Heuristic Projection: How Interest Group Cues Can Undermine Democratic Accountability

David E. Broockman* Aaron R. Kaufman[†] Gabriel S. Lenz[‡]

February 4, 2022

Abstract

An influential perspective contends that voters use interest group ratings and endorsements to infer their representatives' actions and hold them accountable. We argue that interest group cues can have pathological effects on voters' judgments when voters are unfamiliar with the group: voters often project their own views onto groups they are unfamiliar with, naively assuming these groups share their views. Consequently, when an interest group misaligned with voters' own views positively rates or endorses their representative, voters often 1) mistakenly infer that the group shares their own views, 2) mistakenly infer their representative shares their own views, too, and subsequently 3) approve of their representative more—even when their representative earned these group ratings by casting votes voters disagree with. We call this tendency *heuristic projection*. We document this pathology across four studies involving real interest groups and their ratings of participants' actual representatives.

*Associate Professor, Charles and Louise Travers Department of Political Science, University of California, Berkeley. dbroockman@berkeley.edu.

[†]Assistant Professor, New York University, Abu Dhabi. aaronkaufman@nyu.edu, <http://www.aaronrkaufman.com/>.

[‡]Professor, Charles and Louise Travers Department of Political Science, University of California, Berkeley. glenz@berkeley.edu, <https://gabriellenz.me/>.

Citizens often know little about their representatives' actions in office, leaving many scholars pessimistic about citizens' potential to hold their representatives accountable (e.g., Achen and Bartels 2016; Tausanovitch and Warshaw 2018).

An influential response to this pessimism is that citizens use cues from special interest groups (SIGs) about their representatives, such as SIG ratings or endorsements, as heuristics to infer their representatives' actions and hold them accountable. For example, if citizens who support raising taxes on the wealthy see that the anti-tax Americans for Prosperity has endorsed their representative, the literature suggests that these pro-tax citizens should infer that their representatives are anti-tax and so be less likely to support them. In Appendix B.2, we quote over two dozen studies that summarize the literature as demonstrating that voters commonly use SIG cues as a helpful heuristic to more accurately infer their representatives' positions and thus hold their representatives accountable. For example, Druckman, Kifer and Parkin (2020) review the literature as demonstrating that SIG cues are “a common method by which citizens infer [candidates'] issue positions” (p. 5).

It would bode well for accountability if citizens use SIG cues to make accurate inferences about their representatives' actions: SIG cues are ubiquitous, appearing in advertisements, press coverage, candidate websites, and voter guides. For example, Druckman, Kifer and Parkin (2020) find that Congressional incumbents' campaign websites feature over 10 SIG endorsements on average. As another example, in an analysis of the language candidates use to sell themselves in the one state's voter pamphlets, we find that 50% of candidates feature SIG support (see Appendix C).

Despite the widespread, influential view in the literature that citizens commonly use SIG cues to better infer their representatives' actions, we argue that SIG cues actually have the potential to *undermine* democratic accountability.

First, theories of heuristics note that citizens must know a SIG's stance in order to use its cues to infer their representatives' actions (McKelvey and Ordeshook 1985). Given low levels of general voter knowledge, we may not expect voters to be aware of many SIGs' stances. For instance, we

would not expect many voters to know whether Americans for Prosperity favors higher or lower taxes, even though it is one of the most active SIGs in contemporary American elections.¹ But would citizens who do not know what Americans for Prosperity stands for simply disregard its cues, as they are unable to interpret them?

Our central argument is that citizens do not disregard cues from SIGs they are unfamiliar with, but instead sometimes engage in projection, assuming a SIG they are unfamiliar with shares their own views and then misinterpreting its cues accordingly. We call this possibility *heuristic projection*. In this scenario, a pro-tax citizen unfamiliar with Americans for Prosperity would mistakenly assume that Americans for Prosperity shares their own pro-tax views, then wrongly conclude that Americans for Prosperity's endorsement means their representative also supports raising taxes. Consequently, this citizen may become more approving of their representative's performance in office after learning Americans for Prosperity endorsed them—even though the pro-tax citizen *should* conclude from the endorsement that their views are misaligned with their representative's. Such behavior would undermine, not foster, democratic accountability.

Although research has largely neglected this possibility, there are two reasons to suspect that citizens engage in heuristic projection when interpreting cues from unfamiliar SIGs. First, the psychological literature on projection finds that people often assume that others share their views (Ross, Greene and House 1977). Second, classic theories predict that interest groups often form to support policies favored by concentrated groups but opposed by many in the broader public (Olson 1971; Bawn et al. 2012). Even if SIGs primarily rate and “score” politicians for the audience of members who share their concentrated interests, SIGs should also recognize that many citizens do not share their interests, and so should seek to frustrate citizens' ability to use their cues as negative signals. To do so, SIGs may name and advertise themselves to appear to share widely-held interests, identities, or values. Indeed, real SIGs have vague names that reference popular

¹See <https://www.opensecrets.org/outsidespending/detail.php?cycle=2020&cmte=C00687103>.

values—e.g., “Americans for Prosperity”—that citizens may interpret in many ways. SIG strategy and citizen psychology could therefore result in *heuristic projection*, wherein citizens naively act as if unknown SIGs share their own views.

Scant existing empirical work has tested for heuristic projection. Moreover, despite many scholars’ assertions that SIG cues’ effects on citizens’ judgments are well-understood to be helpful (see Appendix B.2), there is surprisingly little empirical research on how citizens use SIG cues in forming their judgments of politicians at all. No existing studies experimentally evaluate the effect of real SIG cues on voter’s judgments about real politicians without introducing other confounding variables (see Appendix B.1). In contrast, most studies of how citizens use SIG cues focus on how citizens use them to form *issue* preferences, such as in referendums.² Appendix B.1 provides further review of the limited empirical literature on how citizens use SIG cues as heuristic to make inferences about representatives.

In this paper, we present new data about how SIG cues affect citizens’ judgments. Our data provides some of the most extensive tests to date of the standard view of SIG cues as helpful heuristics and several tests of our argument regarding heuristic projection. We draw this data from four original surveys. To maintain high levels of external validity, we always show respondents cues from real interest groups, how they rated respondents’ actual representatives, and ask about positions on real legislation (McDonald 2020)—usually with competing cues (party affiliations) present, as they are in real world electoral contexts.

Our data finds that voter ignorance of SIG stances is widespread: voters can rarely use SIG cues to form more accurate judgments and they engage in considerable heuristic projection. SIGs’ ratings and endorsements have long been assumed to improve electoral accountability by helping citizens make more accurate inferences about their representatives (see Appendix B.2). But our first set of findings suggest they are usually unlikely to do so, as citizens are unfamiliar with SIGs’

²Other studies also consider *other* cues voters might use, such as candidate gender or party (e.g., Dancey and Sheagley 2013).

positions and so rarely know how to interpret cues from even the most highly resourced SIGs (Studies 1 and 2a). However, our results suggest SIG cues are not simply benign signals that citizens therefore ignore: Citizens on average assume SIGs share their own views (Study 2b), and therefore that politicians who earn positive ratings from SIGs share their own views, too (Study 3). As a result, citizens are more likely to support their representative for re-election when they learn their representative earned a positive ratings from a SIG, even when they disagree with that SIG on policy (Study 4). Table OA1 reviews our studies and survey samples, described in more detail below. Appendix D presents data on our samples. In Appendix C, we show that the SIGs we include in our treatments include some of the most prominent SIGs in politics.

Appendix B.1 also contains further literature review, including a table comparing our study to other studies along several dimensions to illustrate the novelty of our work.

Our results suggest that, in combination, heuristic projection and interest group cues may undermine democratic accountability. Instead of helping citizens hold their representatives accountable, as in the traditional view of heuristics, SIG cues appear more likely to simply bolster interest group power.

Study 1: Voter Knowledge of Interest Group Policy Positions

For citizens to form accurate perceptions of their representatives' policy stances from interest group cues, they must have some sense of those interest groups' policy stances. Our first two studies therefore examine voter knowledge about the policy positions of SIGs. According to the traditional view of heuristics as helpful, we should see some signs of such knowledge. However, a precondition for heuristic projection is that many voters lack such knowledge.

Our first study probes the perceptions of 1,181 respondents interviewed as part of a survey of Californians recruited by Survey Sampling International (see Appendix D for information on representativeness). We asked respondents to guess whether interest groups would be likely to

support or oppose items of major legislation. We chose seven bills paired with related, highly prominent interest groups,³ as detailed in Table 1a. We asked “Did [group] support [policy text]?” For example, “Did the League of Conservation Voters (LCV) support building the Keystone XL oil pipeline?” (see Appendix E for wording). Respondents could answer “yes,” “no,” “did not take a position,” or “don’t know.”

Table 1: Study 1 Stimuli and Results

(a) The issue area, interest group, House of Representatives bill identifier, survey prompt, and Congressional vote breakdowns for the seven issues used in Study 1

Issue	Interest Group	Vote	As shown to respondent: Did [interest group] support ...	Dems in favor	Reps in favor
Abortion	NARAL Pro-Choice America	HV 292 2011	banning federal funding for elective abortions	8.3%	97.5%
Energy	Chamber of Commerce, League of Conservation Voters	HV 650 2011	building the new Keystone XL oil pipeline	24.4%	96.7%
Trade	AFL-CIO	HV 283 2011	the free trade agreement with Korea	30.7%	90.5%
Environment	League of Conservation Citizens	HV 249 2011	preventing the Environmental Protection Agency from regulating greenhouse gases	9.9%	97.9%
Guns	NRA	HV 842 2011	allowing individuals to carry concealed firearms in all states if they have a licence in one state	21.9%	94.6%
Healthcare	Chamber of Commerce	HV 14 2011	universal healthcare	1.6%	100%
Taxes	Club for Growth	No Vote	a tax increase on individuals with \$400,000 or more in income to avert the fiscal cliff?	NA	NA

(b) Can citizens guess the positions SIGs take on key bills?

	AFL-CIO	Club for Growth	Chamber of Commerce	LCV (EPA)	LCV (Pipeline)	NARAL Pro-Choice America	NRA
Correct %	10	10	18	11	14	21	36
DK %	71	73	63	72	66	65	45
Correct % exclud. DK	35	36	49	40	41	59	66
N	522	470	502	512	527	507	488

Notes: $N = 3,532$. 1,181 respondents guessed which side of major legislation prominent interest groups supported for three of the seven issue-group pairs. LCV = League of Conservation Voters.

Table 1b shows that only 10-36% of respondents correctly guess SIGs’ issue stances. There is not a single SIG that the majority of respondents accurately perceive. For every single SIG, the largest group of respondents report that they do not know what the group’s position is. The minority of respondents who hazard a guess do so correctly only 49% of the time on average,

³We selected prominent interest groups as those with significant campaign spending, consistent ratings for all Members of Congress, and frequent mentions by candidates (see Appendix C).

in line with what would be expected by random chance. We only see some signs of respondent knowledge about the NRA and “NARAL Pro-Choice America,” although even for these groups the vast majority of respondents either say they do not know the group or get the answer wrong. Despite that these groups are among the most active in American politics (as judged by their budgets), a majority of those who do say they know these group’s stances actually guess them incorrectly.

Studies 2a and 2b: Voter Knowledge of Special Interest Groups’ Ideologies

One potential alternative explanation to Study 1’s findings is that voters may not know interest group’s specific policy stances but could be familiar with or infer their general ideological orientations. Study 2a examines this possibility. In Study 2b, we conduct the first test of our pathological alternative account, heuristic projection, by testing whether voters project their own ideologies onto interest groups.

Studies 2a and 2b also expand the number of interest groups we study. To consider additional groups citizens might be exposed to advertising from or be aware of, we selected the top 45 SIGs in terms of 2016 total campaign receipts.⁴ As we selected the SIGs most active in campaigns, these SIGs should represent the easiest test for the traditional view of heuristics. Consistent with the traditional perspective on heuristics (see Appendix B.2), campaign finance scholars and the U.S. Supreme Court itself (in *Buckley v. Valeo*) have speculated that campaign spending and contributions from SIGs active in campaigns could serve as particularly useful heuristics for voters seeking to infer what politicians stand for from the interest groups who support them (for a review, see Wood 2018). But do voters know enough about even the most active SIGs to do so?

⁴We gathered the receipt information from an updated version of the data from Bonica (2014), excluding SIGs that were specific to the 2016 election or did not have a website.

Study 2a: Ideological Perceptions of 45 Special Interest Groups Active in Campaigns

To see whether the public knows or can infer the ideological orientation of these interest groups, we conducted a demographically representative survey of US residents with Lucid (Coppock and McClellan 2019) in October 2017. (See Appendix D for information about representativeness.) We asked 3,178 Americans, “How liberal or conservative is [interest group]?” and provided seven response options from “extremely liberal” to “extremely conservative,” and a “don’t know” option. We asked each respondent about two randomly chosen groups.⁵ To measure these SIGs’ actual ideologies, we use Campaign Finance scores (CFscores) (Bonica 2014). For ease of interpretation and to avoid making strong assumptions about the comparability of the CFscores and 7-point ideological scales, we coarsen both the SIGs’ CFscores and the 7-point ideological scale into conservative, moderate, and liberal. See Appendix F for discussion of the coding rules.

