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Abstract Political parties play a vital role in democracies by linking citizens to their representatives. Nonetheless, a longstanding concern is that partisan identification slants decision-making. Citizens may support (oppose) policies that they would otherwise oppose (support) in the absence of an endorsement from a political party—this is due in large part to what is called partisan motivated reasoning where individuals interpret information through the lens of their party commitment. We explore partisan motivated reasoning in a survey experiment focusing on support for an energy law. We identify two politically relevant factors that condition partisan motivated reasoning: (1) an explicit inducement to form an “accurate” opinion, and (2) cross-partisan, but not consensus, bipartisan support for the law. We further provide evidence of how partisan motivated reasoning works psychologically and affects opinion strength. We conclude by discussing the implications of our results for understanding opinion formation and the overall quality of citizens’ opinions.

Keywords Motivated reasoning · Parties · Partisan trust · Experiment

Party identification is often seen as playing an important, if not paramount, role when it comes to influencing political attitudes and behaviors. Indeed, few concepts have received more attention among political scientists. Nonetheless, the discipline

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surprisingly continues to lack consensus on *when* partisan identification colors one's interpretation of political information due to a dearth of solid evidence (Bullock et al. 2013; Druckman et al. 2013; Nicholson 2012; Petersen et al. n.d.; Slothuus and de Vreese 2010; Taber and Lodge 2006). In this paper, we explore two fundamental questions. First, when does one's partisan identification slant the evaluation of political information? Our focus here is distinct from prior work, as we focus on an individual's *motivation* at the time of opinion formation (e.g., as opposed to individual sophistication or opinion strength). A second novelty we explore is how the type of partisan endorsement (e.g., same party, different party, bipartisan, what type of bipartisan, etc.) conditions the tendency of individuals to evaluate information through a partisan lens. In addition to exploring these conditions, we also present evidence of how individuals' psychologically process partisan information and thus get at the underlying psychology of partisan motivated reasoning—in some sense this gets at an ongoing debate about how partisan endorsements work in terms of providing a cue to reduce cognitive effort as opposed to coloring how information is interpreted and consciously evaluated (Petersen et al. n.d.). In sum, our focus *differs* from prior work in that we look at whether motivation and partisan sources that almost always connect with policy endorsements condition partisan motivated reasoning.

In the end, our work, when combined with other recent work on the *conditions* under which partisan motivated reasoning occurs, sets the stage for the next generation of research which demands a more full-fledged theory that moves beyond psychological processes and integrates/connects political contexts that drive partisan motivated reasoning. This also would lay the foundation for more serious normative discussions regarding the status of this type of decision-making, as we will discuss in the conclusion.¹

Partisan Motivated Reasoning

Motivated reasoning refers to an individual's goal in the context of forming an attitude. We follow Taber and Lodge (2006) and focus on two primary motivations in the opinion formation process: *directional* and *accuracy* goals. We begin by discussing the former goal and then turn to the latter. A *directional goal* refers to when a "person is motivated to arrive at a particular conclusion" (Kunda 1999, p. 236), e.g., one that is consistent with a person's party identification (Taber and Lodge 2006; thus we focus here strictly on partisan directional goals). Individuals weigh information consistent with their existing beliefs or social identities more heavily than contradictory information when motivated by a directional goal in

¹ Our work also adds to studies of how party endorsements in general affect public opinion (e.g., Arceneaux 2008; Bullock 2011; Nicholson 2012). Consider, for instance, Bullock's (2011) recent paper, which tests the effects of a partisan endorsement on support for a policy by varying the availability of a source endorsement. He concludes (2011, p. 512), "party cues are influential, but partisans... are generally affected at least as much—and sometimes much more—by exposure to substantial amounts of policy information." What Bullock does not probe deeply, however, is the conditions under which partisan endorsements are likely to slant evaluations.

forming an evaluation (Kunda 1990). Motivated directional reasoning causes people to seek out information that confirms their existing beliefs (i.e., an attitude confirmation bias), counter-argue and dismiss information inconsistent with their existing beliefs regardless of the belief's objective accuracy (i.e., a disconfirmation bias), and view evidence consistent with their prior opinions as stronger, (i.e., a prior attitude effect) (e.g., see Druckman et al. 2013; Kunda 1990, 1999; Lodge and Taber 2000; Slothuus and de Vreese 2010; Taber and Lodge 2006).²

Partisan motivated reasoning (i.e., directional goals aimed at protecting one's partisan identification) is likely to occur when one is primed to pay particular attention to being consistent with his/her partisan identity. Partisan identity certainly plays a critical role in public opinion formation and directional reasoning is likely often driven by an individual's desire to be loyal to and consistent with one's own party and maximize differences with the out-party (Lavine et al. 2012; Smith et al. 2005; also see Dancey and Goren 2010, p. 686; Druckman et al. 2013; Green et al. 2002; Iyengar et al. 2012; Nicholson 2012, p. 52). Thus, a Democrat might view a policy sponsored by Democrats as effective and support it, whereas he/she would see the same policy as less effective and oppose it if sponsored by Republicans (and vice versa for Republicans). Druckman et al. (2013) find that party endorsements have a powerful impact on support for off-shore oil drilling in the U.S. and immigration reform in competitive information contexts, and that elite polarization on these issues stimulates partisan motivated reasoning. When individuals engage in motivated reasoning they may miss out on relevant information that might otherwise be helpful (Druckman and Bolsen 2011; Fazio and Olson 2003, p. 149; Jerit 2009; Lavine et al. 2012). This literature leads us to offer the following prediction.

Hypothesis 1 *Individuals will be more likely to engage in partisan motivated reasoning in evaluating a policy when provided with an in-party or out-party endorsement. (This is particularly likely to occur when a directional motivation is at work; without an induced motivation, the hypothesis is less clear.)*

Prior work has identified some factors that moderate the likelihood of partisan motivated reasoning including political sophistication, opinion strength, message repetition, information search, and the level of elite polarization in a given context (e.g., see Taber and Lodge 2006³; Bullock 2011; Druckman et al. 2012, 2013). However, one factor that has not been examined by political scientists is an individual's goal in evaluating information in the context of opinion formation (there is sometimes the assumption that directional motivations dominate; see note 4).

² Note that motivated reasoning encompasses a range of distinct goals, including defending prior opinions, impression motivation, and behavioral motivation (see Kunda 1999), but here we follow political science work to date focusing on directional and accuracy goals.

³ These various moderators somewhat contradict Taber and Lodge's (2006, p. 767) conclusion that: "despite our best efforts to promote the even-handed treatment of policy arguments in our studies, we find consistent evidence of directional partisan bias...Our participants may have tried to be evenhanded, but they found it impossible to be fair-minded." Of course even Taber and Lodge themselves find moderating effects of opinion strength and sophistication (also see Druckman 2012).

As intimated, individuals may pursue distinct goals when forming a political opinion. An accuracy goal refers to when individuals are motivated to evaluate information in a manner that will lead to an “accurate” belief or opinion. The goal of forming a *correct* (or “accurate”) belief means that an individual will evaluate political arguments with the hope of reaching an outcome that is the “correct or otherwise best conclusion” (Taber and Lodge 2006, p. 756). What the “best outcome” entails is, of course, not always clear. One criterion might be that individuals consider the available information and not ignore potentially relevant arguments in order to form an evaluation consistent with one’s partisan identity. This is our focus and it is consistent with the partisan motivated reasoning literature (e.g., Lavine et al. 2012); yet we will discuss how more work is needed on what goals and motivations imply.

As explained, individuals pursue distinct goals in the process of opinion formation. Individuals invest greater cognitive effort in forming an opinion and rely on more complex decision rules when pursuing an accuracy goal (Kunda 1990, p. 485). Measuring someone’s commitment to accuracy in the opinion formation process can be difficult given that it is not easy to observe. It is for this reason that psychologists often experimentally induce an accuracy goal (again, something political scientists have not done). For instance, participants in experimental settings pursue an accuracy goal when forming an opinion when they are instructed to consider alternative perspectives and keep in mind that they will have to explain the reasons for their opinions to others (Kunda 1999; Tetlock 1986).⁴ In other words, an encouragement to assess how compelling a message is combined with the *anticipation* of having to explain one’s opinion generates a motivation to form an accurate opinion (i.e., it vitiates a directional goal). This leads us to offer the following prediction.

