

Motivated Reasoning about Public Performance: An Experimental Study of How Citizens Judge the Affordable Care Act

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ABSTRACT *Public performance reporting is often promoted as a means to better inform citizens' judgments of public services. However, political psychology has found evidence of motivated reasoning, with citizens' accuracy motives often supplanted by biased searching for and evaluation of information to defend prior political attitudes, beliefs or identities. We conducted a survey experiment to evaluate motivated reasoning about the performance of the US Affordable Care Act (also known as Obamacare), which has been politically contentious. In the experiment, we randomly assigned a sample of US adults to either a politics prime, to encourage partisan motivated reasoning, or a health care needs prime, to encourage accuracy motivated reasoning stemming from their own perceived need for health care. We then asked them to rate the strength of real performance information in the form of evidence statements about the Affordable Care Act and to choose real performance indicators from a graphical array. The findings show that the political prime strengthened partisan differences in both the ratings of evidence statements and the selection of performance indicators. Thus, for contentious public programs where partisan identities are activated, partisan motivated reasoning influences how citizens process performance information and thus may limit its potential for enhancing democratic accountability.*

KEY WORDS: *Performance measurement, accountability, health care, experimental methods, priming, behavioral public administration.*

INTRODUCTION

The dominant current view of reporting information about the performance of public services to citizens sees the reports as correcting information deficits. In this view, performance reporting better informs citizens' perceptions of public services and affects their attitudes and behavior towards them. Citizens are enabled to make informed choices about services they would like to use and are empowered to exercise political voice through voting or lobbying about vital public services, contributing to enhanced democratic accountability. Information about good performance can even help convince citizens to support the provision of public services or encourage their elected representatives to do so (see Hatry 1996; Gormley, 1998; Heinrich 2003; Pollitt and Bouckaert. 2004; Nielsen and Baekgaard 2015). However, extensive research in political psychology has shown that people's motivations influence the way they think and reason about information. Citizens' prior attitudes, beliefs and identities can lead to motivated processing of information entailing selective acceptance and use of facts and arguments (Taber and Lodge 2006). An important cause of political motivated reasoning is citizens' identification with political parties, which has been shown to affect their reasoning about political issues across a broad range of contexts (Slothuus and de Vreese 2010; Petersen, Skov, Serritzlew, Ramzoy 2013). Partisan motivated reasoning has, however, not previously been subject to analysis in the context of citizens' responses to the reporting of performance information about public services.

In this study, we demonstrate that partisan political motivated reasoning has important effects on how performance information about public services is processed by citizens, but that priming citizens to think about their need for the service diminishes this partisan motivated reasoning. The first section reviews the theory and prior research about motivated reasoning including partisan identity as a driver of such reasoning. In the United States (US) context, there is strong

partisan division about ends and means across broad swathes of welfare, health and other public services (Hetherington 2005; Jacobs and Skocpol 2012). To analyze partisan motivated reasoning, we utilize an experiment incorporating performance reporting about the Affordable Care Act (also known as Obamacare), which represents an historic but also politically contentious reform to the US health care system.

The second section sets out the design of the experiment consisting of two performance information processing tasks embedded in an experimental manipulation, which consists of ‘primes’ that promote or inhibit partisan motivated reasoning. Priming interventions selectively activate and increase the cognitive accessibility of some concepts above others (see Higgins, 1996, Kay and Ross 2003). In our study, the first experimental group is primed to think in a partisan way by being asked a series of questions about their political beliefs. In contrast, the second experimental group is primed to pursue accuracy based goals by being asked a series of questions about their own needs for and concerns about health and health care. We then present the participants with real performance information about the Affordable Care Act and have them process the information using two tasks, derived from Taber and Lodge (2006). In the first task, we ask citizens to assess the strength of evidence statements from a real performance report about the Affordable Care Act. In the second task, we ask citizens to choose the most useful performance information from a chart in the report showing various favorable and unfavorable indicators.