Consistent with Study 1, we find only low levels of knowledge about these SIGs. First, as Figure 1a shows, the vast majority of these SIGs are either conservative or liberal. However, Figure 1b shows that respondents place under half of SIGs as either conservative or liberal, with respondents indicating many of these SIGs are moderate and, most often, simply skipping the questions (despite a request for a response).

Second, respondents can rarely correctly identify groups’ ideological leanings. Figures 1c and 1d show respondents’ placements of liberal and conservative SIGs, respectively. Respondents are only about 10 percentage points more likely to rate liberal groups as liberal than conservative groups as liberal. About 40% skipped the question and another 15% gave midpoint responses.

Appendix Figure OA1 shows the relationship between CFscore and average ideological placement by respondents for all 45 SIGs. As groups become more conservative, respondent perceptions become slightly more conservative as well, but the relationship is weak.

⁵We lose 87 respondents who dropped out of the survey prior to answering these questions and an additional 2 respondents who did not provide an ideological self-placement.

Figure 1: Study 2a Results—Limited Voter Knowledge of SIG Ideology

(a) Actual SIG Ideology for 45 SIGs In Study 7

(b) Respondent Placements of SIG Ideology

(c) Respondent Placements of SIG Ideology—Conservative SIGs Only

(d) Respondent Placements of SIG Ideology—Liberal SIGs Only

Note: 3,178 respondents each rated two interest groups. Given the large sample size, the standard errors are very small for the estimates in panels b-d, about 1%, so we omit confidence intervals.

What little knowledge of SIG ideologies we do find is driven largely by respondents with high political knowledge when placing groups with clear names, such as the National Pro-Life Alliance and Gun Owners of America. We present this result and report on the correlates of SIG ideological knowledge in Appendix F.

Overall, Study 2a’s findings are again consistent with our expectations: only a small number of highly knowledgeable citizens are familiar with only a very small number of extremely prominent or clearly named groups (e.g., the NRA) and citizen ignorance of SIGs otherwise—even in the case of the SIGs most active in electoral campaigns and therefore whose cues voters are most often exposed to in the real world.

Study 2b: Projection in Ideological Perceptions of 45 Special Interest Groups

Next, we conduct the first test of heuristic projection, our pathological alternative to the traditional view about interest group cues as helpful: that citizens project their own views onto SIGs. For instance, when a group names itself “Americans for Prosperity,” it may be hoping that citizens will assume that the group shares their values. We conduct our first test of this hypothesis using the data and SIGs from Study 2a.

Figure 2a shows how respondents placed the 45 SIGs from Study 2b, but now grouped by respondents’ *own* ideological self-placements. The results in Figure 2a show that respondents appear to project their own ideology onto the interest groups. Respondents all rated the same set of SIGs, yet, among liberal respondents, the most common placement given for SIGs was liberal; among moderate respondents, the most common placement given for SIGs was moderate; and, among conservative respondents, the most common placement given for SIGs was conservative. All three of these patterns are consistent with widespread projection.

To break down these perceptions by the actual ideology of the SIGs, Figures 2b and 2c show how respondents perceived SIGs that were actually conservative and actually liberal, respectively. Crucially, Figures 2b and 2c raise doubt that voters are able to use positive cues from misaligned groups as negative signals. In particular, Figure 2b shows that liberals are more likely to see conservative SIGs as either liberal or moderate rather than conservative (leftmost panel), and Figure 2c shows that conservatives are more likely to see liberal SIGs as either conservative or moderate rather than liberal (rightmost panel). Projection essentially cancels out the modicum of knowledge

Figure 2: Study 2b Results—Voters Project Their Own Ideology onto Special Interest Groups

Note: $N = 3,178$ respondents each rated two interest groups. Given the large sample size, the standard errors are very small, about 1%, so we omit confidence intervals.

respondents had about these groups, making them unable to recognize, on average, that opposition groups are in fact opposition groups. Figure OA2 shows this projection across the full range of respondents' self-placement on the 7-point ideological scale.

This represents our first evidence consistent with heuristic projection, and raises the possibility that citizens might misinterpret ratings from misaligned interest groups. Our next studies extend these descriptive findings with experiments that allow us to study such consequences.

Studies 3a and 3b: What Citizens Infer About Representatives from SIG Cues

So far, we have shown that voter knowledge about SIGs is very limited, suggesting voters rarely know how to interpret a SIG's cues about their representative. In the next set of studies, we examine the consequences of this projection for citizens' perceptions of their representatives. In our experiments, we provide citizens with actual interest group ratings of their actual representatives in Congress and examine how these cues affect their perceptions of their own actual members of Congress (MCs). To what extent do citizens react consistently with the traditional view of SIG cues as helpful heuristics, which would predict that these cues would help them form more accurate inferences, or at worst make no difference? And to what extent do they react consistently with our pathological alternative, heuristic projection, by acting as SIGs hope citizens do?

In this section and the following sections, we present the results of two surveys: a first survey and a replication. The first survey is a national sample of 3,958 respondents recruited through Sample Strategies in February 2018. We had not preregistered our tests for heuristic projection before conducting this survey, so we conducted a replication survey where we did preregister them (see Appendix H). The replication survey is a national sample of 3,892 respondents recruited through Lucid in March 2020. We refer to the original survey as sample (i) and the replication as sample (ii), and for transparency we show all our results for both. See Appendix D for statistics on

representativeness of both samples. We also designed these studies to minimize missing data from don't know responses and other sources, as we describe below.

In both studies, we presented respondents with an interest group rating of their representative. Using Project Vote Smart, we identified the SIGs who rated the largest number of sitting MCs. We paired each interest group with a key vote in the 2015-16 and 2017-18 Congressional sessions that closely connected to the groups main focus. Table OA2 presents the roll call-SIG pairs. In both studies, we showed respondents the title of every bill as well as short summaries we prepared, also shown in Table OA2.⁶

To implement this experiment, we first asked respondents how they would vote on eight or nine of the 17 bills (to reduce survey fatigue). We used the following language: "If you were in Congress would you vote FOR or AGAINST each of the following?"⁷

We used ZIP Codes provided by the survey firms to determine each respondent's actual representative in the US House. In the the original study (sample (i)), we assigned 75% to a control group who did not see SIG ratings of their MC and assigned 25% to see ratings. In the replication study (sample (ii)), we assigned everyone to see a SIG rating; there was no pure control group that saw no rating.

In both studies, we provided respondents with the name and party of their member of Congress.⁸ For those assigned to see ratings, we then showed a randomly selected rating as follows:

Various groups often provide "ratings" or "scorecards" of how much they approve the votes every Member of Congress has taken. We have compiled the "scorecards" of many such groups and have selected one at random to show you:

[Interest group] rated [MC name] at [score] (out of 100).

⁶The SIG ratings were typically highly predictive of how MCs actually voted in this study, even conditional on MC party. One exception is the "National Association of Police Organizations," which, as shown in Figure OA4, gave positive ratings to essentially every sitting MC. Appendix Figure OA4 shows a histogram of all the ratings we presented by interest group.

⁷Appendix Figure OA3 presents a flowchart for this study. We do not provide an "abstain" option, but, as we describe below, there is no missing data due to the way we designed the randomization.

⁸Appendix G shows a supplementary study finding that providing MC partisanship does not appear to affect the results.

We only assigned voters to see ratings from SIGs where their MC had cast either a “yes” or “no” vote on the paired bill (i.e., abstentions are not eligible).

To confirm that innumeracy did not drive the findings, we next asked respondents whether they thought the rating meant the SIG usually “agreed or disagreed” with how their MC “voted in Congress.” As shown in Appendix Figure OA5, respondents overwhelmingly understood that positive ratings indicate the SIGs usually agree with the MC and the opposite for negative ratings.

Finally, we next asked respondents how they thought their MC voted on eight or nine bills Congress had voted on. We use the following language: “If you had to guess, how do you think [MC name] voted on these bills?” For each bill, respondents could answer that their MC voted “yes” or “no” (with no “don’t know” option).

Studies 3a(i) & 3a(ii): Do Interest Group Ratings Help Citizens More Accurately Perceive their Representatives’ Votes?

According to the traditional view of heuristics, when a voter learns about an interest group’s rating of a voter’s MC, that should on average help them form more accurate inferences about the ideological and policy stances of their MC. In Studies 3a(i) and 3a(ii), we investigate whether interest group ratings increase the accuracy with which voters perceive their MC’s votes on the issue corresponding with the rating we showed them. For example, does seeing that the League of Conservation Voters gave their representative a perfect 100/100 rating help respondents make more accurate inferences about whether their member voted for or against a bill that allows for spraying pesticides near waterways without a permit? As described above, Study 3a(i) was conducted in a first sample and Study 3a(ii) was conducted on a new sample to replicate its results.

After we showed respondents the interest group rating, we asked them how they thought their MC voted on each of the same bills, using the wording given above. The dependent variable for Studies 3a(i) and 3a(ii) is whether respondents accurately identified their MC’s actual votes on

these questions. No respondents skipped and we provided no “don’t know” option so there is no missing data.

In the control group in study 3a(i), respondents shown no SIG rating correctly identified 68% of their MC’s votes on average.⁹

To examine both between- and within-subject variation, our unit of analysis is the respondent-issue pair. The experimental variation in these studies arises from random assignment to see a SIG rating or no rating (Study 3a(i)) and from *which* SIG rating respondents were randomly assigned to be shown (in both Studies 3a(i) and 3a(ii)). A respondent-issue pair is in the treatment group if we assigned a respondent to see a SIG rating *relevant to that issue*, and in the control group otherwise. This means that the probability of assignment to treatment varies across respondent-issue observations because respondents’ MCs varied in how many SIGs rated them (and we never showed respondents missing SIG ratings). We therefore include fixed effects for the number of SIG ratings available for each MC and that we could show respondents in their district.¹⁰

Figure 3 presents the OLS estimates for whether showing respondents an interest group rating helped respondents guess their MC’s votes on a corresponding issue more accurately. The dependent variable is set to 1 if the respondent correctly identified their MC’s vote on the issue corresponding to that interest group (e.g., for the LCV, the pesticide issue), and a 0 if their perception was inaccurate. The top panel shows the estimates from the original study (i) and the bottom panel shows the estimates from our replication (ii). In the original study, on average, citizens are actually 0.3 percentage points *less* accurate in identifying their MC’s vote on an issue when we showed them a rating from a relevant SIG, a difference statistically indistinguishable from zero

⁹Random guessing would yield a 50% correct rate. As described, respondents were always shown their representative’s party, as is the case in most real world settings; many respondents likely inferred their MC’s votes from MC’s party. Appendix G shows a supplementary study finding that providing MC partisanship does not appear to affect the results.

¹⁰Appendix Figure OA3 provides an overview of the experimental design. We only include respondent-issue observations for issues for which a SIG rating for a respondent’s MC existed and therefore could have been shown. Respondents in the treatment group were only eligible to be shown ratings from SIGs that actually rated their MCs. As a result, respondents differed in their probabilities of seeing each SIG rating. The fixed effects ensure that we conduct all comparisons among respondents who had the same probability of seeing each SIG rating.

(SE = 1.5 percentage points, $t = -0.21$). In the replication study, citizens are 1.7 percentage points more accurate, a small effect but one that is statistically significant at conventional levels because the study is so well powered (SE = 0.82 percentage points, $t = 2.07$). This finding is almost entirely driven by the Human Rights Campaign, an LGBT non-profit.

We find similar results for individuals high in political knowledge. In the original study, citizens who answered all four questions correctly on a political-knowledge battery are only 2.6 percentage points more accurate when guessing an MC vote related to the SIG rating shown, which is both substantively small and statistically insignificant (SE = 2.6 percentage points, $t = 1.0$). In the replication, they are only 3.6 percentage points more accurate (SE = 2.1 percentage points, $t = 1.7$). These small effects are not driven by a ceiling effect, as knowledge of roll calls was 77% for high knowledge respondents in the original study, consistent with 54% possessing actual knowledge when correcting for guessing. The corresponding percentages for the replication study are 74% and 48%, respectively.

Overall, these studies provide little support for the traditional view of heuristics as improving voters' inferences about their representatives. We provided voters with highly informative cues about how their MCs voted, but these cues had only the slightest of effects on accuracy. These results were consistent for well-known interest groups and for high-knowledge respondents. They held even though we provided respondents with their representatives' party affiliations. In summary, after conducting one of the first investigations into how citizens actually do interpret interest group ratings of politicians (see Appendix B.1), we find that there is not much evidence for the literature's widespread view that SIG cues could be "a common method by which citizens infer...issue positions" (Druckman, Kifer and Parkin 2020, p. 5), at least when it comes to ratings from the most active groups on important Congressional legislation.