⁴ This can be accomplished in a variety of other ways, with the underlying rationale being to increase, “the stakes involved in making a wrong judgment or in drawing the wrong conclusion, without increasing the attractiveness of any particular opinion” (Kunda 1990, p. 481). One approach is to inform respondents that their decision is important, will be judged by peers, *will have to be justified*, will be made public, or will affect someone else (also see, e.g., Tetlock 1983; Tetlock et al. 1989; Lerner and Tetlock 1999; Tetlock 1986, all of whom do not explicitly look at social expectations but use it as a clear implicit component of their treatments).

As will become clear, we follow this approach (i.e., inducing participants to believe they will have to justify their responses). This approach differs from the one taken by Taber and Lodge (2006, p. 759), who ask respondents to, “view information in an evenhanded way so [as to] explain the issue to other students.” The potential problem with not asking explicitly for general justification is highlighted by Lord et al. (1984) who find that inducing people to form accurate preferences requires not only encouraging them to be unbiased, *but also inducing them to justify their opinion*. Taber and Lodge’s manipulation asks respondents to put their prior opinions aside and requires them to “explain the issue” to others. However, individuals may have understood this to mean that they need to present some facts to others; they may not have been induced to consider alternative viewpoints or justify their opinions. This is why we follow this other experimental work by asking respondents to justify their specific opinions (e.g., Redlawsk 2002; Tetlock 1983). Indeed, Houston and Fazio (1989, p. 65) explain that removing attitudinal slant requires “directing people to focus on the nature of the judgmental process” (also see Creyer et al. 1990; Lerner and Tetlock 1999).

Hypothesis 2 *Individuals will be less likely to engage in partisan motivated reasoning when pursuing an accuracy goal in the opinion formation process, regardless of any partisan endorsement.*

As will become clear when we describe the experiment we conducted, we compare an accuracy motivation inducement to no motivation inducement, as well as to a directional motivation inducement in order to offer two points of comparison. Our rationale for doing so will be discussed in the design section.

Another individual level variable known to moderate partisan motivated reasoning is the strength of one's partisanship. Indeed, this is a theme of Lavine et al.'s (2012) book that offers compelling evidence that those more ambivalent about their partisan identity, all else constant, engage in less partisan motivated reasoning. We explore another, albeit possibly related, moderator to Lavine et al. (2012) by measuring trust in one's party (rather than ambivalence). We report these results in Appendix 2.

Cross-Partisan Versus Consensus Bipartisan Sponsorship

As discussed, scholars have only recently begun to explore moderators of partisan motivated reasoning. Surprisingly, only a few studies have explored how the nature of the elite partisan environment affects opinion formation and this focus has been only on polarized environments (e.g., Druckman et al. 2013). Yet, the reality is that there is a fair deal of policy passed that is enacted with bipartisan support (see, e.g., Harbridge 2013).

There are at least two alternative ways parties can play a role in endorsing policies, aside from strictly along partisan lines. First, there is what some Congressional scholars refer to as a *cross-partisan* environment—that is, an environment where a policy is supported by a mix of members from different parties (Cooper and Young 1997). In other words, segments of each party—but not everyone in both parties—vote together. Such cases signal *intra*-party disagreement, which may vitiate partisan motivated reasoning by alerting citizens to conflict within one's own party on an issue. Such conflict has been shown to generate deeper thought regarding the applicability of various pieces of political information (e.g., Chong and Druckman 2007).

Clearly, this differs from a polarized context where nearly all members of each party vote together, and, more importantly, it differs from what we refer to as *consensus* bipartisan sponsorship where nearly all members of both parties support a policy. In other words, there is an important distinction between these contexts—strictly partisan (see Hypothesis 1), *cross-partisan* and *consensus* bipartisan support since the former introduces conflict into what is often deemed a unified group (i.e., a political party), and the latter will likely lead individuals to simply see their party as supportive (along with the other party). This leads us to make the following prediction.

Hypothesis 3 *Individuals will be less likely to engage in partisan motivated reasoning when they are provided with a cross-partisan endorsement in which some, but not all, members of a partisan's party are described as supporting a*

policy, even when provided with a directional inducement (since the conflict may generate elaboration).⁵

As stated, we expect Hypothesis 3 to hold regardless of whether there is a directional processing inducement present in any given context (see Hypothesis 1). Again, the logic is that the intra-party conflict vitiates one's partisan identity and undermines partisan motivated reasoning. As mentioned, this is quite distinct from a consensus bipartisan situation where nearly all members of both parties support a policy (see Slothuus and de Vreese 2010). As stated, individuals may focus on the fact that their party supports the policy, thereby increasing the likelihood of partisan motivated reasoning.⁶

Hypothesis 4 *Individuals will be more likely to engage in partisan motivated reasoning when they are provided with a consensus bipartisan endorsement.*

Note that we expect Hypothesis 4 will *not* hold when individuals pursue an accuracy goal in the process of forming an opinion. Our expectations accentuate the conditional nature of partisan motivated reasoning. Rather than being an inevitable political decision-making outcome, its occurrence depends both on one's motivation in forming an opinion and the nature of partisan support.

Processing Party Endorsements

Thus far we have focused on the conditions under which partisan endorsements will (or will not) slant the evaluation of political information. As explained, we have built explicitly on a theory of partisan motivated reasoning, putting aside another debate: *how do partisan endorsements affect individuals' opinions?* For some, partisan effects operate as a perceptual screen (Campbell et al. 1960). However, for others partisan endorsements are akin to a heuristic where an individual may simply follow the endorsement and ignore the content of a policy or political argument (Downs 1957). This debate has become coined a “motivated reasoning” versus “cue theory” debate—and although the language may be a bit distinct from the intellectual origins (given cues or heuristics have their origins in psychology as a type of bias and not simply skipping over content *per se*, see Druckman et al. 2009b), the more important point for us is whether people are in fact using party endorsements as a way to expend less cognitive effort when asked to evaluate political information, or whether they see the endorsement and use that to process information more thoroughly a la partisan motivated reasoning.

This distinction in process is best captured by Petersen et al. (n.d., p. 3):

Research on the psychology of opinion formation suggests that two different psychological processes may explain citizens' reliance on a source cue such as

⁵ We are careful here because such an endorsement could work to generate something akin to an accuracy goal given that conflict can generate elaboration (e.g., Chong and Druckman 2007) which is what we posit; however, it also is possible that the endorsement just leads to a moderation of opinions. We thank an anonymous reviewer for this point.

⁶ We thank Laurel Harbridge for pointing out the important distinction between unanimity and cross-partisan situations.

a party's position on a policy. The first process, heuristic processing, minimizes the processing costs involved in opinion formation while the second process, motivated directional reasoning (or for short, motivated reasoning), involves investing cognitive effort to defend valued pre-commitments such as one's party identification (e.g., by spending effort to produce convincing arguments for giving into the motivational pull of one's identification)... While a few studies have suggested that motivated reasoning drives the processing of party cues... Bullock (2011, p. 497) sums up the current state of the literature by arguing that party cues are widely thought to be processed heuristically. Yet, until now, studies on party cues in political science have not focused directly on the psychological processing of party cues and, hence, have failed to discern between the different possibilities. This is unfortunate because the two processes are grounded in different types of motivations and paint very different pictures of citizens' basic relation to politics... If party sponsor effects originate in heuristic processing, citizens are basically motivated to hold accurate opinions... and partisan bias in opinion formation is just an unfortunate by-product of citizens' lack of political interest... In contrast, if party sponsor effects originate in motivated reasoning, citizens are seen as motivated to be biased....

Thus, on one hand, a party endorsement may lead individuals to ignore information at stake in a policy debate as a way to expend less cognitive effort. On the other hand, it may motivate effortful processing of relevant information as a way to protect one's partisan identity. Petersen et al. (n.d.) report evidence that adding party endorsements to policy arguments lengthens individuals' processing time, concluding that motivated reasoning drives the process—that is, people do not skip over the information but rather use the endorsement as a perceptual screen leading them to think in even more elaborate ways. In short, the idea is that partisan motivated reasoning causes people to take longer to form an opinion because people think through the substance of the argument and its source rather than merely skipping the substance and following the source endorsement.

We follow the lead of these authors and explore *how partisan endorsements shape opinions* by comparing response latency times in the presence and absence of a partisan endorsement. We expand upon the method introduced by Petersen et al. (n.d.) by exploring response latency to see if party endorsements lengthen the time participants spent forming an opinion, as they expect and find. This feeds into an ongoing debate, reviewed in detail by Petersen et al. (n.d.) about whether party endorsements are followed blindly as simple cues or actually enhance effortful opinion formation processes but in a potentially skewed manner.

