Senator Party		-0.01 (0.01)		-0.01* (0.01)		-0.00 (0.01)
Party Unity Score		-0.00 (0.00)		-0.00 (0.00)		-0.00 (0.00)
_cons	0.95*** (0.00)	0.51*** (0.05)	0.96*** (0.00)	0.62*** (0.06)	0.93*** (0.00)	0.33** (0.11)
<i>N</i>	102242	59864	71456	41972	30786	17892

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

one group (mixed vs. unified) over the other. With the inclusion of covariates in Column 2, the effect remains negative and significant ($p < 0.05$).

In the third and fourth columns, I narrow the analysis to only individuals who can correctly place the parties on the ideological left-right scale. As proposed in the theory above, the negative effect of living in a state with a mixed delegation should be most pronounced for those that are able to correctly place the parties. The estimates in Column 3 suggest that individuals who know the placement of the parties are significantly less likely to be able to correctly identify the party label of their Senators when they live in states with mixed delegations ($p < 0.001$). With the inclusion of the covariates, the negative effect of living in a state with a mixed delegation remains significant ($p < 0.05$). Changing from a unified to a mixed delegation yields a decrease in the probability of an individual knowing their Senator's party label by 0.02.

The fifth and sixth columns present the effect of living in a state with a mixed delegation for individuals who are not able to correctly place the parties on the left right scale (roughly 30% of the sample). The estimate in Column 6 suggests that there is not a significant effect of living in a mixed delegation state on these individuals' ability to correctly identify the party label of their Senators. This is logical because individuals who are not able to place the parties on the left-right scale are probably also not likely to know the party label to begin with, regardless of which kind of state they live in.

Overall, Table 1 provides evidence to conclude that the effect of living in a state with a mixed delegation on individuals' ability to correctly identify the party label of their Senators is robustly negative and significant only for individuals that are able to correctly place the parties on the left-right scale.

In the second stage, I use the estimates of knowing the party label from the first stage regression as the main independent variable. The second stage investigates the effect of knowing the party label on individuals' ability to correctly identify a Senator's vote on a given bill. Recall that the hypothesis suggests that individuals who know the party label of their representatives will be more likely to be able to correctly classify the votes of their representatives than people who do not know the party label of their representatives. Using Equation (2), I compute the second-stage estimates of the instrumental variables regression, which are presented below in Table 2.

Columns 1 and 2 analyze the effects of knowing the party label of the Senator on ability to correctly identify their votes for all individuals. Column 1 is the effect of knowing the party label without the inclusion of any of the covariates. The effect of knowing the party label on correct identification of votes is positive and significant ($p < 0.05$). This effect is not attenuated when the pre-treatment covariates are added back into the regression (Column 2). In this case, there is still a positive and significant effect of knowing the party label on ability to correctly identify votes ($p < 0.05$). For individuals treated with the party label

Table 2: Instrumental Variable 2SLS Estimates (Second Stage)

	(1)	(2)	(3)	(4)	(5)	(6)
	(All)	(All)	(Know Place)	(Know Place)	(DNK Place)	(DNK Place)
	correct	correct	correct	correct	correct	correct
Know Party Label	4.79*	3.21*	5.28*	3.12*	3.19	2.98
	(2.17)	(1.43)	(2.69)	(1.35)	(2.54)	(3.72)
Political Interest		-0.33		-0.25		-0.45
		(0.18)		(0.14)		(0.66)
Age		-0.00*		-0.00		-0.00
		(0.00)		(0.00)		(0.01)
Gender		0.13		0.14		0.09
		(0.08)		(0.08)		(0.14)
Income		-0.01		-0.01		-0.02
		(0.01)		(0.01)		(0.03)
White Resp.		-0.04		-0.05		0.00
		(0.03)		(0.04)		(0.04)
Senator Party		0.03		0.02		0.06
		(0.02)		(0.02)		(0.03)
Party Unity Score		0.01***		0.01***		0.01*
		(0.00)		(0.00)		(0.00)
_cons	-3.73	-1.61*	-4.24	-1.86*	-2.18	-1.09
	(2.06)	(0.75)	(2.57)	(0.87)	(2.36)	(1.25)
<i>N</i>	98921	57945	69155	40586	29766	17359

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

(going from not knowing to knowing), ability to correctly identify the vote of the Senator increases by 3.21. Using these results, knowing a Senator's party makes voters 13.1% more likely to correctly guess their position on major votes⁶.