Figure 3: Studies 3a(i) & 3a(ii)—Effect of Showing Each Interest Group’s Heuristic on Accurate Perception of MC’s Vote

(a) Treatment Effect of Seeing a SIG Rating on Accurate Perception of MC Vote in Original Study (3a(i))

(b) Treatment Effect of Seeing a SIG Rating on Accurate Perception of MC’s Vote in Replication Study (3a(ii))

Notes: Each coefficient shows the treatment effect estimate from one regression. Interest-group specific estimates come from regressions subsetting to issue-respondent observations for each interest group. Overall estimates are from regressions with all issue-respondent observations. All regressions include the controls and fixed effects mentioned in the text.

Studies 3b(i) and 3b(ii): Respondents Interpret Positive Interest Group Ratings as a Signal Their Member of Congress Agrees With Them

Study 3a suggests that the traditional view of heuristics does not accurately describe how interest group ratings affect voters' perceptions of how their MCs voted in almost all cases. Our theory of heuristic projection suggests a different prediction. Under heuristic projection, citizens should respond as if SIGs are aligned with their own issue preferences, inferring that their MC agrees with their own views on more issues when they see a positive rating from any SIG, and inferring that their MC *disagrees* with their own views on more issues when they see a negative rating from any SIG. When the conservative interest group Americans for Prosperity rates a candidate highly, for instance, heuristic projection would predict that even liberal voters would naively assume that this means their MC must generally agree with their own views, because the voter also supports prosperity—who doesn't?

In this section, we test whether seeing positive interest group ratings leads voters to assume that their MC voted as respondents said they would have on 17 major bills, and whether negative ratings have the opposite effect. We had not preregistered this prediction before conducting survey (i), so we report the finding in both sample (i) and a preregistered replication (sample (ii)).

The dependent variable in Study 3b(i) and 3b(ii) is whether respondents think their MC's votes agree with *their own* views. We measure this by asking respondents' for their perceptions of how their MC voted just after respondents saw the SIG ratings, similar to studies 3a(i) and 3a(ii). However, instead of comparing respondents' perceptions of how their MC voted to *reality*, as in studies 3a(i) and 3a(ii), we compare each respondent's perceptions of how their MC voted to *that respondent's own views* on these same issues (which we asked at the beginning of the survey)—i.e., whether voters think their MC agrees with *them*. We did not provide a “don't know” option and no respondents skipped so there is no missing data on this variable.

To test for heuristic projection, Table 2 presents regressions at the respondent level where the

outcome is the number of issues where citizens guessed that their actual member of Congress cast a vote congruent with their own issue preference (as measured pre-treatment). Table 2a shows the estimates for the original study (sample (i)). The treatment variable in the regression is whether the actual SIG rating that we showed to the respondent was positive (i.e., >50), negative (i.e., ≤ 50), or whether no rating was shown—we code these 1, 0, and 0.5, respectively. To increase precision, we control for the number of issues where voters actually agree with their MC. We also control for voter party, MC party, and the interaction, which we do not show for simplicity. Excluding these controls leaves the estimates essentially unchanged.¹¹

Table 2a finds that when voters saw that a SIG rated their MC positively, they inferred their MC’s position matched *their own*. Model 1 shows that the estimated causal effect of being shown a positive instead of negative SIG rating is an approximately 0.36 vote increase in respondents’ perceptions of the number of votes (eight or nine) that one’s MC cast that agreed with one’s own views ($p < 0.01$). This is equivalent to what we would observe if seeing a positive instead of negative SIG rating caused more than *one in three* respondents to perceive that their MC *agreed with them* on an additional issue. This large magnitude is in stark contrast to the very small estimates from Study 3(a), where we found, even in the subset of Study 3(a)ii with the strongest effects, that only roughly *1 in 34 people* had a more *accurate* view of how their member actually voted.

Models 2 and 3 show a version of Model 1 that is estimated separately by whether the voter and the MC are of the same party; we find the effects are if anything larger in cases when citizens are forming perception of outparty MCs, suggesting that our findings are not driven by motivated reasoning in favor of copartisan MCs. The point estimate for the effect on perceptions of outparty MCs is equivalent to what we would observe if nearly *half* of respondents thought they agreed

¹¹The experimental variation in Study 3b(i) comes from choosing to show a SIG rating and from randomly selecting which SIG rating to show. Since MCs vary in how many positive SIG ratings they receive, the chance of being shown a positive rating varies non-randomly across respondents. To ensure our analysis only captures variation in treatment from random assignment, we include fixed effects for the number of positive ratings a voter’s MC received. These fixed effects ensure that we are only comparing individuals who had the same probability of being shown positive vs. negative SIG ratings. Since we asked some respondents about eight issues and others about nine, we include fixed effects for this as well.

with their MC on an additional issue after they learned that their MC earned a positive SIG rating. Surprisingly, these effects are almost as large as the descriptive relationship between the number of issues where citizens and MCs actually agree; in other words, MCs may be able to lead their constituents to think their MC agrees with them just as effectively by earning positive ratings from SIGs as by actually voting in line with their constituents' views.

Table 2b shows estimates for our preregistered replication. Across Models 1-3, we see that it closely replicates the original study but with noticeably more precision (smaller standard errors). As we pre-registered, we include the same controls as in the original study plus additional pretreatment controls we included on the survey to improve precision.¹² Excluding them leaves the results unchanged.

Appendix Figure OA6 shows the results graphically by whether the group was aligned or misaligned with the voter and by whether the respondent and their member of Congress are of the same party. These results are less precise, but the results do not clearly depend on respondent party or by whether the group is aligned or misaligned. Consistent with Study 3a's findings, we never see much evidence that respondents infer that positive ratings from misaligned groups signal that their member of Congress agrees with them less, not more.

In the traditional view of heuristics, interest group ratings help voters form more accurate views of their representatives. Study 3a(i) and 3a(ii) found only very limited evidence that they do so. Interest groups, however, would prefer something else entirely: heuristic projection, wherein voters simply perceive their representatives as casting votes they agree with when their representatives receive positive ratings from a SIG, regardless of what the SIG's rating actually signals. Study 3b(i) and 3b(ii) found evidence for exactly this.

¹²These are left-right ideological position; 2016 US presidential and US House generic vote choice; favorability rating of Donald Trump, the US Congress, and police officers; Black, Hispanic, Asian, American Indian, or other identification; ratings of the US economy in the future and in the present; personal financial situation; Trump favorability (asked a second time in the pretreatment survey); presidential approval; gender; and right-wing authoritarianism (four item index). We interact all these controls with MC party.

Table 2: Studies 3b(i) & 3b(ii)—Effect of SIG Rating on Perception that Member of Congress Cast Congruent Votes

(a) Original Study 3b(i)			
	Model 1	Model 2 (Same Party MC)	Model 3 (Different Party MC)
Rating Treatment (0 = SIG Rating ≤ 50 , 0.5 = No SIG Rating Shown, 1 = SIG Rating > 50)	0.360 ** (0.120)	0.311 * (0.154)	0.458 * (0.222)
Number of Issues Where Voter <i>Actually</i> Shares MC Issue Preference	0.472 *** (0.017)	0.355 *** (0.022)	0.608 *** (0.033)
<i>N</i>	3940	2041	1348
<i>R</i> ²	0.412	0.167	0.281
Other Controls	✓	✓	✓
Fixed Effects for Possible Treatments?	✓	✓	✓
Fixed Effect for Eight vs. Nine Issues?	✓	✓	✓
(b) Replication Study 3b(ii)			
	Model 1	Model 2 (Same Party MC)	Model 3 (Different Party MC)
Rating Treatment (0 = SIG Rating ≤ 50 , 1 = SIG Rating > 50)	0.378 *** (0.073)	0.353 *** (0.095)	0.301 * (0.132)
Number of Issues Where Voter <i>Actually</i> Shares MC Issue Preference	0.245 *** (0.019)	0.219 *** (0.026)	0.321 *** (0.034)
<i>N</i>	3892	1997	1291
<i>R</i> ²	0.286	0.185	0.282
Other Pre-Registered Controls	✓	✓	✓
Fixed Effects for Possible Treatments?	✓	✓	✓
Fixed Effect for Eight vs. Nine Issues?	✓	✓	✓

Notes: The dependent variable in all regressions is the number of issues on which respondents indicated they thought their MC cast a vote that matched their own issue preference. We measured respondents' own issue preferences pre-treatment. Each column shows a separate regression model. Standard errors in parentheses. For the original study, "other controls" includes MC party, respondent party, and their interaction. For the replication study, "other controls" includes these, their interactions with political party and MC party, and the controls listed in footnote 12.

† indicates significance at $p < 0.10$, * indicates significance at $p < 0.05$, ** indicates significance at $p < 0.01$, *** indicates significance at $p < 0.001$.

Studies 4(i) & 4(ii): Perverse Consequences of Interest Group Ratings on Voter's Evaluations of their Representatives

Electoral accountability ultimately manifests when citizens form overall judgments about how well their representatives are representing them and decide how to vote in elections. What do our findings indicate for how citizens will use interest group heuristics when making their voting decisions? In the traditional view of heuristics, interest groups should help voters support candidates who share their policy views and oppose those who do not share them. By contrast, under heuristic projection, interest groups cues can distort voters' choices, leading them to support politicians even though they *disagree* with their policy stances—because they see a politician received a positive SIG rating for doing so. For instance, a pro-tax voter might hear that their representative received a 100% rating from the anti-tax SIG Americans for Prosperity and not only erroneously conclude that their representative must favor increasing taxes, too, but also decide this means they should be re-elected.

We test this possibility in Study 4, where we examine how interest group cues affect approval of members of Congress using the same two samples as in Studies 3a and 3b. To denote the fact that we present data from two different samples with the same research design, we denote our studies 4(i) and 4(ii) for samples (i) and (ii), respectively.

To measure the dependent variable, after showing participants the SIG rating in Studies 3a & 3b, we also asked them a series of three MC approval questions: an approval question, a favorability question, and a generic ballot question.¹³ We combine these into an index standardized to standard deviation one, consistent with our preregistration (see Appendix H). This *MC Support Scale* is our dependent variable in Studies 4(i) & 4(ii).

¹³In study 4(i), respondents in the pure control condition were then exposed to material for another project, so we were unable to include control participants in this comparison. See Appendix Figure OA3 for an overview of the design. The experimental variation in Study 4 is from whether respondents were randomly assigned to see negative vs. positive ratings, given that respondents could be shown either.

To understand how SIG cues affect citizens' approval of their MCs, we define two treatment variables. Our first treatment variable captures the predictions of the traditional view of heuristics. We call this variable *SIG Rating Signals MC Matches Voter Issue Preference*, and code it as 1 if we showed the respondent a SIG rating that sends a signal that their MC cast a vote that matches the respondent's issue preference, which was asked at the beginning of the survey prior to treatment. This variable would have a value of 1 if a respondent saw a positive rating from a SIG *aligned* on the issue (e.g., an environmental regulation supporter seeing a positive rating from the League of Conservation Voters) or a negative rating from a SIG *misaligned* on the issue (e.g., a gun control supporter seeing a negative rating from the NRA). We instead set this treatment variable to 0 if the respondent was shown a rating that would send a signal that the respondent's MC cast a vote misaligned with the respondent's issue preference. A negative rating from an aligned SIG (e.g., an environmental regulation supporter seeing a negative rating from the League of Conservation Voters) or a positive rating from a misaligned MC (e.g., a gun control supporter seeing a positive rating from the NRA) would send such a signal.¹⁴ This variable captures the predictions of the traditional view of heuristics: voters should approve of their MC more when they see a rating that sends a signal their MC is aligned rather than misaligned with their own issue preferences.

Our second treatment variable captures the predictions of our theory, heuristic projection. We call this variable *SIG Rating Supportive*, and code it as 1 if the rating is 51 or above and 0 if the rating is 50 or below, regardless of whether the SIG is aligned with the respondent's own issue preference or not. This variable captures the predictions of heuristic projection: voters should express more approval for their MC when they see that a positive interest group rating, regardless of the signal the rating does in fact send about whether their MC is representing their views.

Our design generates random variation in both of these treatment variables. Table 3 summarizes these four treatment possibilities. Because most respondents have a mix of liberal and conservative

¹⁴Consistent with our pre-analysis plan (see Appendix H), we code all ratings 50 and below as negative and ratings 51 and above as positive. As shown in Appendix Figure OA4, the ratings are largely bimodal. Only 0.5% of ratings are exactly 50.

views across issues, our random assignment of which SIG rating to show produces random variation at the respondent level in whether we showed respondents a SIG rating of the four possible types shown in Table 3. This is what allows us to test whether voters can use positive cues from misaligned groups as negative signals: we can compare how citizens evaluate their representatives when they are shown positive ratings of their representatives from misaligned groups to when they see negative ratings of their representatives from misaligned groups.

Table 3: Treatments in Studies 4(i) & 4(ii)

		SIG Rating Supportive =	
		0	1
SIG Rating Signals MC Matches Voter Issue Preference =	0	Negative rating from aligned SIG	Positive rating from misaligned SIG
	1	Negative rating from misaligned SIG	Positive rating from aligned SIG

Notes: A SIG is coded as aligned if that SIG's issue preference matches the voter's own issue preference as measured at the beginning of the survey. For example, an individual who favors gun control would be coded as misaligned with the NRA.