Hypothesis 5 *The amount of time it will take individuals to form an opinion will increase in the presence of a partisan endorsement if, in fact, partisan motivated reasoning is driving opinion formation (and individuals are not simply following a party endorsement as a way to reduce cognitive effort).*

A final hypothesis concerns what might happen if partisan motivated reasoning is at work. Specifically, when individuals engage in partisan motivated reasoning, their

goal is to affirm an opinion they already hold (Taber and Lodge 2006). In this sense, individuals may view new information as bolstering their prior opinion, and such added evidence may boost the certainty—and, consequently, the strength—of their opinion (Atkeson and Maestas 2012; Druckman and Leeper 2012; Druckman and Bolsen 2011). In contrast, people will sort through evidence that they see as going in different directions when they are motivated by an accuracy goal. This may stunt attitude strength and, hence, people may attach less importance to their opinion. Along these lines is research by Brader (2006, Chaps. 4–5) who reports decreases in opinion strength when individuals are anxious, an affective state that prompts information acquisition (and has been shown elsewhere to limit motivated reasoning; see Atkeson and Maestas 2012).

Hypothesis 6 *Individuals' will express greater strength in an opinion if it is formed via partisan motivated reasoning.*

Experiment

We tested our hypotheses with a survey experiment in August 2010. We used the Internet to draw a sample that was representative of the U.S. population.⁷ A total of 1,600 respondents took part. We opted to focus on opinions about an energy policy for a number of reasons. First, it is clearly a salient issue area of increasing importance. Second, few studies to date explore the dynamics of opinions about energy policy (for a review, see Bolsen and Cook 2008). Third, both parties offered support for various energy propositions, which was a necessary element if we are to test varying party endorsements. For example, the *Energy Policy Act of 2005* was originally sponsored by three Republicans: Representatives Joe Barton [R-TX6] (primary sponsor), Richard Pombo [R-CA11], and William Thomas [R-CA22], but received wide Democratic support. The *Energy Independence and Security Act of 2007* was sponsored by Democratic Representative Nick Rahall of West Virginia, but it ended up being signed into law by Republican President George W. Bush.⁸ In the House, 96 Republicans voted “no,” 95 voted “yes,” and 10 did not vote; while

⁷ We contracted with a survey research company (Bovitz Inc.) to collect the data. The sample was drawn from a panel of respondents who have opted into complete online surveys. The panel was originally developed based on a random-digit-dial (RDD) telephone survey, where to enter the panel a respondent needed to have access to the Internet. (In this sense, it is a non-probability sample in the same way as those taken by firms such as YouGov are non-probability samples.) The panel has continued to grow based on ongoing RDD recruiting and referrals. From the panel, which has ~1 million members, a given sample is drawn using a matching algorithm to ensure that those screened to qualify for the survey constitute a sample that demographically represents the United States.

⁸ To explore the possibility of extra-ordinary pre-treatment effects, we content analyzed news articles from *The New York Times* and *The USA Today* from June 2008 to approximately June 2009 that included one of the following terms in the headline or lead paragraph: “energy policy,” “energy crisis,” “energy shortage,” or “energy plan.” From these, we selected articles that met specific criteria to ensure they are about the U.S. energy situation. This resulted in a total of 67 articles (28 from the *USA Today* and 39 from the *NYT*). We found that 39 % mentioned some type of partisan content (from one party) and 6 % mentioned some sort of bipartisanship. These results suggest nothing out of the norm a la pre-treatment and that partisanship plays a role in these discussions.

219 Democrats voted “yes,” 4 voted “no,” and 9 did not vote. In the Senate, it was a total of 86 “yes” votes to 8 “no” votes, and, as mentioned, a Republican President signed the bill into law. Thus, we can credibly and honestly attribute the Energy Act of 2007 to either party or to both. We decided to focus on the 2007 Act for this reason.

In order to construct a baseline condition, we needed to isolate portions of the Act that would not automatically trigger partisan motivated reasoning. While the 2007 Act had various attributes, we focused on three central tenants that, via pre-tests, we found did not signal a partisan slant in one direction or another.⁹ We told all respondents:

We are next going to ask you what you think about parts of the 2007 Energy Independence Act. The Act included the following provisions:

- Requires U.S. automakers to boost gas mileage to 35 miles per gallon for all passenger cars by 2020, which is a 40 % increase.
- Funds for research and development of solar and geothermal energy, and for the increased production of biofuels.
- Provides small businesses loans toward energy efficiency improvements.

This is the only information control group participants received, followed by the measures we describe below. We opted for these elements because, as confirmed by our aforementioned pre-test, it was brief enough that people could recall the information, and it includes elements that may be construed as traditionally more liberal (e.g., funds for alternative energies) or conservative (e.g., small business loans). Before discussing our measures, we first describe how we manipulated processing motivation and endorsements.

Design

We randomly assigned participants to one of three motivational conditions: no motivation (in which case, nothing was added to the above description), a directional motivation condition (in which case, a partisan directional goal was induced), and an accuracy motivation condition (in which case, an accuracy goal was induced). We opted for three motivational conditions because, as explained, a partisan directional motivation is the inverse of an accuracy motivation, and thus, a useful point of comparison.

Operationally, we followed the conventional approach within psychology for inducing an accuracy motivation by asking participants to consider multiple perspectives and telling them they would later have to justify the reasons for their judgment (e.g., Kunda 1999; Tetlock 1986; also see note above on our approach). Specifically, the introduction prior to the bullet points concerning the Act read:

We are next going to ask you what you think about parts of the 2007 Energy Independence Act. **When thinking about your opinion, please try to view**

⁹ We asked pre-test respondents whether they thought the Act was sponsored by Democrats or Republicans, and we found no significant differences in presumed attributions.

the policy in an evenhanded way and from various perspectives. We will later ask that you justify the reasons for your judgment – that is, why the policy's content is more or less appealing. The Act included the following provisions:...

The bolded portion highlights the motivated reasoning manipulation. It is bolded here for presentational purposes and was not bolded in the original survey. Note that we did, in fact, later ask for such justification.

There is much less prior research to which we can turn to for guidance when it comes to inducing a directional motivation in the opinion formation process as most prior work focuses on inducing an accuracy goal.¹⁰ Thus, we induced respondents to justify why they affiliate with a party as a way to motivate the defense of one's partisan identity prior to evaluating the energy law. Specifically, the introduction prior to the bullet points concerning the Act read:

We are next going to ask you what you think about parts of the 2007 Energy Independence Act. **When thinking about your opinion, please consider the bill was passed during a period of divided government where fellow partisans voted together nearly 90 % of the time. This was necessary to ensure coherent policy programs. We will later ask you about your party and why you affiliate with it (or why you choose to not affiliate with a party).** The Act included the following provisions:...

We again bolded the manipulation here, although this was not done in the actual survey; also, we did, in fact, later ask participants why they affiliate with a party. The directional manipulation puts an emphasis on defending one's partisanship and accentuates partisan identity.¹¹ Emphasizing the importance of coherent partisanship also makes clear that party identification matters in this context.

We also randomly assigned participants to one of five partisan endorsement conditions. The partisan endorsement always came after the processing manipulation; for example, the accuracy motivation treatment followed by a Democratic Party endorsement read (with the endorsement manipulation in bold; again, it was not bolded in the survey):

We are next going to ask you what you think about parts of the 2007 Energy Independence Act. When thinking about your opinion, please try to view the policy in an evenhanded way and from various perspectives. We will later ask that you justify the reasons for your judgment – that is, why the policy's content is more or less appealing. **The Energy Act, overall, was widely**

¹⁰ Personal communication, Charles Taber 12/28/09, and personal communication Milton Lodge 12/31/09. The closest example we could find was Boiney et al. (1997, p. 8) who ask respondents to decide whether to introduce a new product for a company with a directional manipulation telling them that the product is profitable and that past proposals have been turned down too quickly. We build on this general approach. Redlawsk (2002) manipulates motivation in a study of motivated reasoning, but focuses on on-line versus memory-based processing; he assumes on-line is the default, and then manipulates memory-based processing by telling people they will have to list everything they can remember and justify their choice. This latter aspect will likely prompt more accuracy processing, which is what Redlawsk (2002) wants to show—i.e., that memory-based processing moderates motivated reasoning.