The third and fourth columns show the effects of knowing the party label on ability to correctly identify Senators' votes for only individuals who can correctly place the parties on the left-right scale. The results are similar to those in Columns 1 and 2. Knowing the

⁶This calculation is done using the bivariate probit model (included in the appendix) which has the same substantive results but is more accurate, given the binary treatment and outcome variables.

party label of the Senator has a positive and significant effect on ability to correctly classify their votes ($p < 0.05$). This effect is not attenuated by the inclusion of the pre-treatment covariates, as the effect of knowing the party label is still positive and significant at the $p < 0.05$ level. By treating individuals who are able to correctly place the parties on the left-right scale with the party label of their Senator, the probability of correctly identifying their votes increases by 3.12. For individuals who know the placement of the parties, the effect of knowing a Senator's party on their ability to correctly guess the Senator's position on votes increases from 13.1% (everyone) to 17.1%.

Columns 5 and 6 display the effects of knowing the party label of their Senator on ability to correctly identify their votes for only individuals who are not able to correctly place the parties on the left-right scale. Column 5 shows that the effect of knowing the party label on its own for individuals who are unable to place the parties is not significant. When the pre-treatment covariates are added back into the regression in Column 6, knowing the party label is still not a significant predictor of correctly identifying Senators' votes, just as expected. It would not make sense for there to be a positive effect of knowing the party label on correct identification of votes for individuals who do not know the placement of the parties because they are unable to derive party platform information from knowing the party label. While the magnitude of the coefficients for knowing the party label are relatively similar between the "know" and "don't know" voters, the standard errors are much larger for "don't know" voters, beyond what we would expect from the sample size alone, suggesting that any possible effect for "don't know" voters would be more variable and inconsistent. For individuals that cannot place the parties, knowing a Senator's party does not have a significant effect on their ability to correctly guess positions on major votes.

Therefore, the hypothesis is supported for only individuals who are able to place the parties on the left-right scale. Individuals who know the placement of the parties can benefit from knowing the party label, as it allows them to use party label as an informational

heuristic to help them correctly identify the votes of their Senators. Returning back to the assumption that the party label is an informative heuristic, we can see that this is indeed the case - the party label is an informative heuristic for people that can derive information from it (individuals that can correctly place the parties on the left-right scale).

5.1 States that Switch Often

It may be the case that states such as California, that almost never switch from a unified delegation to a mixed delegation (or the reverse), heavily influence the probability of an individual knowing the party label. To counter this argument, a robustness check was conducted with a subset of states that switched their delegation type 2-5 times over seven elections. The results from the first stage are substantively similar to the original analysis. The second stage results are presented below in Table 3. The results are substantively similar to the full dataset including all of the states, meaning that for individuals that reside in states that switch their delegation type often, living in a mixed delegation decreases the probability of knowing the party label. However, when the party label is known, individuals are more likely to correctly guess the votes of their representatives in Congress ($p < 0.01$).

6 Discussion & Conclusion

Previous research highlighted the possible association between using the party label as a heuristic and biased inferences as a consequence. However, as I illustrate here using a unique identification strategy, the average causal effect of the party label is that it improves inference. Individuals who know the party label of their Senator are more likely to make accurate inferences about how their Senator actually voted.