Table 4a presents the results in sample (i). To estimate the effect of SIG ratings on MC approval, we use regression to compare individuals randomly assigned to be shown SIG ratings that happened to send different signals and which are supportive and unsupportive. To ensure we only compare respondents with identical probabilities of receiving each of these four treatments, we include fixed effects for the probability that respondents would receive each distinct set of four treatment probabilities described in Table 3. To increase precision, we also include party identification as a control, MC party, and their interaction.

Column 1 shows that showing respondents a SIG rating that *should* send the voter a signal that their representative shares instead of does not share their views has no detectable effect on their support for their MC. That is, when voters see a SIG rating that indicates their MC disagrees with

Table 4: Studies 4(i) & 4(ii)—Effect of SIG Rating Information on Support for Member of Congress

(a) Original Study 4(i)					
	Model 1	Model 2	Model 3	Model 4	Model 5
Shown SIG Rating Signals MC Aligns Voter Issue Preference (0 = MC Misaligned / 1 = MC Aligned)	-0.05 (0.05)		-0.04 (0.06)	-0.04 (0.06)	-0.04 (0.06)
Shown SIG Rating Is Supportive (0 = Unsupportive / 1 = Supportive)		0.12 * (0.05)	0.11 * (0.05)	0.11 * (0.05)	0.09 (0.05)
<i>N</i>	980	980	980	781	725
<i>R</i> ²	0.54	0.53	0.65	0.64	0.61
Other Controls	✓	✓	✓	✓	✓
Fixed Effects for Possible Treatments?	✓	✓	✓	✓	✓
Fixed Effect for Eight vs. Nine Issues?	✓	✓	✓	✓	✓

(b) Replication Study 4(ii)					
	Model 1	Model 2	Model 3	Model 4	Model 5
Shown SIG Rating Signals MC Aligned with Voter Issue Preference (0 = MC Not Aligned / 1 = MC Misaligned)	0.03 (0.03)		0.04 (0.03)	0.04 (0.03)	0.04 (0.03)
Shown SIG Rating Is Supportive (0 = Unsupportive / 1 = Supportive)		0.15 *** (0.02)	0.15 *** (0.03)	0.15 *** (0.03)	0.15 *** (0.03)
<i>N</i>	3892	3892	3892	3241	3080
<i>R</i> ²	0.55	0.56	0.59	0.59	0.57
Other Controls	✓	✓	✓	✓	✓
Fixed Effects for Possible Treatments?	✓	✓	✓	✓	✓
Fixed Effect for Eight vs. Nine Issues?	✓	✓	✓	✓	✓

Notes: The dependent variable in all regressions is the preregistered MC Approval Scale, rescaled to have standard deviation one. Each column shows a separate regression. All models include fixed effects for each distinct set of treatment probabilities, which ensures that we only conduct comparisons between units with the same probability of assignment to all four treatments. Columns 1-3 use all respondents. Column 4 excludes respondents had no probability of receiving an aligned or unaligned signal or no probability of receiving a supportive or unsupportive signal (because of the interest group ratings available for their MC). To ensure that such individuals do not drive the results, Column 5 applies an even stricter exclusion rule, retaining only respondents who could have received all four of these treatments. For the original study, “other controls” includes MC party, respondent party, and their interaction. For the replication study, “other controls” includes these are included and we also included numerous other pretreatment controls and their interactions with political party and MC party (see footnote 12).

** indicates significance at $p < 0.05$, ** indicates significance at $p < 0.01$.*

them on an issue, voters are no less approving of their MC.¹⁵ Column 2, however, shows that seeing supportive instead of unsupportive SIG ratings in fact does boost citizens' support. That is, while it does not seem to matter to voters whether SIG ratings indicate that their MC agrees with their own views, Column 2's result shows that voters *do* reward MCs for agreeing with SIGs. Column 3 shows that this finding survives when both coefficients are present in the same regression. Some respondents had no chance of seeing an aligned or unaligned signal or no probability of receiving a supportive or unsupportive signal because of the interest group ratings available for their MC. Column 4 excludes these individuals from the analysis and finds similar results. Column 5 applies an even stricter exclusion rule, retaining only respondents who could have received all four of these treatments. As the table shows, results remain largely similar, though less precisely estimated.

Table 4b shows estimates for our preregistered replication, Study 4(ii). Across Models 1-5, we see that it closely replicates the original study but with smaller standard errors. We preregistered the analyses in each of the columns and they include the same controls as in the original study plus additional pretreatment controls interacted with MC party (see footnote 12 for the list; excluding controls leaves the results unchanged). Regardless of the specification, the estimates imply that seeing a positive rating from an interest group increases voter support of the MC by 0.15 standard deviations, a highly statistically significant effect in line with our theory of heuristic projection. By comparison, Democrats and Republicans differ by about one standard deviation on this scale when evaluating representatives of a given party. However, contrary to the expectations of the traditional account of how voters use SIG cues as heuristics, there is no detectable effect of whether the SIG rating signals that the MC's position matches the voter's views.

Figure 4 shows these results visually. In both the original study and our replication study, and for both aligned and misaligned groups, we see that respondents approved of their MC more

¹⁵For a separate project, we showed the control group how their Members of Congress actually voted on these issues. That project finds very large effects on the Member support scale of providing this information, indicating that our null results here are not due to citizens being indifferent to the position information these interest group ratings imply.

when they saw positive instead of negative SIG ratings. Crucially, this is true even in the case of ratings from misaligned groups. The traditional view of heuristics predicts that voters should use positive cues from misaligned groups as negative signals about politicians. We find no evidence this is the case. It might not be surprising were voters to simply disregard signals from misaligned groups because they do not know how to interpret them. Yet what we find is evidence for the novel possibility we raised: heuristic projection. Voters act as if all special interest groups are in fact aligned with their views, acting as if positive ratings from misaligned groups represent a positive signal about their representatives.

Figure 4: Studies 4(i) and 4(ii)—Mean of MC Approval Scale by Experimental Condition

Notes: The Figure shows predicted probabilities from a regression model identical to the models in Model 3 of Table 4 but with dummies for all four of the treatments shown in Table 3. 95% confidence intervals surround point estimates. Positive ratings from misaligned groups raise instead of lower approval.

These findings further support heuristic projection over the traditional view of how interest group cues typically affect voters' judgments. When respondents in our experiments received a

signal that meant their MC agrees (disagrees) with them on policy, they did not become more (less) supportive of their MC on average. However, when they saw a positive (negative) interest group rating of their MC, they did become more (less) supportive of them on average.

We see similar results across the spectrum of political knowledge. Although the standard errors are larger, the positive point estimates for the main effect of a supportive rating are similar for the highest knowledge respondents who answered all four political knowledge questions correctly, as are the null results for the effect of showing a rating that signals a voter–MC issue position match. This pattern holds in the original study and in the replication. Appendix Figures OA7 & OA8 present separate estimates for each SIG.

Discussion

How can citizens who know little about their representatives' actions in office hold them accountable? An influential view has long argued that many uninformed citizens are able to use ratings and endorsements from special interest groups (SIGs) to make inferences about their representatives' actions in office. Reviews of the literature often treat this traditional view as if it were a well-established fact, and indeed portray interest group cues as one of the main strategies voters use to make inferences about how well their representatives are representing them (see review in Appendix B.2). However, a surprisingly small number of studies have evaluated how citizens actually use the information in SIG cues to form judgments about their representatives (see Appendix B.1). Moreover, little literature has considered how SIGs' strategies might adapt to and exploit this possibility, and what implications this might have for how citizens use these cues as a heuristic.

We conducted a series of studies considering how citizens perceive dozens of SIGs and how their cues affect citizens' judgments. We first showed that citizens are typically unable to determine which side of an issue an interest group sits on (Studies 1 and 2). They are, consequently, unable to infer what SIG cues indicate about what their representatives have done in office on either

relevant issues or other issues (Study 3a). Citizens likewise do not adjust their evaluations of their representatives upon receiving these cues in the direction traditional theories would expect: for example, when seeing a rating that indicates their representative cast a vote they disagreed with, they do not evaluate their representatives any less positively (Study 4). Some very small proportion of citizens do appear to be able to infer the positions of interest groups with names that clearly signal their positions, but such citizens and such groups are rare. The NRA may be one exception, potentially because of media coverage and its large and active membership (Lacombe 2019). But we find that voter ignorance is the norm for the vast majority of SIGs, even the most prominent SIGs (such as the AFL-CIO and Chamber of Commerce) and those most active in political campaigns.

But our findings go beyond casting doubt on the traditional view of SIG cues as helpful heuristics. We also supported a novel argument that is even less encouraging. In particular, we find that citizens do not disregard information about SIG cues despite usually lacking the knowledge of how to interpret them. Instead, we find evidence for a novel dynamic we call *heuristic projection*: citizens on average behave as if SIGs share their views, even though many SIGs do not. We find evidence of heuristic projection in three conceptually and methodologically distinct ways: citizens on average believe SIGs share their broad left-right ideology (Study 2b); in experiments, citizens interpret positive SIG cues as indicating their MCs agree with them on issues (Study 3b); and, perhaps as a result, citizens more highly approve of MCs when they earn positive SIG ratings, regardless of whether the SIG shares their views (Study 4). We find these patterns across the spectrum of political knowledge.

In summary, special interest group cues, our findings indicate, may produce perverse incentives for politicians. Although citizens may be capable of using SIG cues as accuracy-improving heuristics in the rare instance that they are familiar with the SIG, it is even possible that citizens' behavior in the far more common instance that they are unfamiliar with the SIG may incentivize politicians to diverge from their constituents' views. In particular, by engaging in heuristic pro-

jection, voters appear to incentivize politicians to cast votes that voters themselves disagree with so that their representatives can earn positive ratings from SIGs, which voters then reward them for. Instead of helping citizens hold their representatives accountable, how voters seem to actually use interest group cues appear more likely to simply bolster the power of interest groups. Interest groups may name themselves in the vague and positive manner they do in part to achieve precisely this outcome. Our findings thus add to long-standing pessimism toward citizens' abilities to hold their representatives accountable (Gilens and Page 2014). Heuristics have long been held up as a key strategy citizens may use to produce meaningful accountability, but we find that a common form of this strategy is itself susceptible to elite manipulation.

Our findings raise a number of interesting questions for future research. Although there are clear theoretical reasons to expect SIGs to strategically contribute to heuristic projection and for citizens to be susceptible to it, future research could help understand to what extent each of these potential mechanisms contributes. Such research could also benefit from tracing the impacts of SIG cues on behavior, as one clear limitation of our research is its focus on survey-based outcomes (Bullock et al. 2015, although see Berinsky (2018)). For example, although we did show respondents actual ratings of their actual representatives, it may be that in the real world citizens also seek out information about SIG endorsements from SIGs they are familiar with, cases in which we would expect heuristic projection to be more muted.

Finally, in-depth studies of how politicians perceive interest group cues, as well as theoretical treatments of the general equilibrium implications of our findings, represent important next steps for further developing their implications for accountability.

Financial Support

None.

Competing Interests

The authors declare none.

References

- Achen, Christopher H. and Larry M. Bartels. 2016. *Democracy for realists: Why elections do not produce responsive government*. Princeton University Press.
- Arceneaux, Kevin and Robin Kolodny. 2009. “Educating the least informed: Group endorsements in a grassroots campaign.” *American Journal of Political Science* 53(4):755–770.
- Bawn, Kathleen, Martin Cohen, David Karol, Seth Masket, Hans Noel and John Zaller. 2012. “A theory of political parties: Groups, policy demands and nominations in American politics.” *Perspectives on Politics* 10(3):571–597.
- Berinsky, Adam J. 2018. “Telling the truth about believing the lies? Evidence for the limited prevalence of expressive survey responding.” *The Journal of Politics* 80(1):211–224.
- Bonica, Adam. 2014. “Mapping the ideological marketplace.” *American Journal of Political Science* 58(2):367–386.
- Bullock, John G., Alan S. Gerber, Seth J. Hill and Gregory A. Huber. 2015. “Partisan Bias in Factual Beliefs about Politics.” *Quarterly Journal of Political Science* 10:519–578.
- Coppock, Alexander and Oliver A McClellan. 2019. “Validating the demographic, political, psychological, and experimental results obtained from a new source of online survey respondents.” *Research & Politics* 6(1):2053168018822174.
- Dancey, Logan and Geoffrey Sheagley. 2013. “Heuristics behaving badly: Party cues and voter knowledge.” *American Journal of Political Science* 57(2):312–325.