¹¹ We thank Charles Taber for suggesting this specific approach; personal communication, 1/4/10.

supported by Democratic representatives and included the following provisions:...

The Republican endorsement was identical, but instead of saying “Democratic” it said “Republican.” Again, this statement is true if one focuses on the final vote margin in the Senate and President Bush signing the bill into law. For a Democrat, the Republican endorsement would be the “different” party condition (and vice versa).

The consensus bipartisan endorsement replaced “... was widely supported by [Democratic/Republican] representatives” with “was widely supported by representatives from both parties...” The idea here, as motivated by Hypothesis 4, is that the Act has the full support of both political parties; thus, we anticipate partisan motivated reasoning in the presence of a consensus bipartisan endorsement when directional motivated reasoning is induced. This differs from Hypothesis 3 which predicts that introducing intra-party conflict/disagreement will decrease the likelihood of partisan motivated reasoning. The cross-partisan bipartisan endorsement stated that the Energy Act “was supported by some, but not all, representatives, of both parties...” The idea here is to make clear that members within each party were divided.

Table 1 displays the conditions to which respondents were randomly assigned. For the “same” and “different” party conditions, we simply matched people’s self-reported partisan identification (measure described below) with the party endorsement in the condition to which participants were randomly assigned. Table 1 also lists predictions based on our hypotheses relative to the baseline we use to evaluate whether partisan motivated reasoning slants opinions—i.e., no partisan endorsement with an accuracy reasoning motivation (Condition 3, Table 1). As mentioned, we include an accuracy inducement as part of the baseline condition since we suspect that in the absence of such an inducement motivated reasoning may occur if, as mentioned, directional reasoning is the default method for forming evaluations in political contexts. We recognize that this is a high standard, but we believe it provides a normatively compelling baseline (see Druckman 2012). Not only is it obtainable, but it also enjoys a number of other advantages over alternative approaches. This standard addresses Schattschneider’s (1960, p. 132) concern that “the most disastrous shortcomings of the system have been those of the intellectuals whose concepts of democracy have been amazingly rigid...” (As we will note below, our results are robust to using a baseline that includes no accuracy inducement.)

For the “no motivation” conditions displayed in Table 1, we do not include predictions, instead writing “depends,” by which we mean the impact of any endorsement is contingent on whether the “norm” is to pursue a directional or accuracy goal in the absence of an experimental inducement toward one of these motivations. We also do not offer predictions in the conditions in which no endorsement is provided in the context of a directional or accuracy motivational inducement (see Table 1), because it is unclear how individuals will respond when not given a partisan endorsement to anchor evaluations *per se*.

Table 1 Experimental conditions and predictions

	No endorsement	Same party endorsement	Different party endorsement	Consensus endorsement	Cross-partisan endorsement
No motivation	<i>Condition 1</i> Control/ baseline ?	<i>Condition 4</i> Depends	<i>Condition 7</i> Depends	<i>Condition 10</i> Depends	<i>Condition 13</i> No change (Hyp. 3)
Directional motivation	<i>Condition 2</i> ?	<i>Condition 5</i> Increase support (Hyp. 1)	<i>Condition 8</i> Decrease support (Hyp. 1)	<i>Condition 11</i> Increase support (Hyp. 4)	<i>Condition 14</i> No change (Hyp. 3)
Accuracy motivation	<i>Condition 3</i> Baseline	<i>Condition 6</i> No change (Hyp. 2)	<i>Condition 9</i> No change (Hyp. 2)	<i>Condition 12</i> No change (Hyp. 2)	<i>Condition 15</i> No change (Hyp. 2 & 3)

Measures

We included appropriate measures to test each of our hypotheses, as well as a number of other variables shown in prior work to influence attitudes toward energy policies. We discuss the control measures and models that include these variables as robustness checks in Appendix 1 (Tables 5, 6); all of the main treatment effects we report below are robust to the inclusion of the full set of control variables.

We measured party identification with a standard, fully-labeled, 7-point measure that asked, “Generally speaking, which of the options on the scale below best describes your party identification?” where 1 = “strong Democrat” and 7 = “strong Republican.” Like other studies of partisan attitudes, we group leaning partisans with partisans because they tend to behave similarly (e.g., Baum and Groeling 2009; Bullock 2011; Clarke and Stewart 1998; Dennis 1992; Druckman 2001; Druckman et al. 2012; Keith et al. 1992; Levendusky 2010; Magleby et al. 2011; Petrocik 1974; 2009). We also follow these studies by excluding individuals who identify as a pure Independent. In our case—as with many other Internet samples—the percentage of respondents who identify as an Independent is larger than that found in the National Election Studies. This seems to be an unexplained dynamic found in most web-based surveys (e.g., Chang and Krosnick 2009; Malhotra and Krosnick 2007). Our total *N* is 1,070 once we exclude pure Independents with 56.5 % identifying with the Democratic Party and 43.5 % with the Republican Party.

Our central dependent variable is straightforward and was asked immediately after exposure to an information treatment (see above). Respondents were asked: “Given this information, to what extent do you oppose or support the Energy Act?” on a 7-point fully labeled scale ranging from 1 = “strongly oppose” to 7 = “strongly support.” The mean score is 4.97 (Std. Dev. = 1.66). This is the same type of dependent variable used in prior studies of partisan motivated reasoning such as Taber and Lodge (2006).

Table 2 Support for the 2007 Energy Act by Condition

	No endorsement	Same party	Different party	Consensus endorsement	Cross-partisan endorsement
<i>Scores by condition</i>					
No motivation	(Condition 1) Mean: 5.21 (Std. Dev.: 1.78) 90 % CI: (4.87, 5.56); N = 73	(Condition 4) 5.30 (1.39) (5.03, 5.57); N = 73	(Condition 7) 4.07 (1.79) (3.74, 4.40); N = 80	(Condition 10) 5.37 (1.59) (5.04, 5.70); N = 64	(Condition 13) 4.89 (1.41) (4.60, 5.18); N = 66
Directional motivation	(Condition 2) 5.24 (1.65) (4.93, 5.56); N = 77	(Condition 5) 5.74 (1.23) (5.51, 5.97); N = 79	(Condition 8) 3.96 (1.59) (3.65, 4.26); N = 76	(Condition 11) 5.50 (1.37) (5.25, 5.77); N = 77	(Condition 14) 5.05 (1.39) (4.78, 5.34); N = 68
Accuracy motivation	(Condition 3) 4.76 (1.54) (4.44, 5.08); N = 65	(Condition 6) 4.59 (1.99) (4.17, 5.02); N = 62	(Condition 9) 4.90 (1.49) (4.62, 5.19); N = 76	(Condition 12) 5.02 (1.78) (4.68, 5.37); N = 73	(Condition 15) 4.78 (1.79) (4.40, 5.17); N = 61

Entries in each cell report the mean support for the 2007 Energy Act (1–7 oppose/support scale), standard deviation in parentheses, 90 % confidence interval associated with estimated support in parentheses, and the *N*. Baseline condition is in boldface

We measured the response time it took for individuals to answer this question to explore how partisan endorsements shape opinions and test Hypothesis 5. We follow Mulligan et al.'s (2003) suggestion of analyzing response times using a Cox proportional hazard model with logged response times (more on this below). We also added a conventional measure to assess opinion strength regarding support for the Act. Respondents were asked, immediately after the question about support for the Energy Act, “How important to you is your opinion towards the Energy Act (e.g., how strongly do you feel about your opinion)?” on a 7-point, fully labeled scale ranging from 1 = “extremely unimportant” to 7 = “extremely important.”

Results

We begin by reporting the impact of the experimental conditions on support for the 2007 Energy Act. We report, in Table 2, the mean support for the Energy Act, standard deviation, 90 % confidence interval, and *N* for each condition.¹² The results are perhaps easier to interpret with a figure demonstrating changes in support for the Energy Act across experimental conditions.

We plot, in Fig. 1, the change in support for the 2007 Energy Act for each condition relative to the baseline (i.e., no endorsement, accuracy reasoning

¹² We use one-tailed tests throughout as is conventional given clear directional predictions; see Blalock 1979; hence our 90 % confidence intervals.