The third section reports our results, which reveal the inadequacies of viewing performance reporting as simply correcting an information deficit. In the evidence strength rating task, we find disconfirmation bias with Republicans giving evidence favorable to the Affordable Care Act a lower rating than Democrats, while Democrats give evidence unfavorable to the Act a lower

rating than Republicans. Moreover, the differences between Democrats and Republicans are greater under the political prime, but appear diminished under the health care needs prime. In the task involving choice of performance indicators, we find confirmation bias in the choice of performance indicators, with Democrats selecting more favorable indicators of the performance of the Affordable Care Act than Republicans. Again, we find these differences are accentuated under the political prime but attenuated under the health care needs prime.

Thus, our findings suggest that political motivated reasoning is more prevalent in public service contexts where citizens' partisan political thinking is activated, which characterizes much contemporary discussion of public services where there are party divisions. However, motivated reasoning appears to be tempered when citizens focus on their use of and need for the service, which may offer a way to generate more consensus about performance to inform policy debates. We develop this theme through exploratory analysis of whether presenting information affects polarization of views between people identifying with different parties. These findings suggest that, even in the presence of motivated reasoning, presenting information containing both favorable and unfavorable evidence appears to slightly reduce the polarization of participants' beliefs. We conclude by discussing the implications for using performance information to support the democratic accountability of public services and suggests avenues for future research.

MOTIVATED REASONING ABOUT PERFORMANCE INFORMATION

Motivated reasoning entails people's drives, needs, motives and goals affecting the ways in which they acquire and process information (Kunda 1990; Kruglanski 1996). Kunda (1990) and Taber and Lodge (2006:756) discuss directional and accuracy goals as a key distinction in

motivated reasoning. *Accuracy goals* motivate individuals to seek out, and carefully consider, relevant evidence so as to reach a correct conclusion about facts in a situation. In contrast, *directional goals* motivate them to apply their reasoning powers in support of the preservation, protection or defense of prior attitudes, beliefs, behaviors or identities.

Motivated reasoning with directional goals has been identified as an important influence on the processing of political information (Taber and Lodge 2006; Lodge and Taber 2013). According to the theory, a well-known politician or controversial issue triggers automatic affective responses that activate directional goals. Studies have found that citizens display a *disconfirmation bias* in a range of contexts; when reading arguments for and against a belief, citizens counter-argue contrary arguments and uncritically accept supporting arguments for their initial position on political issues (Taber and Lodge 2006; Lodge and Taber 2013). The same studies also find evidence of a *confirmation bias*; citizens seek out evidence that confirms their beliefs when they have a choice about which evidence to use. These are not the only directional goals that affect motivated reasoning. For example, people sometimes have a need for cognition such that they will spend more effort in scrutinizing information in order to feel that an appropriate amount of reasoning has been undertaken (Cacioppo, Petty, and Morris 1983). Kahan (2013) found that ideological motivated reasoning influenced the reception of policy relevant facts in policy debates. In particular, partisan political biases are especially common in affecting reasoning in certain contexts.

The influence of partisan motivated reasoning is greatest when partisan differences are salient or individuals are motivated to rely on their partisanship as a shortcut to establish their views about an issue (Druckman, Peterson, and Slothuus 2013; Petersen et al 2013; Slothuus and de Vreese 2010). Political systems in which democratically elected governments are responsible for setting

policy and administering public services create a context for partisan influences on citizens' reasoning because there is often debate between the parties over the shape and scope of major public services. Evidence suggests that citizens' previous electoral support for the party controlling government affects the reception of performance information about that government's public services. In an experiment presenting citizens with information showing their local government's services performed well, James (2011) found that supporters of the party in control of the government responded with a more positive assessment of performance and higher satisfaction than other citizens. In a related vein, an experimental study by Van Ryzin (2013) found that political conservatives were especially sensitive to being primed about their expectations concerning local government performance, compared to moderates and especially liberals. These differences were evident in their satisfaction judgments about public services based on photographic representations of service performance.

Partisan motivated reasoning can affect whether performance information influences citizens' views of how well a service is performing, how they view evidence and what measures of performance are seen as relevant to assessing performance. By implication, these factors affect whether performance information can contribute to a consensus about evidence to inform debates about public services or whether such debates are crippled by an inability to agree on even basic performance facts. However, we know little about how political motivated reasoning in general, and partisan motivated reasoning in particular, operates in the context of public services, a gap this study seeks to address.