I argue that heuristics can be effective informational tools that individuals can use to make high-quality decisions. Using an instrumental variable approach, I find support for the

Table 3: Instrumental Variables 2SLS Estimates (Second Stage, States that Switch Often)

	(1)	(2)	(3)	(4)	(5)	(6)
	(All)	(All)	(Know Place)	(Know Place)	(DNK Place)	(DNK Place)
	correct	correct	correct	correct	correct	correct
Know Party Label	1.81*	0.95**	1.97*	0.86**	1.33	1.08
	(0.76)	(0.32)	(0.87)	(0.30)	(1.26)	(0.96)
Political Interest		-0.07		-0.06		-0.10
		(0.04)		(0.04)		(0.15)
Age		-0.00		-0.00		-0.00
		(0.00)		(0.00)		(0.00)
Gender		0.02		0.01		0.03
		(0.02)		(0.02)		(0.04)
Income Level		-0.00		-0.00		-0.00
		(0.00)		(0.00)		(0.01)
White Resp.		-0.02		-0.01		-0.04
		(0.02)		(0.02)		(0.04)
Senator Party		0.03**		0.01		0.06*
		(0.01)		(0.01)		(0.03)
Party Unity Score		0.01***		0.01***		0.01**
		(0.00)		(0.00)		(0.00)
_cons	-0.92	-0.57***	-1.07	-0.59***	-0.48	-0.48*
	(0.71)	(0.14)	(0.83)	(0.16)	(1.17)	(0.24)
<i>N</i>	35327	24342	24714	16841	10613	7501

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

hypothesis that knowing the party label improves inference, but this support is conditional on the ability to derive information from the party label itself. While the informational level of the party label is variable year to year and even bill to bill (Nail 2019), it is also the case that some individuals are better suited to make use of the party label than others. Individuals who are not able to correctly place the parties on the left-right scale are unable to make use of the party label as a heuristic even if they know it. This is due to the fact that they cannot derive information from the party label about which platform each label represents. Individuals who cannot place the parties on the left-right scale are not affected

by living in states with a mixed delegation to the Senate - they are neither less likely to know the party label of their Senator nor more likely to correctly identify the votes of their senators.

In contrast, individuals who are able to place the parties on the left-right scale can gain a significant predictive advantage by using the party label as a heuristic. For individuals who know the correct placement of the parties, living in a state with a mixed delegation significantly decreases their likelihood of knowing the party label of their Senators. However, individuals who are able to place the parties on the left-right scale and also know the party label of their representatives are significantly more likely to be able to correctly identify the votes of their Senators. The party label is only an effective heuristic when individuals can gain information from it and when this information can be used to make correct decisions. By knowing the placement of the parties and the party label of a politician, individuals are significantly more likely to be able to correctly predict how their politicians are voting.

This paper has shown that there are instances where heuristics are more effective than others. In this case, party label is an effective heuristic when individuals can derive information from the party label itself. This enables individuals to make high quality decisions with little information. Additionally, there are times when the party label is more informative than others, such as when the two parties are divided over a certain issue (Cite redacted). If the accuracy of heuristics is variable, this has consequences for uninformed individuals who use heuristics to make up for incomplete information and close the information gap between themselves and informed individuals.

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Appendix

6.1 Bivariate Probit Models

In the main part of the paper, I include two stage least squares instrumental variables regressions for ease of interpretation. Included below are the bivariate probit models due to the binary instrument and binary outcome variable. The results from the tables below are substantively similar to the 2SLS models used in the paper.

Table 4: Instrumental Variables Bivariate Probit Estimates (First Stage)