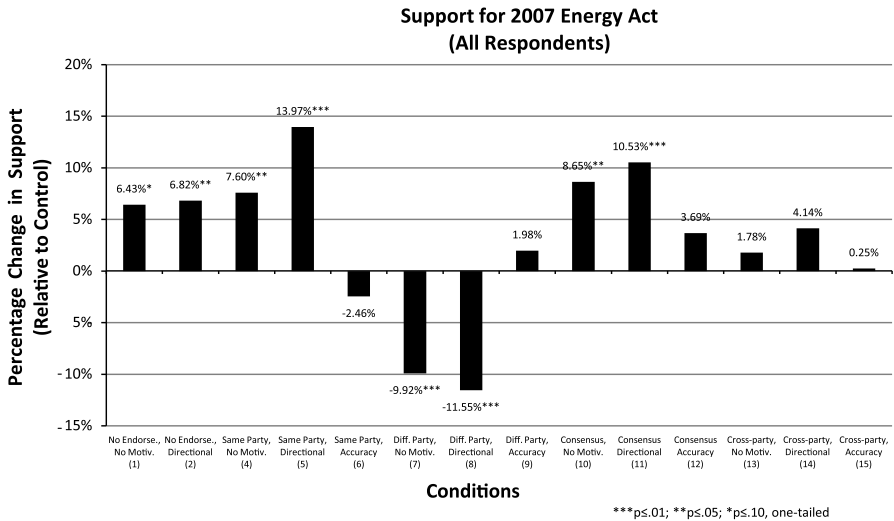


Fig. 1 Support for the 2007 Energy Act

motivation, see Table 1). Figure 1 displays the percentage change in the likelihood of support for the Act for each condition relative to the baseline's mean score of 4.76 on the 7-point response scale. All of the conditions that are significant in Fig. 1 remain significant when we estimate support for the Energy Act using an ordered probit model which includes additional control measures, as reported in Table 5 of Appendix 1.¹³

The first notable result is the strong support for Hypothesis 1. When individuals are primed to defend their partisan identity, they shift their evaluations of the Act toward the position endorsed by their own party when those positions are provided (+13.97 % vs. the control, Condition 5, Fig. 1), and away from positions endorsed by the other party when those positions are provided (−11.55 % vs. the control, Condition 8, Fig. 1). Thus, there is clear evidence of motivated reasoning in the conditions where a partisan endorsement is provided and a directional motivation is induced.¹⁴ The shifts in support for the Act are smaller in magnitude in the absence of a directional inducement (+7.60 and −9.92 % vs. the control), but in the same direction (see Conditions 4 and 7, respectively, Fig. 1). Thus, while we did not directly hypothesize that the no motivation conditions would resemble the directional conditions, this seems to be the case—sans an accuracy inducement on this issue, partisan motivated reasoning occurs.

There is also clear support for Hypothesis 2 which predicted that a motivation to form an accurate, or correct, opinion would eliminate partisan motivated reasoning. There is no significant difference in support for the Energy Act relative to the baseline (see Conditions 6, 9, 12, and 15, Fig. 1) in every case where we induce an

¹³ The question wording and distribution of each response for all control variables is reported in Table 6.

¹⁴ Note that moving in the opposite direction of an out-party endorsement is consistent with others who find a similar backlash effect (Cohen 2003; Redlawsk 2002).

accuracy motivation, regardless of whether a partisan endorsement is present. Clearly, when individuals are induced to hold “correct” views (i.e., justify their opinions), partisan motivated reasoning does not slant opinions.

Cross-Partisan Versus Consensus Bipartisan Endorsements

We find strong support for Hypothesis 3, which focuses on the effect of a cross-partisan endorsement on support for the Energy Act. In the cross-partisan endorsement (Conditions 13 and 14, Fig. 1), partisan motivated reasoning disappears (i.e., support for the Energy Act in these conditions does not differ significantly from the baseline). This supports other recent work which clearly shows that political conditions can eliminate partisan motivated reasoning by introducing conflict that stimulates elaboration (Druckman et al. 2013). We also find strong support for Hypothesis 4. Individuals’ support for the Act significantly increases in the presence of a consensus bipartisan endorsement (Conditions 10 and 11) (of course when accuracy is induced, there is no effect, see Condition 12). Indeed, as expected, support for the Act in the consensus bipartisan conditions resembles the increase in support found in the directional processing, same party condition (Condition 5; likewise compare Conditions 4 and 10 to see partisan motivated reasoning in the absence of motivational prompts). People ostensibly hear that everyone in their party supports a policy, and, even though their party is joined in support of that policy by the opposition party, they still support it more than they otherwise would sans an endorsement. Thus, a consensus bipartisan endorsement does not decrease the likelihood of partisan motivated reasoning; rather, its effect on opinions is in line with that of a same party endorsement.¹⁵

How Partisan Motivated Reasoning Works and Opinion Strength

We next report how long it took respondents to answer our primary dependent measure asking about support for the Energy Act. As explained, analyzing response latency enables us to probe the psychology underlying partisan motivated reasoning. If it works as a perceptual screen (as opposed to an opportunity to skip over substantive information), we would see longer response times in the conditions in which a partisan endorsement is present (see Hypothesis 5). On the other hand, if participants are using the endorsements as a way to ignore other information, processing times should become *shorter* in the conditions where a partisan

¹⁵ Note that the directional processing motivation Conditions (2, 5, 8, 11, and 14) significantly exceeded the no manipulation processing Conditions (1, 4, 7, 10, and 13) in only one of five cases. The one case is the same party endorsement, no motivation relative to same party endorsement, directional motivation conditions (Conditions 4 and 5, $p < 0.05$). The no endorsement conditions with no processing manipulation (1) and a directional processing inducement (2), perhaps surprisingly, register significant increases in support for the policy. Interestingly, the increase in support in these conditions stems entirely from movement among Democrats (evidence on this is available upon request from the authors). In short, in the absence of any processing inducement, Democrats seem to engage in motivated reasoning to a greater extent than Republicans when they are induced to think about and justify their views. This presumably reflects that energy is an issue owned by Democrats (see Druckman et al. 2009a).

endorsement is present. The time measured is the point at which the question appeared to the point at which an answer to the question is provided (in milliseconds).

We follow Mulligan et al.'s (2003) suggestion of analyzing response latency times using a Cox proportional hazard model. This is a type of survival model that explores the time that passes before an event occurs (i.e., the answer to a question); however, it reports coefficients that represent a hazard rate and thus higher coefficients indicate the question was answered more quickly. We also follow others in using a logged measure of response latency—specifically logged milliseconds (Huckfeldt et al. 1999; Mulligan et al. 2003, p. 273); however, our results are consistent if we use ranked response times (e.g., Petersen et al. n.d.) or the untransformed data.

We are confident that our results are not influenced by extreme outliers. The use of logs limits outlier effects. Moreover, the company we contracted with cut off extremely slow responders, further limiting the influence of outliers. Finally, our results are robust even if we eliminate some of the remaining longer times. Also note that while small changes in logged milliseconds may seem trivial to the naked eye they are difficult to interpret straightforwardly given the logged response times. More importantly, in survey responses even these small changes can suggest powerful implicit processes (see Chugh 2004; Petersen et al. n.d.).

Table 3 reports the results of two separate models. Recall that higher coefficients suggest a failure to spend as much time answering the question. Model 1 displays the results with all conditions included except for the baseline, which is the same as in all prior analyses—i.e., no endorsement, accuracy motivation. The results presented in Model 1 show that the accuracy motivation (except for Condition 6) and cross-partisan bipartisan conditions did significantly increase processing time (as we expected); however, with one exception (Condition 10), the other conditions were answered more slowly suggesting thoughtful/elaborative processes underlying partisan motivated reasoning.

Model 2 in Table 3 includes only the directional reasoning and single party/consensus endorsement conditions in order to test whether adding a party endorsement increases processing time relative to the pure control group baseline (i.e., here the baseline is Condition 1). There is clear evidence, in support of Hypothesis 5, that adding a party endorsement increases processing time significantly. The other no endorsement Condition (2) is not significantly different from the baseline, as one would expect, but five of the other six conditions in which a same party, different party, or consensus endorsement is present significantly increases the time participants spent answering the dependent measure. Thus, people do not appear to be using partisan endorsements as a way to avoid effortful cognition (i.e., as a heuristic processing shortcut), but, are instead basing their evaluations in part on their own partisan identity. In short, the presence of an endorsement significantly increases processing time (Conditions 5, 7, 8, 10, and 11, Model 2, Table 3), which indicates more cognitive effort is being expended by participants in these conditions. In sum, the results suggest that motivated reasoning is driving the observed impact of partisan endorsements on policy evaluations—this supports Petersen et al.'s (n.d.) contention that partisan sponsorship colors one's interpretation of the substance of political information rather than serving as a means to avoid effortful cognition.