- Druckman, James N., Martin J. Kifer and Michael Parkin. 2020. "Campaign Rhetoric and the Incumbency Advantage." *American Politics Research* 48(1):22–43.
- Gilens, Martin and Benjamin I. Page. 2014. "Testing theories of American politics: Elites, interest groups, and average citizens." *Perspectives on Politics* 12(3):564–581.
- Lacombe, Matthew J. 2019. "The Political Weaponization of Gun Owners: The NRA's Cultivation, Dissemination, and Use of a Group Social Identity." *Journal of Politics* .
- McDonald, Jared. 2020. "Avoiding the Hypothetical: Why "Mirror Experiments" are an Essential Part of Survey Research." *International Journal of Public Opinion Research* 32(2):266–283.
- McKelvey, Richard D. and Peter C. Ordeshook. 1985. "Sequential elections with limited information." *American Journal of Political Science* pp. 480–512.
- Olson, Mancur. 1971. *The Logic of Collective Action: Public Good and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Ross, Lee, David Greene and Pamela House. 1977. "The "false consensus effect": An egocentric bias in social perception and attribution processes." *Journal of experimental social psychology* 13(3):279–301.
- Tausanovitch, Chris and Christopher Warshaw. 2018. "Does the Ideological Proximity Between Candidates and Voters Affect Voting in US House Elections?" *Political Behavior* 40(1):223–245.
- Wood, Abby K. 2018. "Campaign finance disclosure." *Annual Review of Law and Social Science* 14(1):11–27.

A Appendix Figures and Tables

Figure OA1: Respondent Perceptions of SIGs in Study 2a & 2b by SIG CFscore

(a) All SIGs

(b) Conservative SIGs Only

(c) Liberal SIGs Only

Note: CCLife (Citizens Concerned for Life), CGS (Citizens for Global Solutions), CUPVF (Citizens United Political Victory Fund), CWF (Campaign for Working Families), CenterPAC (Center for Coastal Conservation Political Action Committee), Ferris (Friends of Ferris), Fipac (Friends of Israel Political Action Committee Fipac), FriendsEarth (Friends of the Earth), GunOwners (Gun Owners of America), HumaneUSA (Humane USA Political Action Committee), JACPA (Joint Action Committee for Political Affairs), JoePAC (Jobs, Opportunities and Education PAC (Joe PAC)), LCV (League of Conservation Voters), NAUS (National Association for Uniformed Services), NCEC (National Committee for an Effective Congress), NOW (National Organization for Women), NPLA (National Pro Life Alliance), NRA (National Rifle Association), NRL (National Right to Life), Nacpac (National Action Committee), PACE (National Association of Social Workers Incorporated Political Action for Candidate Election), PAPAC (Peace Action PAC), PAWVF (Peace Action West Voter Fund), PCCC (Progressive Change Campaign Committee), PCPAC (Progressive Choices PAC), RL (Right to Life), SBAL (Susan B Anthony List), TDC (The Desert Caucus), TFF (Texas Freedom Fund), TG (Tuesday Group), VN (Victory Now), WAND (Womens Action for New Directions Incorporated), WOF (Winning Our Future), WPAC (Washington Political Action Committee). Forward Together and Environment America Action Fund are not shown because they are extreme outliers on the left.

Figure OA2: Study 2a & 2b—Respondent Perceptions of SIG Ideology, by Respondent Own Ideology

Notes: Each point corresponds with how respondents of a given ideology rated a given interest group. Points are scaled by the number of respondents with each ideology rating each SIG. Respondents' own ideology is jittered to improve readability.

Figure OA3: Design of Survey Used for Studies 3a(i), 3b(i), and 4(i). Only Study 3a(i) and 3b(i) included the control arm.

Figure OA4: SIG ratings used in Studies 3 and 4

Figure OA5: Studies 3 and 4—Do Respondents Understand High Ratings Indicate MC Usually Votes In Ways SIG Usually Agrees With?

Notes: After showing the SIG ratings for Studies 3 and 4, we asked respondents “To make sure you understand what this rating means, do you think it means that [SIG Name] usually agrees or disagrees with how [name of respondent’s MC] has voted in Congress?” Respondents had three response options: usually agrees, neither, and usually disagrees. This Figure plots the proportion that selected the “usually agrees” and “usually disagrees” options as a function of the value of the rating they were just shown. Note that Figure OA4 shows that the vast majority of SIG ratings fall from 0 to 10 or 90 to 100.

Figure OA6: Study 3b—Number of Votes on which Respondents Perceive that Member of Congress Cast Votes That Match Their Own Pre-Treatment Issue Preference, by Study, Group Alignment, and Respondent Party

Figure OA7: Study 4(i)—Effects of SIG Rating Information on Support for Member of Congress, by SIG

(a) Effect on MC Approval Scale of Showing Positive SIG Rating (0/1)

(b) Effect on MC Approval Scale of Showing SIG Rating that Signals Voter–MC Issue Position Match (0/1)

Notes: This Figure shows the results of Model 5 in Table 4 when this regression is run with interactions between the treatment and the SIG which the respondent was shown a rating for. Note that for Figure OA7a this implicitly pools all respondents who saw a negative rating from any SIG into a comparison group for the respondents who saw positive ratings from each SIG, and likewise pools all respondents who saw any rating that signaled a position mismatch into the comparison group in Figure OA7b. This is necessary due to the lack of a pure control group in Study 4(i). The MC Approval Scale is rescaled to mean zero standard deviation one.

Figure OA8: Study 4(ii)—Effects of SIG Rating Information on Support for Member of Congress, by SIG

(a) Effect on MC Approval Scale of Showing Positive SIG Rating (0/1)

(b) Effect on MC Approval Scale of Showing SIG Rating that Signals Voter–MC Issue Position Match (0/1)

Notes: This Figure shows the results of Model 5 in Table 4 when this regression is run with interactions between the treatment and the SIG which the respondent was shown a rating for. Note that for Figure OA8a this implicitly pools all respondents who saw a negative rating from any SIG into a comparison group for the respondents who saw positive ratings from each SIG, and likewise pools all respondents who saw any rating that signaled a position mismatch into the comparison group in Figure OA8b. This is necessary due to the lack of a pure control group in Study 4(ii). The MC Approval Scale is rescaled to mean zero standard deviation one.

Table OA1: Summary of Research Questions, Studies, and Samples In This Paper

Research Question	Study	Sample	Date	<i>N</i> Respondents	<i>N</i> SIGs
Do citizens know which policies SIGs support?	1	SSI in Calif.	April 2013	1,181	6
How do citizens perceive SIG ideology?	2	Lucid	Oct. 2017	3,178	45
How do citizens interpret SIG ratings of their representatives?	3a(i), 3b(i)	Samp. Strat.	Feb. 2018	3,958	17
	3a(ii), 3b(ii)	Lucid	March 2020	3,892	17
How do SIG cues affect citizens' evaluations of their representatives?	4(i)	Samp. Strat.	Feb. 2018	3,958	17
	4(ii)	Lucid	March 2020	3,892	17

Notes: Details on sample representativeness are provided in Appendix D. Surveys samples were national except for Study 1. Abbreviations: MC stands for Member of Congress; SIG stands for Special Interest Group; SSI in Calif. was a survey by Survey Sampling International in California; Samp. Strat. is the survey vendor Sample Strategies.

Table OA2: The SIG and corresponding bill for the seventeen issues used in Studies 3-4

SIG Used		Corresponding Bill Title	Corresponding Bill Description as Shown to Respondent
National Rifle Association		Sportsmen's Heritage and Recreational Enhancement (SHARE) Act of 2015	Allows individuals to fish and hunt on federal lands without a license, unless the lands are closed for conservation, public safety, or national security.
Human Rights Campaign		Prohibits Use of Funds for Discrimination Based on Sexual Orientation or Gender Identity	Prohibits the government from doing business with companies that discriminate against individuals based on sexual orientation or gender identity.
NARAL America	Pro-Choice	No Taxpayer Funding for Abortion and Abortion Insurance Full Disclosure Act of 2017	Prohibits the use of any federal funds for health insurance that provides abortion services.
Gun Owners of America		Veterans 2nd Amendment Protection Act	Allows any veteran deemed mentally incompetent to buy and own firearms and ammunition, unless a judge deems them dangerous.
Campaign for Working Families		Working Families Flexibility Act of 2017	Allows employers to give employees who worked overtime paid time off instead of only overtime pay.
Chamber of Commerce		American Health Care Act of 2017	Repeals "Obamacare": 1) Allows states to allow insurance companies to charge individuals more for insurance if they have a pre-existing condition. 2) Removes the requirement that Americans must carry health insurance. 3) Reduces amount given to low-income Americans to help them purchase health insurance.
National Association of Police Organizations		Thin Blue Line Act	Allows the death penalty in the case of a murder or attempted murder of police officers, correctional officers, firefighters, or other first responders.
League of Conservation Voters		Reducing Regulatory Burdens Act of 2017	Allows pesticides to be sprayed near water sources without obtaining a permit.
Club for Growth		Financial CHOICE Act of 2017	Allows banks of sufficient size to take additional risk, and limits the power of the Consumer Financial Protection Bureau to investigate banks.
National Active and Retired Federal Employees Association		Department of Veterans Affairs Accountability and Whistleblower Protection Act of 2017	Authorizes the Secretary of Veterans Affairs to demote, suspend, or fire senior Veterans Affairs employees for performance or misconduct, but forbids retaliation against whistleblowers.
Federation for American Immigration Reform		Kate's Law	Increases criminal penalties for unauthorized immigrants who re-enter the United States after having been deported.
National Federation of Independent Businesses		No Sanctuary for Criminals Act	Prohibits giving federal grants to cities with "sanctuary" policies, policies cities enact to limit their cooperation with federal immigration law enforcement.
National Parks Conservation Association		Ozone Standards Implementation Act of 2017	Delays the implementation of a rule that would have reduced ozone pollution, allowing previous levels of pollution until 2026.
American Energy Alliance		Promoting Cross Border Energy Infrastructure Act	Allows oil and natural gas pipelines that cross into Canada or Mexico to be built without the President's permission.
Center for Security Policy		Countering America's Adversaries Through Sanctions Act	Places additional sanctions on Iran, Russia, and North Korea, as well as individuals who conduct business with these countries.
Freedomworks		Tax Cuts and Jobs Act	Reduces corporate taxes from 35% to 20% permanently. Temporarily reduces individual income taxes, with larger reductions for wealthier individuals. Increases the federal budget deficit by \$1 trillion.
AFL-CIO		Save Local Businesses Act	If an employee working for a company through a 'temp' agency is injured, only the temp agency is responsible and not the company directing the worker day-to-day.

B Prior Literature

B.1 Prior Research on Special Interest Group Ratings as Heuristics for Making Inferences about Politicians

Table OA3 reviews the prior empirical studies on how SIG cues affect voter perceptions of and decision-making about politicians. Despite the near-consensus in the literature that voters use SIG cues as a helpful heuristic to make more accurate inferences about politicians (see Appendix B.2), there is in fact very little empirical evidence supporting this widespread view.

However, as Table OA3 shows, there are important exceptions to this paucity of studies. As the Table shows, our work builds on this prior research in several important ways. To be clear, the differences between our work and this prior research is not a criticism of this prior research; much of this prior research was primarily interested in other hypotheses.

- Our paper measures perceptions of SIGs' positions. Only one other study measures perceptions of SIGs' positions, an unpublished working paper by Leeper (2013). Leeper (2013), in studying how SIGs affect issue attitudes on immigration, also documents (see Table 2 in Leeper (2013)) many instances of clear misperceptions of SIG ideology (e.g., the National Council of La Raza as conservative and the Minuteman Project as liberal) and, in general, relatively low levels of familiarity with interest groups even among a relatively high knowledge sample.
- Our paper measures effects of providing SIG cues on voter's perceptions of representatives' positions. Our paper is the only paper we are aware of to do this.
- Our paper experimentally estimates the effects of providing real SIG cues on voter's evaluations of their real representatives. No other research does so. There are, however, several related papers of note that do not fully meet this criteria. First, we are aware of only one

study that experimentally manipulates cues from a real SIG about a politician: McDermott (2006)’s important study of the effects of AFL-CIO endorsements on vote intentions for hypothetical politicians. We build on this work by examining effects on how citizens evaluate real as opposed to hypothetical politicians and by examining effects of cues from more than one interest group. Second, Arceneaux and Kolodny (2009) and Neddenriep and Nownes (2014) study the effects of experimental manipulations that contain other elements (e.g., a canvasser at the door, or explicit information about a candidate’s position), making the effect of the SIG cue difficult to determine.¹⁶ Finally Weber, Dunaway and Johnson (2012) do not measure baseline issue attitudes, making it difficult to test whether respondents use the NRA cue in their study “correctly” (this is not a criticism, the authors have other primary hypotheses).

- No previous studies have argued that citizens engage in heuristic projection when using SIG cues to make inferences about politicians, and testing for it persuasively is not possible in almost any studies (McDermott (2006) is an exception).

There are also other studies, such as Dancey and Sheagley (2013)’s study of party heuristics and Boudreau, Elmendorf and MacKenzie (2015)’s study of newspaper and party endorsements that we do not review here, as these are not about the use of SIG cues as heuristics; they are about the use of cues of other kinds.