	(1) (All) KnowPartyLabel	(2) (All) KnowPartyLabel	(3) (Know Place) KnowPartyLabel	(4) (Know Place) correct	(5) (DNK Place) KnowPartyLabel	(6) (DNK Place) KnowPartyLabel
Mixed Delegation	-0.15** (0.05)	-0.19** (0.07)	-0.17** (0.06)	-0.26** (0.09)	-0.13 (0.09)	-0.11 (0.11)
Political Interest		0.68*** (0.05)		0.63*** (0.06)		0.75*** (0.07)
Age		0.01*** (0.00)		0.01*** (0.00)		0.01*** (0.00)
Gender		-0.40*** (0.05)		-0.50*** (0.06)		-0.21* (0.09)
Income Level		0.05*** (0.01)		0.04*** (0.01)		0.06*** (0.01)
White Resp.		0.14* (0.06)		0.21** (0.07)		-0.01 (0.09)
Senator Party		-0.09 (0.05)		-0.13* (0.06)		-0.00 (0.08)
Party Unity Score		-0.00 (0.00)		-0.00 (0.00)		0.00 (0.01)
_cons	1.64*** (0.02)	-0.85* (0.35)	1.72*** (0.03)	-0.31 (0.47)	1.49*** (0.04)	-1.57** (0.54)
athrho						
_cons	-0.71*** (0.10)	0.06 (0.07)	-0.78*** (0.16)	-0.01 (0.07)	-0.56*** (0.13)	0.24 (0.13)
N	98921	67290	69155	46719	29766	20571

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: Instrumental Variables Bivariate Probit Estimates (Second Stage)

	(1)	(2)	(3)	(4)	(5)	(6)
	(All)	(All)	(Know Place)	(Know Place)	(DNK Place)	(DNK Place)
	correct	correct	correct	correct	correct	correct
Know Party Label	1.99*** (0.14)	0.48*** (0.13)	2.13*** (0.20)	0.65*** (0.16)	1.70*** (0.20)	0.10 (0.24)
Political Interest		0.15*** (0.02)		0.13*** (0.03)		0.23*** (0.05)
Age		0.00 (0.00)		0.00 (0.00)		0.00 (0.00)
Gender		-0.08*** (0.02)		-0.08*** (0.02)		-0.05 (0.03)
Income Level		0.01*** (0.00)		0.01*** (0.00)		0.02*** (0.00)
White Resp.		0.06*** (0.02)		0.09*** (0.02)		0.00 (0.03)
Senator Party		0.00 (0.01)		-0.08*** (0.02)		0.18*** (0.03)
Party Unity Score		0.02*** (0.00)		0.02*** (0.00)		0.02*** (0.00)
_cons	-1.07*** (0.13)	-2.40*** (0.12)	-1.20*** (0.20)	-2.39*** (0.16)	-0.81*** (0.19)	-2.52*** (0.18)
athrho						
_cons	-0.71*** (0.10)	0.06 (0.07)	-0.78*** (0.16)	-0.01 (0.07)	-0.56*** (0.13)	0.24 (0.13)
<i>N</i>	98921	67290	69155	46719	29766	20571

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

6.2 Results by Bill

In this section, I check the effects of mixed delegation by bill for each of the seven bills that are included on the 2006 CCES. The results are largely consistent, as knowing the party label of their senator makes an individual more likely to correctly guess their position on a bill for five of the seven bills.

Table 6: Results by Bill for Both Senators and All Respondents (Bivariate Probit Model First Stage)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel	KnowPartyLabel
Mixed Delegation	-0.15 (0.08)	-0.17* (0.07)	-0.18* (0.07)	-0.15* (0.07)	-0.16* (0.07)	-0.14 (0.07)	-0.18** (0.07)
Political Interest	0.65*** (0.05)	0.70*** (0.05)	0.69*** (0.05)	0.70*** (0.05)	0.69*** (0.05)	0.70*** (0.05)	0.70*** (0.05)
Age	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)
Gender	-0.44*** (0.06)	-0.43*** (0.05)	-0.43*** (0.05)	-0.42*** (0.05)	-0.43*** (0.05)	-0.41*** (0.05)	-0.44*** (0.06)
Income Level	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.06*** (0.01)
White Resp.	0.11 (0.06)	0.14* (0.06)	0.13* (0.06)	0.13* (0.06)	0.13* (0.06)	0.14* (0.06)	0.14* (0.06)
Senator Party	-0.01 (0.06)	-0.10 (0.06)	-0.10 (0.06)	-0.10 (0.06)	-0.08 (0.05)	-0.08 (0.05)	-0.10 (0.06)
Party Unity Score	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
._cons	-0.70 (0.45)	-0.79 (0.42)	-0.71 (0.43)	-0.79* (0.40)	-0.84* (0.42)	-1.10* (0.49)	-0.85* (0.42)
athrho							
._cons	-0.07 (0.17)	0.08 (0.08)	-0.13 (0.09)	0.18 (0.11)	0.10 (0.10)	0.16 (0.10)	0.08 (0.12)
N	7408	8503	8517	8418	8419	8304	8376