Table 3 Proportional hazard model using log time (response latency, milliseconds)

Condition	Hazard ratio (standard error) model 1	Hazard ratio (standard error) model 2
No endorse./no motiv. (1)	2.12 (.36)***	–
No endorse./directional (2)	1.94 (.32)***	.91 (.14)
Same party/no Motiv. (4)	1.82 (.31)***	.85 (.14)
Same party/directional (5)	1.59 (.26)***	.75 (.12)**
Same party/accuracy (6)	1.00 (.17)**	–
Diff. party/no motiv. (7)	1.28 (.21)*	.61 (.09)***
Diff. party/directional (8)	1.31 (.22)*	.62 (.10)***
Diff. party/accuracy (9)	.97 (.16)	–
Consensus/no motiv. (10)	1.20 (.21)	.56 (.09)***
Consensus/directional (11)	1.41 (.23)**	.65 (.10)***
Consensus/accuracy (12)	1.11 (.19)	–
Cross-party/no motiv. (13)	1.10 (.19)	–
Cross-party/directional (14)	1.00 (.17)	–
Cross-party/accuracy (15)	1.16 (.20)	–
Log-likelihood/ <i>N</i>	–6368.11/1,070	–3225.47/599

Condition numbers correspond to those listed in Table 1. Standard deviations are listed in parentheses. Baseline condition in model 1 is Condition 3 (see Table 1). Baseline condition in model 2 is Condition 1
 * $p < .1$; ** $p < .05$; *** $p < .01$ (one-tailed tests)

To test Hypothesis 6, we measured opinion strength. We did so to see if those who engage in motivated reasoning when forming their opinion express increased strength in the opinion. Table 4 reports the results from an ordered probit estimation of the importance individuals attach to their opinions regarding support for the Energy Act with a dichotomous measure included for each experimental condition. There is strong support for Hypothesis 6. Participants in all of the conditions in which support for the Act was shown to be based on partisan motivated reasoning—i.e. all same party, different party, and consensus bipartisan endorsement conditions (except Condition 10)—reported significantly greater importance associated with their opinion toward the Energy Act. This effect is largest in the different party endorsement (7 and 8) and consensus endorsement Conditions (10 and 11). We believe this could have substantial downstream consequences as it makes people less persuadable, less flexible, and more dogmatic (see Druckman 2012; Lavine et al. 2012 for detailed normative discussion).

Conclusion

Partisan motivated reasoning depends on individual characteristics and elite partisan circumstances. We find clear evidence of partisan motivated reasoning when we provided endorsements from either an in- or out- party. For instance, Democrats and Republicans are significantly *more supportive* of the Energy Act when it is endorsed

Table 4 Perceived importance of the 2007 Energy Act

Condition	Coefficient (standard error)
No endorse./no motiv. (1)	.06 (.17)
No endorse./directional (2)	.22 (.17)
Same party/no motiv. (4)	.26 (.17)*
Same party/directional (5)	.26 (.17)*
Same party/accuracy (6)	.30 (.18)*
Diff. party/no motiv. (7)	.42 (.17)***
Diff. party/directional (8)	.34 (.17)**
Diff. party/accuracy (9)	−.15 (.17)
Consensus/no motiv. (10)	.41 (.18)***
Consensus/directional (11)	.39 (.17)***
Consensus/accuracy (12)	.22 (.17)
Cross-party/no motiv. (13)	.16 (.17)
Cross-party/directional (14)	−.15 (.17)
Cross-party/accuracy (15)	−.01 (.18)
Log-likelihood/N	−1764.52/1,070

Entries are ordered probit coefficients with standard errors in parentheses

* $p < .1$; ** $p < .05$;

*** $p < .01$ (one-tailed tests)

by in-group partisan elites, but significantly *less supportive* of the same policy when it is endorsed by out-group partisan elites. On the other hand, partisan motivated reasoning disappeared when we either induced people to form an accurate opinion or when there was a cross-partisan bipartisan endorsement. Our results additionally provide suggestive evidence that partisan motivated reasoning works as a perceptual screen—i.e., people read and interpret the information in an effortful manner and do not simply follow the endorsement as a way to avoid thinking.

Where does this leave us when it comes to understanding partisanship and its effects on public opinion formation? The last 5–10 years has seen a renaissance of work on partisan motivated reasoning. As mentioned, scholars have now moved beyond identifying its occurrence to isolating moderators including individual level factors such as sophistication and opinion strength, message repetition, information search, and partisan polarization. To this, we added what we consider to be two critical aspects of the reality of politics—the *source of political information and the motivation underlying individuals' opinion formation process*. From here, we believe it is time scholars move beyond testing moderators and/or documenting the presence of partisan motivated reasoning and work towards a more complete theory of partisan motivated reasoning in political contexts. Indeed, as far as we know only Gerber et al. (2010) have definitively shown that partisanship causes certain behaviors. A fuller theory clearly will involve considering the relative impact of individual level variables (e.g., we did not find effects for sophistication), context, and source. We believe the motivation driving opinion formation clearly matters and this has been a topic lacking in study.

It may be that political scientists instead focusing on the content or basis of opinions (e.g., how much knowledge, ideological constraint), may be best off looking at motivation. For example, issue publics may be motivated on some issues

and not others (e.g., Bolsen and Leeper n.d.). Another primary source of prompting accuracy motivation may be the social context (e.g., Sinclair 2012). Indeed, if one anticipates having to explain and justify oneself (akin to the manipulation we employed) in a social setting, it may generate an accuracy motivation. But this is where things can get complicated. If that social group is a mixed group, then it may be akin to our accuracy motivation that focused largely on generating a focus on substance. However, if that group is comprised of all in-party strong partisans, an accuracy motivation may lose out to a directional motivation (e.g., Druckman et al. 2013). The role of groups and their relationship to motivation in the opinion formation process seems like an area ripe for future work.¹⁶ More generally, unpacking motivation requires a mix of a consideration of material incentives (e.g., Prior and Lupia 2008; Bullock et al. 2013) in addition to social ones, as well as the potential for hybrid goals and alternative goals besides accuracy and directional.

Finally, there are several intriguing/vexing normative implications of partisan motivated reasoning. There is a lack of consensus among scholars as to what constitutes a normatively appealing opinion (see Druckman 2012). Our results will be troubling for people who worry that partisan motivated reasoning leads to lower quality opinions due to dogmatism and inflexibility (e.g., Lavine et al. 2012). However one could also make the case that relying on one's partisanship (e.g., a partisan directional goal) in the face of limited policy information is "smarter" than trying to assess the policy's content oneself (see Druckman et al. 2012 for further discussion). The bottom line is that our results only further highlight the lack of consensus on what a quality opinion is and the need for a much more detailed discussion and exchange on this topic between empirical and normative scholars—perhaps the focus should shift from considering the informational basis or ideological nature of opinions to the motivation underlying the opinion formation process, but this raises questions about unpacking the determinants of an accuracy motivation, as discussed above. The issue on which we focused—energy policy—deserves a final word. Energy policy, as mentioned, is a topic that has received scant attention among public opinion scholars. Given the future challenges of long-term sustainability, we see this issue area as one in need of much greater exploration as a topic itself.

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¹⁶ There also is the question about whether partisan motivated reasoning leads to polarization. Elite partisan polarization itself appears to increase motivated reasoning (e.g., Druckman et al. 2013; Levendusky 2010; Slothuus and de Vreese 2010). In other words, partisan reasoning will be most likely to occur on issues where the parties conflict or are most dissimilar. We cannot directly examine this because we look at a single case at a single point in time, and, thus, there is no objective variation in polarization. We also do not manipulate polarization (perceptions) as Levendusky (2010) and Druckman et al. (2013) do. We did, however, measure perceptions of partisan similarity. Specifically, we asked "In general, to what extent do you think Democrats and Republicans take similar or dissimilar policy positions?" on a 1–7 scale with higher scores indicating greater similarity. Although we do not report the results from this analysis here (these are available upon request from the authors), we find clear evidence that partisan motivated reasoning occurs to a greater extent among those who view the parties as most different on this issue. This provides further evidence suggesting that partisan motivated reasoning can exacerbate polarization.