Our work is also related to but distinct from research on how citizens use SIG cues as heuristics to help them form preferences about *issues*, such as in referendums (e.g., Brady and Sniderman 1985; Lupia 1994). A challenge with generalizing from this body of work to our research question

¹⁶For example, Arceneaux and Kolodny (2009) present a field experiment on a compound treatment consisting of both a SIG cue and contextual information about how to interpret the cue (that the SIG is pro-abortion). This study, although influential and important, therefore does not test our argument about how citizens react to SIG cues in the common circumstance when no such information is available (e.g., on candidate websites, in campaign ads, etc.). Other interpretations of the results are also possible; for example, other experiments on door-to-door canvassing in candidate campaigns without SIG cues have also found backfire effects, potentially because voters use other attributes of the interaction, such as the canvassers’ demographics or physical appearance, as a cue (Bailey, Hopkins and Rogers 2016).

is that there is usually not a clear benchmark for what a “more accurate” perception or decision is on issues or in referendums.¹⁷ By contrast, in our studies of candidate perception and choice, we can measure whether citizens’ perceptions of the votes their MCs actually cast are in fact more accurate.

¹⁷For example, a voter who opposes abortion may be able to infer that a candidate who is endorsed by the pro-choice SIG NARAL (the National Abortion and Reproductive Rights Action League) is likely to support policies at odds with that voter’s own policy preferences. Such a voter might therefore use NARAL’s endorsement as a negative voting cue and be less likely to vote for the politician NARAL endorsed, consistent with the notion that “signals from opposition groups can also be informative by indicating whom the voter should not support” (Arceneaux and Kolodny 2009).

Table OA3: Prior Empirical Studies on SIG Cues and Voter Decision-making About Politicians

Citation	Whether research design isolates effects of SIG cues		DVs			Factors contributing to realism					Theoretical Argument and Hypothesis Tests	
	Treatment	Treatment allows isolating effects of SIG cue?	Measures perceptions of SIGs' positions?	Measures effects of SIG cues on perceptions of representatives' positions?	Measures effects of SIG cues on evaluations of representative or vote intention?	Number of SIGs	SIGs real?	SIG cues real?	Politicians real?	Politician party provided?	Argues for heuristic projection?	Tests for heuristic projection?
This paper	SIG Cues	Yes	Yes (Studies 1 and 2)	Yes (Study 3)	Yes (Study 4)	6 (Study 1); 45 (Study 2); 17 (Studies 3 and 4)	Yes	Yes	Yes	Yes	Yes	Yes
McDermott (2006)	SIG Cue (AFL-CIO endorsement)	Yes	No	No	Yes	1	Yes	No	No	Yes	No	Yes
Arceneaux and Kolodny (2009)	Door-to-door canvass conversation containing persuasion, SIG cues, and information on SIG stance	No (treatment contains other elements, e.g., volunteer at door)	No	No	Yes (although cannot isolate effect of SIG cue)	1	Yes	Yes	Yes	Yes	No	Yes
Weber, Dunaway and Johnson (2012)	Campaign ads	Yes	No	No	Yes	2	One real group (NRA) one fake group	No	No	No	No	No
Neddenriep and Nownes (2014)	Biographical sketches of candidates	No (treatment also explicitly names candidate position)	No	No	Yes (although cannot isolate effect of SIG cue)	2	Yes	Yes	Yes	Yes	No	No
Leeper (2013)	n/a	n/a	Yes (see Table 2)	No	No	9	Yes	n/a	n/a	n/a	No	No
Lau and Redlawsk (2001; 2006)	Participants experience mock election including SIG cues and many other sources of information	No (SIG cues not randomly assigned)	No	No	No	14	Yes	No	No	Yes	No	No
Kuklinski and Quirk (2000)	This is an influential theoretical paper that points out many limitations of heuristics theories. However, it does not argue for heuristic projection.										No	No

B.2 Documenting The Literature’s Conventional Wisdom: SIG Cues Help Voters Hold Politicians Accountable

In Table OA4 we review over two dozen quotes from existing literature asserting that information about SIG cues can help citizens cast more informed votes. This table is intended to show that there is a conventional wisdom in the literature that SIG cues help citizens make accurate inferences about their representatives and use these inferences to help hold their representatives accountable. In the paper we refer to this perspective as the “traditional view” of how voters use special interest group cues about politicians as a heuristic.

Note that the literature we quote below is diverse in its primary focus. Some of it mainly focuses on advancing claims about the use of SIG cues as heuristics either theoretically or empirically (such as McKelvey and Ordeshook (1985)). However, other literature we quote below (such as Achen and Bartels (2016)) focuses on other topics but reviews the literature on SIG heuristics, therefore capturing the conventional wisdom in the field about the state of the SIG heuristics literature. There is also additional literature we quote in the main text; neither the main text nor Table OA4 is meant to be exhaustive.

Table OA4: Conventional Wisdom (Alphabetical Order by Citation)

Citation	Quote
Achen and Bartels (2016)	“In the early 1990s, a spate of books with such reassuring titles as <i>The Reasoning Voter</i> (Popkin 1991), <i>Reasoning and Choice</i> (Sniderman, Brody and Tetlock 1991), and <i>The Rational Public</i> (Page and Shapiro 1992) argued that citizens could use ‘information shortcuts’ or ‘heuristics’ to make rational electoral choices even though they lacked detailed knowledge about candidates and policies. These shortcuts could take a variety of forms, including ‘cues’ from trusted political figures or groups, inferences derived from political or social stereotypes, or generalizations from personal experience or folk wisdom.”

Continued on next page

Table OA4 – *Continued from previous page*

Citation	Quote
Arceneaux and Kolodny (2009)	“Rather than undermining their ability to make good decisions, low-information citizens need only look to someone who has an incentive to possess accurate information about the candidate (Lupia and McCubbins 1998). Issue advocacy groups are well suited to fill this role because they have a strong incentive to know how the candidate votes on the issues important to their group. In fact, the group need not even be aligned with the citizens’ interests, because signals from opposition groups can also be informative by indicating whom the voter should not support (Lupia 1994; Lupia and McCubbins 1998). Thus, by using an endorsement as a heuristic for whether the candidate would be a good representative for their interests, politically unaware citizens can make decisions as if they possessed full information about the candidates.”
Delli-Carpini and Keeter (1997)	“Though the use of ‘heuristics,’ or informational shortcuts, citizens can reach decisions about where they stand on certain issues or whom they will vote for in a given election. These shortcuts usually consist of following the lead of a group or an individual that citizens believe have their interests at heart or that have interests similar to their own” (p. 44-45)
Dalton (2013)	“Many citizens decide between competing parties based on cues that social groups provide—the endorsements of labor unions, business associations, religious groups, and the like—as well as the parties’ appeals to these groups. In most cases, this process produces reasonable voting choices, even if the voter is not fully informed on all the relevant issues.”
De Ferrari (2017)	“In judging either policies or candidates, citizens can use the statements of politicians that they trust as cues (Mondak, 1993a). Alternatively, “they can consider the positions of interest groups whose policy preferences they are generally inclined to support or oppose” (Kuklinski and Quirk, 2000, p. 155). In short, they can use endorsements to make reasoned choices without having to acquire deep knowledge of the issue at hand.”
Dowling and Wichowsky (2013)	“several studies have shown that citizens can use heuristics, such as group cues, party labels, and endorsements, to make more informed political decisions despite their lack of political sophistication”
Druckman (2005)	“citizens can compensate for a lack of political information by using shortcuts to make the same decisions they would have made if they had that information” through “elite endorsements (e.g., from interest groups)”
Druckman and Lupia (2016)	“A common theme in research on this topic is that people seek information that is easy to use, and many political scientists have examined how commonly available types of easy-to-use information such as party labels and interest group endorsements affect preferences.”
Fjałkowski et al. (2014)	“Facing uncertainty about Politicians citizens turn to Social Leaders as information short-cuts. Leaders include NGOs, the media and religious organizations.”
Garrett (2002)	“Another effective voter shortcut is provided by information that reveals which groups support a candidate and the intensity of their support. Citizens often use group affiliation as a heuristic, relying either on information about a candidate’s membership in groups or on knowledge about interest group endorsements. ... Ordinary citizens can free-ride on the information about groups, financial support, and endorsements in campaigns, using it to determine what programs candidates are likely to implement.”
Gilens (2012)	“A somewhat more complex understanding of cue taking as a basis for political preference formation allows citizens to adapt cues to their own purposes by adopting the position of like-minded cue-givers and adopting the opposite position of those espoused by the non-like-minded.”

Continued on next page

Table OA4 – *Continued from previous page*

Citation	Quote
Graber (2004)	“monitorial citizens need not stay fully informed about political developments at all times. [...] monitorial citizens should consult news stories, party and interest group pronouncements ... Reliance on information shortcuts yields acceptable results”
Grofman and Norrander (1990)	“If there are groups whose endorsements citizens can use as positive (or negative) cues, we [theoretically] demonstrate that citizens do not need to know anything directly about candidate positions to be able to identify the candidate whose issue positions and performance is likely to be closest to the voter’s own preferences”
Grossman and Helpman (1999)	“individuals may look for readily available cues to guide them in the polling booth. In this context, endorsements by group leaders may convey useful information to like-minded citizens. ... If groups of citizens use endorsements as cues—as the evidence suggests—then candidates and parties may well have incentives to compete for these endorsements.”
Kelley (2018)	“Endorsements are the focus of much attention in studies of voter information processing ”
Kinder (1998)	“Granted tha encyclopedic knowledge is out of reach—and perhaps even irrational—the public may nevertheless muddle through. How? By relying on a variety of sensible and mostly adaptive shortcuts ... The vital piece of information here was the position taken by special interest groups.”
Krishnakumar (2006)	“if there exists another, related, set of facts that leads her to make the same choice she would have made with knowledge of Candidate X’s position on 100 political issues — e.g., the related fact that Candidate X is endorsed by the NRA — then knowledge of the full set of facts is not necessary to cast a competent vote. In other words, citizens need not possess all available information about a candidate in order to vote competently; they can instead rely on “particular pieces of information, connected non-accidentally to accurate conclusions about the consequences of [their] vote[s],” and still make competent electoral decisions. Smaller, digestible, “particular pieces of information” thus serve as cues, or heuristics, that enable citizens to vote competently with limited information. As the use of the NRA in the above example suggests, an incumbent’s or challenger’s (if the challenger has held prior elective office) connection to a particular interest group can serve as one important heuristic for citizens.”
Kuklinski and Quirk (2000)	“In judging either candidates or policies, people can use statements by...interest-group leaders...as cues. ... They can consider the positions of interest groups whose policy preferences they are generally inclined to support or oppose. Such cues arguably eliminate the need for substantive information about an issue.”
Kuklinski and Quirk (2001)	“researchers have proposed a wide range of potential cues—including but not limited to...interest groups [...] The heuristics literature is characterized by a focus on clear, well-defined tasks. ... for the most part, the citizen’s task in this work is to make decisions about policies and candidates, that is, to express preferences”
Kuklinski et al. (2001)	“Some of the influence of the political-heuristics literature arises from its normatively appealing claim that citizens can perform reasonably well by taking cues from parties, politicians, and interest groups.”
Larcinese (2006)	“In the context of heuristic decision-making, parties, pressure groups, opinion leaders etc. transmit simple and effective information to citizens.”

Continued on next page

Table OA4 – *Continued from previous page*

Citation	Quote
McKelvey and Ordeshook (1985a)	“We develop models of policy formation in two candidate elections where most citizens have little or no information about the policies or platforms adopted by the candidates. ... When citizens do not possess the perfect information assumed in earlier models, and when it is costly to obtain this information relative to the presumed expected benefits, we assume that citizens take cues from other sources, endogenous in the system, that are easily observable and which they believe may convey useful information. Such sources may [include]...interest groups. ... The model developed in this paper assumes the information source for uninformed citizens is poll data and interest group endorsements.”
McKelvey and Ordeshook (1985)	“...the voter is aware of the endorsement of some specific interest group in society. Recognizing the policy preference of that group, he may use the endorsement to form a belief about the candidate most likely to yield him the greatest benefit.”
McKelvey and Ordeshook (1986)	“Citizens possess highly imperfect information about candidates and public issues, and in deciding how to vote, they rely on a variety of indirect and possibly irrelevant cues, such as...group endorsements...” “Knowledge of...which candidate is to the left, and which is to the right...can come from a variety of sources, such as the endorsements of interest groups”
Neddenriep and Nownes (2014)	“interest-group endorsements may act as cues that simplify the electoral process and help potential citizens formulate judgments about candidates, especially in low information settings ... Group endorsements...serve as ‘sign posts’ that tell potential citizens whether or not a given candidate shares their views. ... potential citizens will form a favourable opinion of candidates endorsed by groups they support and a negative opinion of candidates endorsed by groups they oppose.”
Renno (2004)	“This is why endorsements are so important in elections. The reasoning is that citizens who like specific groups or personalities will also like the candidates these groups and personalities endorse.”
Staszewski (2009)	“if citizens can accurately decide which candidates they prefer based on party labels, endorsements, or other simple cues, elected officials could be held politically accountable”
Tolbert and Hero (2001)	“Research suggests that citizens use endorsements by political candidates and interest groups as cues in deciding how to vote in issue elections (Bowler and Donovan 1998; Lupia 1994). Through endorsements of ballot initiatives, candidates for elected office link their political campaign to prominent issue elections. Political party and interest group endorsements allow citizens to make decisions in ballot measure contests consistent with their policy preferences (Bowler and Donovan 1998).”