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7: Results by Bill for Both Senators and All Respondents (Bivariate Probit Model Second Stage)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	correct	correct	correct	correct	correct	correct	correct
Know Party Label	0.81* (0.34)	0.46* (0.19)	1.14*** (0.20)	0.11 (0.22)	0.61** (0.22)	0.69** (0.22)	0.09 (0.25)
Political Interest	0.11 (0.06)	0.23*** (0.05)	0.13** (0.05)	0.22*** (0.05)	0.22*** (0.06)	0.28*** (0.06)	0.11* (0.05)
Age	-0.00 (0.00)	0.00 (0.00)	0.00** (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)
Gender	-0.06 (0.05)	-0.08* (0.04)	-0.08 (0.04)	-0.06 (0.04)	-0.15** (0.05)	-0.15** (0.05)	-0.10** (0.04)
Income Level	0.03*** (0.01)	0.02*** (0.01)	0.02** (0.01)	0.03*** (0.01)	0.01 (0.01)	0.02** (0.01)	0.01 (0.01)
White Resp.	0.15** (0.05)	0.09* (0.04)	0.05 (0.04)	0.03 (0.04)	-0.01 (0.05)	0.16** (0.05)	0.00 (0.04)
Senator Party	0.58*** (0.05)	-0.95*** (0.04)	0.59*** (0.04)	-0.69*** (0.04)	-0.66*** (0.05)	0.88*** (0.05)	0.56*** (0.03)
Party Unity Score	0.03*** (0.00)	-0.01** (0.00)	0.03*** (0.00)	0.00 (0.00)	0.04*** (0.00)	0.04*** (0.00)	0.02*** (0.00)
_cons	-4.10*** (0.34)	1.70*** (0.28)	-4.64*** (0.30)	0.69* (0.27)	-2.40*** (0.31)	-5.33*** (0.35)	-2.67*** (0.26)
athrho							
_cons	-0.07 (0.17)	0.08 (0.08)	-0.13 (0.09)	0.18 (0.11)	0.10 (0.10)	0.16 (0.10)	0.08 (0.12)
<i>N</i>	7408	8503	8517	8418	8419	8304	8376

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

6.3 States that Switch

In this section, I provide the first stage results from the 2SLS instrumental variables regression using states that switch 2-5 times over 7 elections. The second stage results are presented in Table 3 in the main text. Additionally, I provide bivariate probit models. Both versions are substantively similar to the 2SLS results presented in Table 3.

Table 8: Instrumental Variable 2SLS Estimates (First Stage, States that Switch Often)

	(1) (All) KnowPartyLabel	(2) (All) KnowPartyLabel	(3) (Know Place) KnowPartyLabel	(4) (Know Place) KnowPartyLabel	(5) (DNK Place) KnowPartyLabel	(6) (DNK Place) KnowPartyLabel
Mixed Delegation	-0.02*** (0.00)	-0.04** (0.01)	-0.02*** (0.00)	-0.04** (0.01)	-0.02*** (0.01)	-0.03 (0.02)
Political Interest		0.14*** (0.02)		0.13*** (0.02)		0.16*** (0.03)
Age		0.00*** (0.00)		0.00*** (0.00)		0.00** (0.00)
Gender		-0.05*** (0.01)		-0.06*** (0.01)		-0.04* (0.02)
Income Level		0.01*** (0.00)		0.01*** (0.00)		0.01** (0.00)
White Resp.		0.04*** (0.01)		0.05** (0.02)		0.03 (0.02)
Senator Party		-0.00 (0.01)		-0.01 (0.01)		0.02 (0.02)
Party Unity Score		0.00 (0.00)		-0.00 (0.00)		0.00 (0.00)
._cons	0.95*** (0.00)	0.39*** (0.08)	0.95*** (0.00)	0.48*** (0.10)	0.93*** (0.00)	0.20 (0.15)
<i>N</i>	36778	25242	25676	17500	11102	7742