Appendix 1

Table 5 offers a robustness check by adding controls for models we used to estimate treatment effects. We include the following categories of variables (see the precise wording for each measure in Table 6).

1. *Demographics and control variables.* We include standard demographics that tend to influence political attitudes: gender (*Female*), minority status (*Minority*), *age*, *education*, partisanship, income, trust, and knowledge in different domains (i.e., *political knowledge*, *energy knowledge*, and *science knowledge*). We do not have clear directional predictions for these variables so we use two-tailed tests for statistical significance. We also measure media exposure with the idea that any coverage may have been positive in terms of the need to address energy problems.
2. *Values/Ideology.* We measure political *ideology* with the idea that conservatives will be less supportive of the Act due to increased government regulation. We also include two worldview variables of communitarian (*EqRgtsToofar*) and egalitarianism (*GovOut*) (Kahan et al. 2009). We expect those who are more individualistic (anti-communitarian) and hierarchical (anti-egalitarian) will be less supportive of the law as they tend to put more faith in market solutions. We include a variable capturing the extent to which the economy is favored over the environment (*EconEnv*).
We also added a question that asked about the extent to which individuals believe in the “precautionary principle” that is: “When it comes to decisions about energy production, do you think the guiding principle should be whether there will be harm to the environment and/or the public?” (i.e., *Precaution*).
3. *Attitudes about government’s role when it comes to energy policy.* We included an item that measures the extent to which the government is the cause of an energy problem (*CauseGov*). The more people view government as a cause, the less likely they may be to see government as the solution. We also ask explicitly about whether government is responsible for addressing the nation’s energy problem (*RespGov*), which should correlate with increased support since this is a government law. We include an item that rates the extent to which laws are a good way to address energy issues (*ApphConsum*). Finally, we measured trust in government to specifically address energy problem (*TrustUSGov*). This is interesting because it allows us to see if a domain specific trust in government measure is more appropriate than the aforementioned general trust in government item (*TrustGov*) in explaining support for the Energy Act. Note that the two variables are correlated at about .61, but this does not present a problem in terms of estimating a model with both variables included.

We recognize that several Conditions (e.g., 6, 9, 12) offer similar predictions and thus we could merge these dichotomous variables in the regression (via interactions). If we were to do so the results would be robust/unchanged. We opted to not do this simply because we offered condition by condition predictions in Table 1 and thus believe the approach we employ is the most straightforward.

Table 5 Determinants of support for 2007 Energy Act

Variable	Coefficient (standard error)
No endorse./no motiv. (1)	.29 (.18)*
No endorse./directional (2)	.38 (.17)**
Same party/no motiv. (4)	.37 (.17)**
Same party/directional (5)	.73 (.17)***
Same Party/accuracy (6)	-.08 (.18)
Diff. party/no motiv. (7)	-.56 (.17)***
Diff. party/directional (8)	-.58 (.17)***
Diff. party/accuracy (9)	.04 (.17)
Consensus/no motiv. (10)	.46 (.18)**
Consensus/directional (11)	.38 (.17)**
Consensus/accuracy (12)	.08 (.17)
Cross-party/no motiv. (13)	-.00 (.18)
Cross-party/directional (14)	.04 (.18)
Cross-party/accuracy (15)	.01 (.18)
Female	.01 (.07)
Minority	-.05 (.08)
Age	.00 (.00)
Education	.01 (.03)
Income	-.00 (.03)
Media	.18 (.13)
PIDrep	-.04 (.02)**
Ideology	.03 (.02)
EqRgtsToofar	-.03 (.01)**
GovOut	-.04 (.02)**
EconEnv	-.01 (.02)
Precaution	.11 (.03)***
TrustGov	.02 (.06)
TrustUSGov	.05 (.02)**
Political knowledge	.06 (.12)
Energy knowledge	.26 (.13)**
Science knowledge	.05 (.11)
CauseGov	-.04 (.02)*
RespGov	.07 (.02)***
ApphConsum	.12 (.02)***
Log-likelihood/N	-1743.67/1,070

Entries are ordered probit coefficients with standard errors in parentheses

* $p < .1$; ** $p < .05$;

*** $p < .01$ (one-tailed tests)

Appendix 2: Party Trust as a Moderator of Partisan Motivated Reasoning

Lavine et al. (2012) find that the ambivalence of one's partisan identity moderates partisan motivated reasoning. This is sensible because when one feels a strong attachment to one's party, he/she is more likely to reason in ways that defend and

Table 6 Descriptive statistics for control variables and names of condition variables

Variable	Question/distribution	Mean/ (std. dev.)
Female	Are you male (50 %) or female (50 %)	N/A
Minority	Which of the following do you consider to be your primary racial or ethnic group? (white = 73 %; minority = 27 %)	N/A
Age	What is your age?	45.47 (16.33)
Education	What is the highest level of education you have completed? (1 = less than high school (1 %); 2 = high school (16 %); 3 = some college (39 %); 4 = 4 year college degree (31 %); 5 = advanced degree (13 %))	N/A
Income	Estimate of family income (before taxes) 1 = < \$30,000 (24 %); 2 = \$30,000–\$69,999 (42 %); 3 = \$70,000–\$99,999 (19 %); 4 = \$100,000–\$200,000 (13 %); 5 = > 200,000 (2 %)	2.24 (1.02)
Media	How often do you obtain energy information from... newspapers, TV, online (0–1 scale, alpha = .54)	N/A
PIDrep	Generally speaking, do you consider yourself a Democrat, Independent, or Republican? (1 = strong Democrat (16 %); 2 = weak Democrat (9 %); 3 = lean Democrat (14 %); 4 = Independent (33 %); 5 = lean Republican (12 %); 6 = weak Republican (6 %); 7 = strong Republican (12 %))	N/A
Ideology	Which point on this scale best describes your political views? very liberal (1) = 6 %; mostly liberal (2) = 10 %; somewhat liberal (3) = 11 %; moderate (4) = 36 %; somewhat conservative (5) = 14 %; mostly conservative (6) = 13 %; very conservative = 9 %	N/A
EqRgtsToofar	Agreement with “We have gone too far in pushing equal rights in this country.” (1 = strongly disagree (21 %); 2 = moderately disagree (9 %); 3 = slightly disagree (9 %); 4 = neither disagree nor agree (19 %); 5 = slightly agree (16 %); 6 = moderately agree (11 %); 7 = strongly agree (16 %))	3.95 (2.07)
GovOut	Agreement with “If the government spent less time trying to fix everyone’s problem, we’d all be a lot better off.” (1 = strongly disagree (6 %); 2 = moderately disagree (6 %); 3 = slightly disagree (7 %); 4 = neither disagree nor agree (19 %); 5 = slightly agree (17 %); 6 = moderately agree (16 %); 7 = strongly agree (28 %))	4.96 (1.82)
EconEnv	More important to “protect the environment” or “maintain prosperous economy”? (1 = definitely protect environment (8 %); 2 = very likely protect environment (9 %); 3 = probably protect environment (10 %); 4 = equally important (43 %); 5 = probably maintain prosperous economy (13 %); 6 = very likely maintain prosperous economy (10 %); 7 = definitely maintain prosperous economy (7 %))	4.03 (1.55)
Precaution	When it comes to decisions about energy production, do you think the guiding principle should be whether there will be harm to the environment and/or the public? Definitely should not be the guiding principle (1) = 2 %; should play a limited role (2) = 10 %; not sure (3) = 11 %; should play an important role (4) = 46 %; definitely should be the guiding principle (5) = 31 %	N/A
TrustGov	How much of the time do you think you can trust the government in Washington to do what is right? (4 = just about always (2 %); 3 = most of the time (18 %); 2 = only some of the time (61 %); 1 = never (20 %))	2.06 (0.66)