References for Online Appendix Literature Review

Achen, Christopher H. and Larry M. Bartels. 2016. *Democracy for realists: Why elections do not produce responsive government*. Princeton University Press.

Arceneaux, Kevin and Robin Kolodny. 2009. “Educating the least informed: Group endorsements

- in a grassroots campaign.” *American Journal of Political Science* 53(4):755–770.
- Bailey, Michael A, Daniel J Hopkins and Todd Rogers. 2016. “Unresponsive and unpersuaded: The unintended consequences of a voter persuasion effort.” *Political Behavior* 38(3):713–746.
- Boudreau, Cheryl, Christopher S. Elmendorf and Scott A. MacKenzie. 2015. “Lost in space? Information shortcuts, spatial voting, and local government representation.” *Political Research Quarterly* 68(4):843–855.
- Brady, Henry E. and Paul M. Sniderman. 1985. “Attitude attribution: A group basis for political reasoning.” *American Political Science Review* 79(4):1061–1078.
- Dalton, Russell J. 2013. *Citizen politics: Public opinion and political parties in advanced industrial democracies*. CQ Press.
- Dancey, Logan and Geoffrey Sheagley. 2013. “Heuristics behaving badly: Party cues and voter knowledge.” *American Journal of Political Science* 57(2):312–325.
- De Ferrari, Ignazio. 2017. “The accountability effect of endorsements: A survey experiment.” *Electoral Studies* 45:1–13.
- Delli-Carpini, Michael X. and Scott Keeter. 1997. *What Americans Know about Politics and Why It Matters*. Yale University Press.
- Dowling, Conor M. and Amber Wichowsky. 2013. “Does it matter who’s behind the curtain? Anonymity in political advertising and the effects of campaign finance disclosure.” *American Politics Research* 41(6):965–996.
- Druckman, James N. 2005. “Does political information matter?” *Political Communication* 22(4):515–519.

- Druckman, James N. and Arthur Lupia. 2016. "Preference change in competitive political environments." *Annual Review of Political Science* 19:13–31.
- Fjałkowski, Karol et al. 2014. "Politicians and social leaders. Introducing a model of mutual relations and shaping beliefs of voters." *Ekonomia i Prawo. Economics and Law* 13(3):359–375.
- Garrett, Elizabeth. 2002. "The Future of Campaign Finance Reform Laws in the Courts and in Congress." *Oklahoma City University Law Review* 27:665–692.
- Gilens, Martin. 2012. *Affluence and Influence: Economic Inequality and Political Power in America*. Princeton University Press.
- Graber, Doris. 2004. "Mediated politics and citizenship in the twenty-first century." *Annual Review of Psychology* 55:545–571.
- Grofman, Bernard and Barbara Norrander. 1990. "Efficient use of reference group cues in a single dimension." *Public Choice* 64(3):213–227.
- Grossman, Gene M. and Elhanan Helpman. 1999. "Competing for endorsements." *American Economic Review* 89(3):501–524.
- Kelley, James B. 2018. *Reputational Effects in Legislative Elections: Measuring The Impact of Repeat Candidacy and Interest Group Endorsements* PhD thesis Temple University.
- Kinder, Donald R. 1998. "Communication and opinion." *Annual review of political science* 1(1):167–197.
- Krishnakumar, Anita S. 2006. "Towards a Madisonian, Interest-Group-Based Approach to Lobbying Regulation." *bepress Legal Series* pp. 513–573.
- Kuklinski, James H. and Paul J. Quirk. 2000. "Reconsidering the rational public: Cognition,

- heuristics, and mass opinion.” *Elements of reason: Cognition, choice, and the bounds of rationality* pp. 153–82.
- Kuklinski, James H. and Paul J. Quirk. 2001. “Conceptual foundations of citizen competence.” *Political Behavior* 23(3):285–311.
- Kuklinski, James H., Paul J. Quirk, Jennifer Jerit and Robert F. Rich. 2001. “The political environment and citizen competence.” *American Journal of Political Science* 45(2):410–424.
- Larcinese, Valentino. 2006. “Information, Elections and Public Policy in a Rational Choice Perspective.” Available at http://personal.lse.ac.uk/LARCINES/Summer_School_08/SurveyPSR.pdf.
- Lau, Richard R. and David P. Redlawsk. 2001. “Advantages and disadvantages of cognitive heuristics in political decision making.” *American Journal of Political Science* pp. 951–971.
- Lau, Richard R. and David P. Redlawsk. 2006. *How voters decide: Information processing in election campaigns*. Cambridge University Press.
- Leeper, Thomas J. 2013. “Interest Groups and Political Attitudes.” Working paper, Available at <http://dpsa.dk/papers/ImmigrationGroupsFraming2013-10-21.pdf>.
- Lupia, Arthur. 1994. “Shortcuts Versus Encyclopedias: Information and Voting Behavior in California Insurance Reform Elections.” *American Political Science Review* 88(1):63–76.
- McDermott, Monika L. 2006. “Not for members only: Group endorsements as electoral information cues.” *Political Research Quarterly* 59(2):249–257.
- McKelvey, Richard D. and Peter C. Ordeshook. 1985a. “Elections with limited information: A fulfilled expectations model using contemporaneous poll and endorsement data as information sources.” *Journal of Economic Theory* 36(1):55–85.

- McKelvey, Richard D. and Peter C. Ordeshook. 1985b. "Sequential elections with limited information." *American Journal of Political Science* pp. 480–512.
- McKelvey, Richard D. and Peter C. Ordeshook. 1986. "Information, electoral equilibria, and the democratic ideal." *The Journal of Politics* 48(4):909–937.
- Neddenriep, Gregory and Anthony J. Nownes. 2014. "An experimental investigation of the effects of interest-group endorsements on poorly aligned partisans in the 2008 presidential election." *Party Politics* 20(4):617–631.
- Renno, Lucio R. 2004. Information and Voting: Microfoundations of Accountability in Complex Electoral Environments PhD thesis University of Pittsburgh.
- Staszewski, Glen. 2009. "Reason-Giving and Accountability." *Minnesota Law Review* 93:1253–1326.
- Tolbert, Caroline J. and Rodney E. Hero. 2001. "Dealing with diversity: Racial/ethnic context and social policy change." *Political Research Quarterly* 54(3):571–604.
- Weber, Christopher, Johanna Dunaway and Tyler Johnson. 2012. "It's all in the name: Source cue ambiguity and the persuasive appeal of campaign ads." *Political Behavior* 34(3):561–584.

C Special Interest Group Prominence: Evidence from Oregon

Voter Pamphlets

Assessing the prominence of special interest groups—how often SIGs appear in communication voters receive at all, and *which* SIGs voters might hear about—is difficult. One source of data is how often candidates mention them. There is no readily available data set that codes all candidate mentions in ads, speeches, etc., but we have found one useful data set from Oregon. Oregon adopted all mail voting almost two decades ago, and, when it made that shift, began sending all registered voters a pamphlet that contains candidate profiles. We constructed a data set of Oregon state legislative candidate profiles from the general election voter guides for 2004-2020 (pamphlets are only available starting in 2004 and 2004 is partial). It contains the profiles of 1832 major-party candidate pairs in general elections. This is an advantageous data source as it contains machine-readable candidate self-descriptions in a well-defined sampling frame of candidates. Since we analyze state legislative candidates, some of the SIGs that focus on national issues, such as international relations, are understandably absent.

To assess how frequently candidates mention groups, we had a research assistant read a randomly selected 200 candidate profiles (from the 1832) and code whether the profile mentioned a SIG. The research assistant found that 50% of the profiles mentioned at least one SIG. Given that the profile allows for an average of only 260 words, candidates are devoting scarce space to these endorsements.

We also had a research assistant enter the names of interest groups from these profiles so that we could count their frequency. The 1832 candidates mention SIGs 4361 times by our coding (which is undoubtedly an undercount, since we are likely missing some less frequently occurring SIGs). Table OA5 shows the frequency of groups we coded, excluding SIGs with fewer than 10 mentions. The League of Conservation Voters tops the list with 343 mentions. Some of the other

Table OA5: Special Interest Group Mentions in State Legislative Candidate Profiles in the Oregon Voter Pamphlets 2004-2020

Special Interest Group	Frequency in Candidate Profiles
League of Conservation Voters/LCV/OLCV	343
Nurses Association	297
Oregon Education Association	281
Chamber of Commerce	237
National Federation of Independent Business/NFIB	205
SEIU	201
American Federation of Labor/AFL/AFL-CIO	187
Planned Parenthood	178
AFSCME	168
Fire Fighters Council	166
Basic Rights Oregon	158
American Federation of Teachers/AFT	154
NARAL	138
Pro-Choice Oregon	128
Oregon Business Association	121
School Employees Association	100
Farm Bureau Federation	97
Ag-PAC	95
Right to Life	81
Oregon Chiefs of Police	71
Sierra Club	68
United Food and Commercial Workers/UFCW	65
The Mother PAC	59
Building Trades Council	58
Oregon Nurseries	58
Anti-Crime Alliance	56
Council for Retired Citizens	48
Oregon Small Business Association	48
Oregonians for Food and Shelter	48
National Rifle Association/NRA	42
Stand for Children Oregon	42
Taxpayers Association	41
Portland Association of Teachers	31
OPEU	30
Coalition of Police and Sheriffs/ORCOPS	28
Firearms Federation	18
Trooper PAC	17
International Association of Fire Fighters/IAFF	17
International Brotherhood of Electrical Workers/IBEW	15
National Association of Social Workers/NASW	15
Dairy Farmers Association	15
United Transportation Union	15
Working Families Party	11
Humane Voters	10
Federation for American Immigration Reform/Oregonians for Immigration Reform	10
Oregonians for Immigration Reform	10
Salvation Army	10

Note: The frequency counts are for general election candidate profiles in races with major party candidates and shows groups with 10 mentions or more.

groups we analyze in this paper that also top this list are the Chamber of Commerce, AFL-CIO, Planned Parenthood, NARAL, Right to Life, and the Sierra Club.

Another source of data on interest group activity is interest group spending. [OpenSecrets.org](https://www.opensecrets.org)

collects data on these groups. This data reveals that some of the groups we analyze top the lists on spending in their respective areas. For example, the League of Conservation Voters is the number one spending environmental group.¹⁸

¹⁸<https://www.opensecrets.org/industries/indus.php?ind=Q11cycle=All>, 2020-21 cycle, retrived 1/13/2022

D Representativeness

Table OA6 provides demographic statistics for the four samples we use in this paper in the middle four columns. The last column displays the same statistics in the 2017 American Community Survey (ACS) from the US Census Bureau, a benchmark. Unsurprisingly the MTurk sample from Study 1 is fairly unrepresentative on gender, income, and education. However, our remaining samples are broadly representative, with the main differences with the ACS being that some of our samples are slightly whiter, underrepresent individuals without high school degrees, and underrepresent individuals with incomes over \$80,000 per year. Note that the ‘SSI in CA’ sample would not be expected to match the 2017 ACS exactly, as the SSI in CA sample was conducted only in California whereas the 2017 ACS is nationwide.

Table OA6: Representativeness of Four Samples Used in Paper

	Studies 3a(i), 3b(i), 4(i)	Study 1	Study 2	Studies 3a(ii), 3b(ii), 4(ii)	Benchmark: 2017 ACS
Sample					
Provider	Sample Strategies	SSI in CA	Lucid	Lucid	US Census
Year	2018	2013	2017	2020	2017
N	3,958	4,298	3,178	3,891	-
Gender					
Female	55	57	59	51	51
Age					
18-24	3	15	14	12	13
25-34	11	17	24	20	18
35-49	22	20	27	25	25
50-64	31	30	23	26	25
65+	32	18	12	17	19
Race					
Non-Hispanic White	83	59	74	69	61
Black	6	7	10	11	13
Asian + Other	9	17	6	10	7
Hispanic	3	15	9	11	18
Education					
No HS Degree	1	2	6	4	11
HS Degree	19	13	25	23	29
Some College / Associate Degree / 2 year degree	36	37	39	35	28
College Degree	29	30	21	24	21
Graduate Degree	15	17	9	14	12
Income					
<\$19k	11	17	50	22	16
\$20-39k	22	20	19	23	19
\$40-59k	21	16	11	18	16
\$60-79k	17	9	7	11	12
\$80k+	28	24	11	20	36
Unknown	0	13	3	5	0

Notes: All cell entries provide the percentage of each sample present in each demographic category. In rare cases age and income categories were inconsistent across surveys and were either combined or averaged across other categories.

E Question Wording for Study 1

Question wording:

- Did NARAL Pro-Choice America support banning federal funding for elective abortions?
- Did the League of Conservation Voters (LCV) support preventing the Environmental Protection Agency from regulating greenhouse gases?
- Did the National Rifle Association (NRA) support allowing individuals to carry concealed firearms in all states if they have a license in one state?
- Did the Club for Growth support a tax increase on individuals with \$400,000 or more in income to avert the fiscal cliff?
- Did the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) support a free trade agreement with South Korea?
- Did the League of Conservation Voters (LCV) support building the Keystone XL oil pipeline?
- Did the Chamber of Commerce support universal healthcare?