Recently, work has begun to apply motivated reasoning concepts in public administration as part of a revival of interest in psychological theory in the field (Grimmelikhuijsen et al 2016). In particular, the a study by Baekgaard and Serritzlew (2015) looked at the relationship between the

attitudes of Danish citizens about whether public or private organizations perform best as producers of public services and their ability to correctly interpret performance information about hypothetical public or private hospitals and schools. The researchers found that prior beliefs about public versus private service provision affected whether participants made a correct interpretation of the information, which focus on hospitals and schools, with an evident tendency on the part of participants to perceive their preferred type of organization as performing better. This study clearly highlights the potential importance of motivated reasoning as a factor in citizens' processing of public performance information.

Our current study contributes to this line of investigation in public administration by focusing on partisan motivated reasoning, and importantly by using priming to activate or suppress partisan motivate reasoning. We also examine motivated reasoning about government performance in the context of health care in the US, which is a much more diverse and politically polarized nation. Priming selectively activates and increases the cognitive accessibility of some concepts above others (see Higgins, 1996, Kay and Ross 2003) and, in so doing, changes in the standards that people use to make political evaluations (Iyengar and Kinder, 1987). In our study, the political prime consists of a set of survey questions about political ideology and the role of government that aims to stimulate reasoning along party political lines. In contrast, the health care needs prime consists of a series of questions about participants' health and healthcare needs, which aim to stimulate accuracy based motivations stemming from wanting facts to inform potential use of the services. That citizens' thinking about using the services influences their reasoning is plausible because survey data suggests that citizens' direct experiences of the changes in

healthcare access and services that the reform brought about can shape their attitudes towards the Affordable Care Act (McCabe 2015).

The use of a political prime, contrasted with one designed to suppress political reasoning, thus allows us to probe the contrast between directional or accuracy motivated reasoning identified in political psychology (Taber and Lodge 2006; Lodge and Taber 2013). In our experiment, we adapt and extend the design of information processing tasks developed by Taber and Lodge (2006) and apply it to the Affordable Care Act. In their study, Taber and Lodge (2006) presented participants with advocacy arguments made by various interest groups on opposing sides of the affirmative action and gun control debates, with the express aim of bringing out directional political motivated reasoning. Taber and Lodge (2006) found motivated evaluation of arguments (disconfirmation bias) and motivated selection of information sources (confirmation bias). We use real performance information about the Affordable Care Act which measures performance on several dimensions, allowing citizens to exercise motivated reasoning both in evaluating the strength of the evidence and in choosing from a wide range of empirical indicators of the program's success or failure.

The Affordable Care Act is subject to motivated reasoning because of the disagreement between the main political parties and their partisans about the program's ends and means, with Republican politicians and supporters being much more hostile to the program than Democrats (Jacobs and Skocpol 2012; Kaiser Family Foundation 2014). These clear partisan differences lead to an expectation of motivated reasoning about evidence on the part of those identifying with different parties. The Affordable Care Act can be characterized as a position issue, with the public divided on the basic notion of government's role in the provision of universal health care. This contrasts with public services that reflect valence issues, where there is more general

agreement about the fundamental desirability of the public service (such as street cleaning, policing or public schooling) and where much performance measurement and reporting activities take place. But many important areas of government performance are in fact position issues with sharp divisions across party lines, with welfare programs in the US providing another primary example (Hetherington 2005). Research has further found that false or unsubstantiated beliefs about objective facts relevant to politics are often not adjusted when corrective information is provided in mock media stories. Instead response to corrections differ significantly according to ideological viewpoints, with a ‘backfire effect’ of strengthening misperceptions among some ideological subgroups through strong motivated reasoning (Nyhan and Reifler 2010). Thus, findings about the Affordable Care Act are relevant to a range of politically contentious public programs and services for which performance information is produced and communicated.