Table 6 continued

Variable	Question/distribution	Mean/ (std. dev.)
TrustUSGov	Rate how much <i>trust</i> you have in each source to deal with the nation's energy problems... [U.S. government]. None at all (1) = 19 %; not very much (2) = 23 %; a little (3) = 19 %; a moderate amount (4) = 19 %; a good amount (5) = 11 %; a great deal (6) = 7 %; complete trust (7) = 2 %	3.11 (1.60)
Political knowledge	Know majority required to over-ride veto (56 % correct) Know which party has majority in U.S. House = (72 % correct) Know whose responsibility it is to declare law unconstitutional = (76 % correct) Know current U.S. Sec. of State = (67 % correct)	.68 (.32)
Energy knowledge	Know the world's largest exporter of oil = (63 % correct) Know renewable energy sources = (63 % correct) Know most U.S. oil not imported from ME = (24 %)	.50 (.29)
Science knowledge	Is it true or false that lasers work by focusing sound waves? Which travels faster: light or sound? 0 correct = 14 %; 1 correct = 44 %; 2 correct = 42 %	.64 (.34)
CauseGov	Listed below are different sources people tend to mention when they think about the <i>causes</i> of the nation's energy problems. To the extent that there are problems, rate how responsible you think each source is for <i>causing</i> the U.S.'s energy problems... [U.S. government] not responsible at all (1) = 2 %; not very responsible (2) = 3 %; a little responsible (3) = 8 %; moderately responsible (4) = 14 %; responsible a good amount (5) = 20 %; very responsible (6) = 37 %; completely responsible (7) = 17 %	5.26 (1.38)
RespGov	Listed below are different sources people tend to see as responsible for <i>addressing (or fixing)</i> the energy situation. Rate how responsible you think each source is for <i>dealing with</i> the U.S.'s energy problems... [U.S. government] not responsible at all (1) = 3 %; not very responsible (2) = 3 %; a little responsible (3) = 5 %; moderately responsible (4) = 13 %; responsible a good amount (5) = 18 %; very responsible (6) = 38 %; completely responsible (7) = 21 %	5.35 (1.46)
ApphConsum	Response to "Do you think the success of energy policy depends on whether individual citizens take actions that reduce energy demand?" (1 = not at all (2 %); 2 = not much (3 %); 3 = a little (7 %); 4 = somewhat (14 %); 5 = a good amount (29 %); 6 = a great deal (29 %); 7 = completely depends (17 %))	5.18 (1.37)

cohere with his/her attachment (Bullock 2011; Cohen 2003). As that attachment weakens, the motivation to defend it may as well. Lavine et al. (2012) argue that those with weaker partisan attachments are less likely to engage in partisan motivated reasoning. They state (2012, p. 122): "partisan strength [i.e., ambivalence for them] ...undercuts the judgmental confidence that citizens typically derive from partisan cues, [and] they should turn away from these perceptual anchors and pay

more attention to the particulars. As a result, they should hold more accurate perceptions...”.

We did not include a measure analogous to theirs but we did measure a somewhat related measure of party attachment—trust in one’s party (see Visser et al. 2006 on attitude strength). Specifically, we asked “To what extent do you trust members of your political party to provide good advice about which energy policies to support?” on a 7-point, fully labeled scale ranging from 1 = “not at all” to 7 = “completely.” We opted for this domain specific trust measure given that people’s evaluation of a party often varies across issue domains, and we are interested in the strength of people’s attachment in the domain of energy.¹⁷

The bottom line is we find strong support for the argument that trust in one’s party moderates the effects stemming from partisan motivated reasoning. We display the results in Figs. 2 and 3, which are analogous to Fig. 1 except that Fig. 2 focuses on respondents with low trust ($N = 538$) and Fig. 3 looks only at those with high trust ($N = 506$). The figures show an enormous moderating effect of trust in one’s party on partisan motivated reasoning in evaluating the Energy Act. For those with relatively weak attachments to their partisan identity (Fig. 2), with one exception, there is evidence of partisan motivated reasoning *only* when there is an explicit directional motivation prompt and a partisan endorsement is present. The one exception is a significant effect in the other party, no motivation condition (Condition 7, Fig. 2). In cases of significance, the effects are smaller than in the “all respondent” data (Fig. 1). In short, individuals with weaker attachments to their partisan identity clearly engage in less partisan motivated reasoning.

The treatment effects among individuals with a stronger attachment to their partisan identification Fig. 3 show a much more pervasive influence stemming from the presence of a partisan endorsement. There are very large treatment effects in all of the directional motivation, party endorsement conditions—i.e., same party (Condition 5), other party (Condition 8), and consensus endorsement (Condition 11). However, as predicted, in the presence of a cross-partisan endorsement (Conditions 13, 14, and 15) the effect disappears. Also, in the accuracy manipulation conditions, as predicted, there continues to be no significant partisan motivated reasoning. In sum, those who are less trusting of their party are less likely to engage in motivated reasoning and do so only when explicitly prompted to defend/think about their partisan identity. On the other hand, those who have relatively higher levels of trust in their partisan identity are significantly more likely to engage in motivated reasoning when there is a partisan endorsement present. We ran interactions for cases where both low and high trust groups registered significant effects to explore differences between low- (Fig. 2) and high- (Fig. 3) trust individuals within the same condition. The results show, in every case, the differences are statistically significant (available upon request from the authors).

¹⁷ We employ a median split for this measure which allows us to focus on what are more likely to be qualitatively distinct groups (as do Druckman and Nelson 2003; Miller and Krosnick 2000, p. 305). We find consistent results, albeit slightly weaker, using a continuous measure rather than using a median split. Of note, we find our party trust measure does not moderate support for the Act in conditions where a party endorsement was not provided, as one would expect given trust should only moderate support for the Act in cases where partisan motivated reasoning occurs.

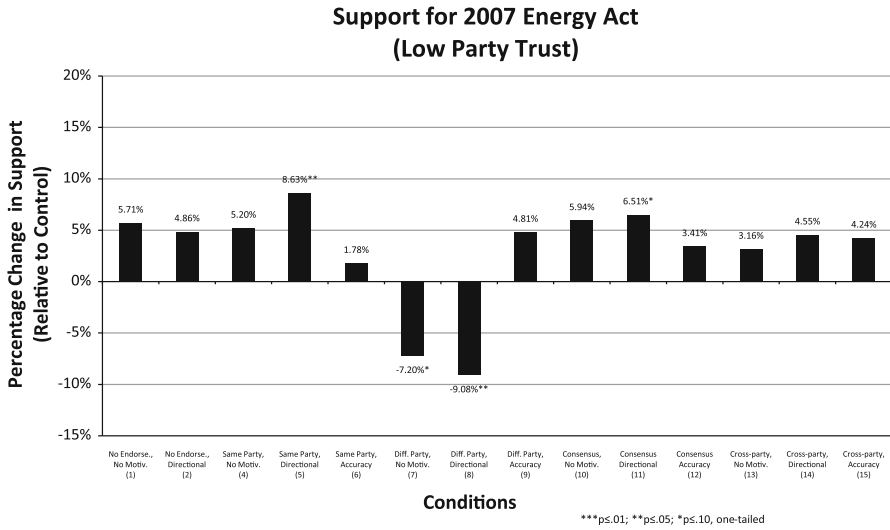


Fig. 2 Support for the 2007 Energy Act

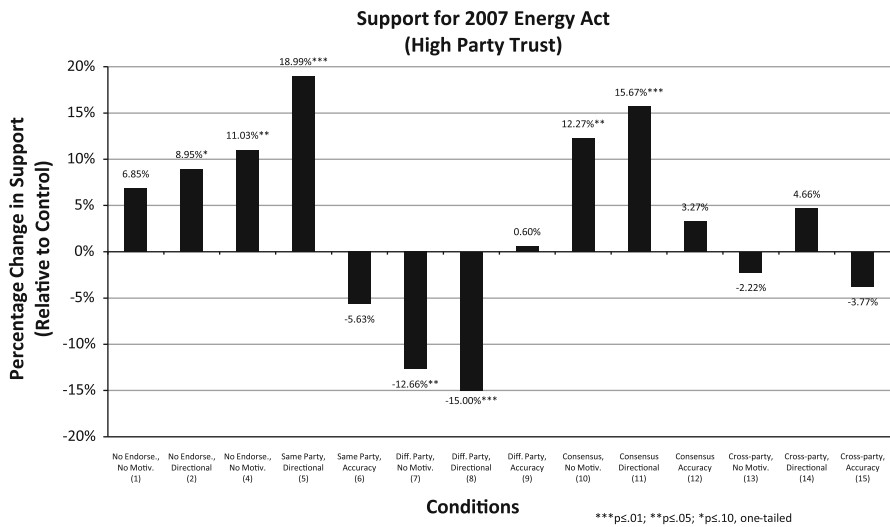


Fig. 3 Support for the 2007 Energy Act (high trust)

This is all quite interesting because we find results similar to Lavine et al. (2012) but using a distinct measure, speaking to the need for more work on moderators of motivated reasoning, starting with a direct comparison between the effectiveness of distinct constructs found to serve as a moderator.

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