Response options: Yes, No, Did not take a position, Don't know

F Appendix for Studies 2a and 2b

Coding Rule

When we trichotomize the groups into conservative, moderate, and liberal, we code the middle 1 unit of the range of CFscores as moderate; i.e., the range from -0.5 to 0.5. This codes six PACs as moderate: the Blue Dog Democrats (a PAC supporting moderate Democrats), the Tuesday Group (a PAC supporting moderate Republicans), and several explicitly bipartisan Israeli PACs. Investigating the particular groups we code as liberal and conservative reliably shows that they are clearly affiliated with one side. The most moderate SIG we code as conservative is the Texas Freedom Fund, which describes itself as “acting in defense of private property, privacy, and the 2nd amendment.” The most moderate SIG we code as liberal is JoePAC, the leadership PAC of former Democratic Member of Congress Joe Crowley.

Respondents Perform Worse than Chance

To address concerns about respondents using ideological scales idiosyncratically, we conduct an analysis within respondent, exploiting the fact that we had each respondent rate two groups. We check whether respondents placed the more liberal group to the left of the more conservative group. If respondents know something about the ideology of these groups, they should do so more often than chance. Given the seven-point scale, we calculate chance here as $(21/(7 * 7) =) 43\%$ —the odds of placing the liberal group anywhere to the left of where they placed the more conservative group excluding those who skip. Using CFscores as the benchmark, we find that respondents do *worse* than chance with only 36% answering correctly. If we limit the analysis to those asked about groups on opposite sides of the spectrum (either side of zero on CFscores), this rises to only 39%. If we include respondents who skipped either group, this falls to 17%, whereas chance would be $(21/(8 * 8) =) 33\%$.

Correlates of Knowledge

Here we examine the correlates of knowledge about SIGs in Studies 2a and 2b. Since it has a very large sample, we used the survey from Studies 2a and 2b, which asked respondents to place SIGs on a seven-point ideology scale.

We coded respondents as having placement accuracy if they placed the interest groups correctly using the three-point classification of CF scores we use in the paper as the benchmark, i.e., liberal, moderate, or conservative. As we discussed, most groups we analyzed are either liberal or conservative and most are relatively extreme. Although no measure of respondent accuracy will be perfect, we think this one is relatively straightforward.

Overall, we find some relationship between general political knowledge and accuracy. As respondents general political knowledge rises from the bottom to the top quintile, we find that accuracy rises from 20% to 34% ($n = 6,356$).

However, if we look only among respondents who attempted to place interest groups (exclude those who skip the question), accuracy increases from 35% to 62% ($n = 3,541$).

The groups the top quintile knew best (when they placed groups) were the National Organization for Women (100% correct), Gun Owners of America (95%), NRA (95%), National Pro-Life Alliance (86%), Right to Life (75%). The groups they knew least were the League of Conservation Voters (43% correct), Susan B Anthony List (36%), Prosperity PAC (56%), Campaign for Working Families (44%), and Blue Dog (0%).

We see no sign that general political knowledge lowers rates of skipping the question, which is unusual. If anything, high general political knowledge individuals were slightly more likely to refuse to answer the question.

Examining demographic correlates, we find that accuracy increases with education (and variables associated with education). We also see signs of learning with age, with accuracy peaking around 65 years.

G Study 3c: Additional Study on Whether Citizens Can Infer MC Policy Positions from SIG Ratings

In this section we also report an additional study we conducted that investigates the question of whether citizens know which policies SIGs support and provides similar results as Study 3a. We do not include this study in the paper for length but discuss the results here for completeness and transparency.

We replicated the accuracy findings in a study where we recruited 1,372 respondents through Amazon.com’s Mechanical Turk in March and April 2013. To implement this experiment, we asked respondents for their nine-digit zip code to determine their actual representative in the US House. The experiment involved three treatment conditions and a control condition. In the control condition, we asked respondents to provide their best guess about their representative’s vote on one of seven issues, detailed in Table 1a, with the following prompt: “Please give your best guess for the question below: Did [respondent’s representative in the US House] vote for [policy text]?” Respondents could answer “yes,” “no,” or “abstained.” The first treatment condition exposed respondents to interest group ratings (see Table 1a) from an interest group related to that issue. The cues varied by interest group, but generally took the form of “Before you answer this question, here’s some information you might find relevant: Representative [Rep.] received a score of [x]% from the [Interest Group],” and presented all available ratings from the previous four years. Since voters know their MC’s party when voting in real world elections—it is on the ballot—the second treatment condition exposed respondents to their representative’s party: “Your representative is a member of the [respondent’s representative’s party] Party.” The third treatment condition presented respondents with both interest group ratings and their representative’s party.

The policy summaries we provided to respondents are in the fourth column of Table OA7. We determined each voter’s actual MC, and that MC’s votes, using data from Project Vote Smart (PVS). We selected interest group endorsements from several prominent SIGs. We matched 741

respondents to 278 MCs with SIG ratings and roll call votes.¹⁹

Table OA7: The issue area, interest group, House of Representatives bill identifier, survey prompt, and vote breakdowns for the six issues.

Issue	Interest Group	Vote	As shown to respondent: Did your representative support...?	Dems in favor	Reps in favor
Abortion	NARAL Pro-Choice America	HV 292 2011	banning federal funding for elective abortions	8.3%	97.5%
Energy	Chamber of Commerce, League of Conservation Voters	HV 650 2011	building the new Keystone XL oil pipeline	24.4%	96.7%
Trade	AFL-CIO	HV 283 2011	the free trade agreement with Korea	30.7%	90.5%
Environment	League of Conservation Voters	HV 249 2011	preventing the Environmental Protection Agency from regulating greenhouse gases	9.9%	97.9%
Guns	NRA	HV 842 2011	allowing individuals to carry concealed firearms in all states if they have a licence in one state	21.9%	94.6%
Healthcare	Chamber of Commerce	HV 14 2011	universal healthcare	1.6%	100%

If these interest group ratings helped voters form more accurate impressions of how their MCs voted, then the treatment group that received SIG rating statements should be more accurate than the control group, and the joint cue condition should be more accurate than those receiving only their MC's party affiliation.²⁰ However, this is not what we find. On average, respondents in the control condition accurately reported their MCs' votes 60% of the time. Figure OA9a shows the estimated effect on the proportion correct by condition, using a least squares regression and coding accuracy to 0/1. Being told MCs' party affiliation improves accuracy by 0.10 (or 10 percentage points) over the control group ($p = 0.038$), but providing respondents with a SIG rating does not increase accuracy—if anything, it slightly decreases it relative to the control. The estimates are somewhat imprecise but when we estimate main effects for the SIG and the party conditions, with no interaction to increase precision, the point estimate for the interest group cue effect is close to zero, -0.0017, and the top of the 95% confidence interval is 0.066, implying that we can be reasonably sure the effect is smaller than a 6.6 percentage point increase.

¹⁹From the original 1,372 respondents, we lost 162 because they did not enter their nine-digit zip codes, 420 because we lacked SIG ratings for their MCs, and 49 because their MC was not in office during the votes. We assessed these prior to random assignment, except for the 49 with an MC not in office.

With half the sample, we randomly assigned which vote in the third column of Table OA7 we asked about. For the other half of the sample, we assigned a vote based on respondents' answers to a question of what "political issues would you say is most important to you personally?" This manipulation had no effect on accuracy. To simplify the presentation, we pool the results for these conditions and discuss the details after presenting the main results.

²⁰SIG ratings are in fact highly predictive of MC's votes on these issues; on average a regression can predict votes on these issues correctly approximately 95% of the time.

Figure OA9: Can respondents infer how their representatives vote using heuristics?

(a) Estimated Effects on Accuracy, Pooled Across SIGs

(b) Estimated Effects on Accuracy, by SIG/Issue

Notes: $N = 741$. The top panel shows that providing respondents with special interest group ratings for their MC fails to improve respondents' accuracy at identifying how their representative voted on key legislation (coded to 0/1). In contrast, providing them with their Member's party affiliation does improve accuracy by about 0.10 (10 percentage points). Across the four conditions, the N s are 191, 214, 154, and 182, respectively. The bottom panels show that this pattern varies somewhat across groups, with NRA and NARAL ratings increasing accuracy but League of Conservation Voters (LCV), AFL-CIO, and Chamber of Commerce (CoC) reducing accuracy relative to the control group. Estimates are from least squares regression models with indicator variables for condition. 95% confidence intervals.

An important corollary of these findings is that there does not appear to be an interaction between providing a partisan cue and a SIG cue (see Figure OA9a).

A wrinkle in these finding is that there is some heterogeneity among interest groups. Figure OA9b shows change in respondents' accuracy by treatment condition and interest group. Although the pattern of effects reveals intriguing patterns, such as the NRA improving accuracy, we believe these mostly reflect noise, as we don't consistently find the NRA improving accuracy in the larger studies we conducted and presented in the main text. This MTurk sample is also less representative than the studies we present in the main text.

We emphasize that, for most respondents, the SIG ratings sent a clear signal about how MCs voted, predicting votes with 95% accuracy. Nevertheless, a small number of respondents did not receive a clear or accurate signal in three ways: (1) just over a dozen MCs had middling ratings (between 40 and 60); (2) since we showed SIG ratings from the previous four years, noticeable changes in ratings occurred, with 24 MCs experiencing ratings changes from under 50 to over 50; and (3) 31 MCs voted inconsistently with the ratings shown. To ensure that these mixed signals do not drive the findings, we discarded MCs whose average ratings were between 40 and 60, 30 and 70, 20 and 80, 10 and 90, whose ratings changed from below 50 to above 50, and who voted out of line with their ratings, reestimating after each discard. These robustness checks left the findings unchanged—the SIG-cue effect estimates remain stubbornly near zero and often negative.

Would respondents find the SIG ratings more helpful if they cared about the issue, perhaps because they are more familiar with the relevant SIGs? To explore this possibility, we asked before the experiment, “Which of the following issues would you say is most important to you personally?” Respondents could choose from a list of policies that matched the roll call votes we later asked them about, e.g., abortion, environment, guns and gun control, etc. Half of respondents were then asked about their MC’s roll call vote that corresponded to the policy they chose (for the other half, the issue was randomly assigned). Respondents shown a SIG rating were then, as before, shown a rating from a SIG relevant to that issue. If respondents can better use SIG ratings as heuristics on issues they care about, we should see the effect of providing a SIG rating on their accuracy increase. We do not find, however, any such effect. Even when respondents are assigned to the policy they say is most important to them, we find that the SIG ratings continue to slightly decrease accuracy relative to the control condition. There we also show that the results are unchanged for individuals high in political knowledge. Finally, we explored whether we could improve precision with random or fixed effects for Member and policy area or with probit or logit regressions, but the results remained unchanged.

H Pre-Analysis Plans for Studies 3a, 3b, and 4

Our first PAP was for studies 3a(i) and 4(i) and is available at https://osf.io/3a9zf/?view_only=ef27a2012c1041d8b2a96988662d57db. We discovered the pattern documented in 3b(i) and the effect of positive ratings on approval shown in Study 4(i) after collecting sample (i). Since we did not preregister the findings, we preregistered code for a replication study at https://osf.io/qf3dc/?view_only=82ebf3947b994cbcb153b0de803a7dca and collected the data described as sample (ii) in the paper, the replication studies reported in studies 3a(ii), 3b(ii), and 4(ii).

We made the following deviations from the pre-analysis plans:

- In Studies 3a(i) and 3b(i), we originally pre-specified that we would control for possible treatments using a linear term. We now use fixed effects for every level, as this will be less sensitive to functional form. The results are nevertheless essentially identical when using a linear term. In study 4(i), we use fixed effects for each set of the four treatment probabilities. Our replication study preregistered these approaches.
- As also noted, before conducting studies 3a(i) and 4(i) we did not originally anticipate that respondents would naively react to whether the rating was positive or negative regardless of the SIG issuing the rating. However, the p -value on this comparison is 0.005, it would only be rendered insignificant under a Bonferroni correction if this were at least the tenth non-preregistered comparison we ran. More importantly, our preregistered replications in studies 3a(ii), 3b(ii), and 4(ii) did preregister these hypotheses and confirm these findings.
- In Study 3b(ii), our preregistered code accidentally included pure independents in Model 2 of Table 2b, which the table now excludes. Including them increases the treatment effect estimate.
- Figures OA7 and OA8 estimate the effects of SIG ratings on MC approval by SIG. For

Study 4(ii), we had pre-registered that we would run separate regressions by SIG to construct this Figure. When we ran these models, the standard errors were so large as to render the coefficients completely uninformative (e.g., the standard errors twice as large as the standard deviation of the outcome). We changed the estimation strategy to an approach that yields smaller standard errors, and is described in the notes under Figures OA7 and OA8.