Motivated reasoning in the context of our experimental manipulation of primes leads us to a set of expectations about the behavior of citizens in our study. First, we expect to observe partisan differences in initial beliefs about the Affordable Care Act; and, moreover, we expect such differences to be accentuated by the political prime, in contrast to the health care needs prime. Second, we expect the political prime to influence the processing of performance information and for this this to differ by political party identification. That is, the politics prime is expected to lead Democrats to evaluate evidence and select indicators that provide a more favorable picture of the efficacy of the Act. In contrast, the political prime is expected to lead Republicans to evaluate evidence and select indicators that paint a less favorable picture of the Act. Third, under the healthcare needs prime, we expect concerns about health and the need for health care to counteract the tendency to engage in political motivated reasoning. If so, then we would expect that Democrats and Republicans should behave more similarly in their evaluation of

evidence statements and their choice of performance indicators. Finally, following Taber and Lodge (2006), we expect to observe increased attitude polarization after exposure to performance information, particularly under the political prime, because citizens will have selectively processed information to augment their prior views.

EXPERIMENTAL DESIGN AND PARTICIPANTS

To test these expectations, we designed two information tasks about the performance of the Affordable Care Act and embedded them in an experimental manipulation to either stimulate or reduce political motivated reasoning by random allocation of participants to either a political or health care prime. Figure 1 presents the layout of our experimental design. The experiment was conducted using an online survey in January 2015 to a sample of US adults (more information about the sampling and participants is provided in the next section). As Figure 1 shows, all participants first answered screening questions (to verify US residence) and practiced with a heat map, a format in which respondents click on points of interest in a picture or other graphical image on the screen, to familiarize themselves with how to perform the task. Survey experiments with general populations are designed to be relevant to these contexts and, in contrast to a laboratory study with student participants, enhance the external validity of the findings (Blom-Hansen, Morton & Serritzlew 2015).

[Figure 1 about here]

We then presented the participants with one of the two primes, the political prime or the health care needs prime, with allocation randomized across participants. In the *political prime*, people were first asked to situate themselves on a 1 to 10 left-right scale of political views (ideology). This was followed by a series of forced choice questions on the proper role of government taken

from a Pew (2014) poll about political polarization in the US. The questions asked respondents to choose between one statement from each of the following pairs that best represents how they see things: *government often does a better job than people give it credit for (or government is almost always wasteful and inefficient)*; *government regulation of business is necessary to protect the public interest (or government regulation of business usually does more harm than good)*; and *poor people have hard lives because government benefits don't go far enough to help them live decently (or poor people today have it easy because they can get government benefits without doing anything in return)*. The alternatives shown in parentheses clearly represent views opposed to a larger role for government in society and the economy, in contrast to the other statements that are more favorable toward an activist role for government. Again, the aim of these political priming questions was to activate associations related to political ideology and the role of government, thus priming people to view the Affordable Care Act in more party political terms.

In the *health care needs prime*, respondents were asked a series of questions from a Kaiser Family Foundation / NBC News (2013) poll about people's concerns about access to and affordability of health care, including *having to pay more for health care or health insurance*, *not being able to afford needed health services*, *not being able to afford needed prescription drugs*, *being locked in a job for fear of losing health benefits*, and *the general fear of losing health insurance coverage*. Participants were also asked to rate their own health, on a five-point scale from *poor to excellent*. The aim of these health care priming questions was to activate associations related to personal concerns about health and the need for health care, thus priming people to pursue accuracy goals related to this vital public service and, in turn, suppressing political motivated reasoning.

After randomly receiving either the healthcare needs prime or the political prime, participants in both experiments were asked about their beliefs regarding the Affordable Care Act. Specifically, they were instructed as follows:

The Affordable Care Act (also known as Obamacare) became law in 2010. Based on what you have read or heard, please rate your agreement with the following statements.

Because of the Affordable Care Act, the American people now have . . .

- *more access to healthcare*
- *better quality healthcare*
- *less expensive healthcare*
- *better health*

Responses were indicated on a 0 to 100 horizontal sliding scale, where 0=completely disagree and 100=completely agree. We refer to these as T1 beliefs, and they were assessed prior to the strength of evidence statements task (Task 1) or the choice of indicators from the chart task (Task 2). Following the method used by Taber and Lodge (2006), this measurement of T1 attitudes allows us to assess change in attitudes in a comparison with a later measurement (T2), using the same questions after exposure to the new information in the course of completing the tasks. Participants were not aware of the existence of the primes or tasks beyond those that they were randomly allocated, and only undertook one task each, in order to reduce any risk that they might become aware of the research question under investigation.