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9: Instrumental Variable Bivariate Probit Estimates (First Stage, State that Switch Often)

	(1) (All) KnowPartyLabel	(2) (All) KnowPartyLabel	(3) (Know Place) KnowPartyLabel	(4) (Know Place) correct	(5) (DNK Place) KnowPartyLabel	(6) (DNK Place) KnowPartyLabel
Mixed Delegation	-0.18* (0.07)	-0.31** (0.09)	-0.22* (0.09)	-0.40*** (0.12)	-0.14 (0.13)	-0.16 (0.15)
Political Interest		0.70*** (0.07)		0.72*** (0.09)		0.70*** (0.12)
Age		0.01*** (0.00)		0.01*** (0.00)		0.01** (0.00)
Gender		-0.41*** (0.08)		-0.49*** (0.10)		-0.28* (0.14)
Income Level		0.06*** (0.01)		0.06*** (0.02)		0.06** (0.02)
White Resp.		0.30*** (0.09)		0.35** (0.11)		0.23 (0.15)
Senator Party		-0.02 (0.08)		-0.07 (0.09)		0.14 (0.13)
Party Unity Score		0.00 (0.01)		-0.00 (0.01)		0.01 (0.01)
._cons	1.61*** (0.04)	-1.59** (0.55)	1.67*** (0.05)	-1.02 (0.68)	1.50*** (0.06)	-2.57** (0.87)
athrho						
._cons	-0.40** (0.13)	0.10 (0.10)	-0.57*** (0.16)	0.01 (0.10)	0.02 (0.35)	0.39 (0.23)
<i>N</i>	35327	24342	24714	16841	10613	7501

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 10: Instrumental Variable Bivariate Probit Estimates (Second Stage, States that Switch Often)

	(1) (All) correct	(2) (All) correct	(3) (Know Place) correct	(4) (Know Place) correct	(5) (DNK Place) correct	(6) (DNK Place) correct
Knowledge Party Label	1.48*** (0.22)	0.42* (0.20)	1.75*** (0.24)	0.60** (0.21)	0.69 (0.71)	-0.10 (0.40)
Political Interest		0.12** (0.04)		0.09 (0.05)		0.23** (0.08)
Age		0.00 (0.00)		0.00 (0.00)		0.00 (0.00)
Gender		-0.07** (0.03)		-0.09** (0.03)		-0.03 (0.05)
Income Level		0.02*** (0.00)		0.01** (0.00)		0.02*** (0.01)
White Resp.		0.06* (0.03)		0.07 (0.04)		0.01 (0.05)
Senator Party		0.09*** (0.02)		0.02 (0.03)		0.27*** (0.04)
Party Unity Score		0.02*** (0.00)		0.03*** (0.00)		0.02*** (0.00)
_cons	-0.65** (0.22)	-2.51*** (0.16)	-0.89*** (0.24)	-2.60*** (0.21)	0.05 (0.65)	-2.51*** (0.24)
athrho						
_cons	-0.40** (0.13)	0.10 (0.10)	-0.57*** (0.16)	0.01 (0.10)	0.02 (0.35)	0.39 (0.23)
<i>N</i>	35327	24342	24714	16841	10613	7501

Robust standard errors clustered by respondent in parentheses.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$