Task 1: Assessing the strength of evidence about performance

Task 1 involved presenting respondents with four factual statements, based on real data from a scorecard of state health system performance included in a report published by the non-partisan Commonwealth Fund (Radley et al., 2014). The Fund's health systems scorecard has, at a time subsequent to our experiment, been made available as a user-friendly interactive web-based data tool, Health Systems Data Center (at <http://datacenter.commonwealthfund.org>), which provides much of the same indicator information we included in our experiment. We selected two favorable and two unfavorable indicators of the performance of the Affordable Care Act from this scorecard. Specifically, we gave participants in task 1 these instructions:

The following evidence is about changes in health care access and affordability, as well as changes in prevention and treatment, at the outset of the Affordable Care Act. These are real facts from a 2014 report by a respected, independent health policy research organization. Please indicate the extent to which you think each of these facts is strong, or weak, evidence about the performance of the Affordable Care Act.

- *Adults who went without health care because of cost improved in only 9 states, but worsened in 41 states. [Unfavorable]*
- *Children ages 19–35 months with all recommended vaccines improved in all 50 states. [Favorable]*
- *Older adults with recommended preventative care improved in only 7 states, but worsened in 30 states (and remained the same in the rest of the states). [Unfavorable]*
- *Patient-centered hospital care improved in 48 states and worsened in only 1 state (and remained the same in the rest of the states). [Favorable]*

The facts from the Commonwealth Fund are baseline statistics as their timing reflects the five-year period from 2007-2012. The Affordable Care Act was passed in 2010 with some of its provisions implemented immediately (for example adult dependent coverage until age 26); the expansion of Medicaid, state health exchanges and the individual mandate did not go into effect until 2014. For this reason, we describe this evidence as representing health system performance “at the outset of the Affordable Care Act”. Thus, the timing of our study meant that we did not present information on the actual impacts of the main provisions of the Act, which likely will also emerge in the longer term, but instead were able to use the health system indicators to present a mixed picture of favorable and unfavorable outcomes from the Act.

Following each statement, participants were asked to rate the strength of the evidence on a 0-10 scale, from *0=very weak evidence* to *10=very strong evidence*. This task gauges disconfirmation bias to the extent that participants rate evidence in line with partisan position as strong, and evidence contradicting their partisan support as weak. Following this evidence rating task, participants were asked to give their T2 beliefs using the exact same four items and agree-disagree response format as for the T1 beliefs, as described earlier. Again, following the paradigm of Taber and Lodge (2006), this allows for the direct measurement of attitude change.

Task 2: Choice of performance indicators

Task 2 involved a different kind of activity, namely viewing a chart from the Commonwealth Fund report (Radley et al 2014) in which a variety of indicators of state health system performance at the outset of the Affordable Care Act were displayed. Similar charts are also now available separately from the Commonwealth Fund’s website as user-friendly infographics for use by the public. As Figure 2 shows, the bars in the chart depict the number of states that

had improved, worsened, or stayed the same for the health system indicators, with examples including *children 0-18 uninsured* and *adults who went without care because of costs in the last year*. As can be seen, this chart includes most of the same facts that appear in the evidence statements in Task 1. Thus, the performance information is very similar in type but, in Task 2, the presentation was graphical (not written), many more indicators were presented, and respondents had to click on “the most useful indicators of the performance of the Affordable Care Act” (with up to three clicks allowed by the software). This searching and clicking task provides a gauge of information processing and in turn confirmation bias, to the extent participants selected indicators that support their partisan identification and T1 attitudes toward the Affordable Care Act. It should be noted again that this chart shows state health system performance at the outset of the Affordable Care Act. As a result, the effects of the major provisions of the new law had not yet fully emerged, and indeed the indicators provide a mixed picture, particularly with respect to insurance coverage and health care costs. This is a disadvantage in terms of realism but importantly meant that participants faced a wide array of positive and negative indicators of the program’s performance. After viewing and selecting indicators, participants were then asked a second time about their (T2) beliefs regarding the Affordable Care Act.

[Figure 2 about here]

Participants

Participants were adult respondents to an emailed study invitation sent to individuals in the CivicPanel project, a university-affiliated internet research panel (see CivicPanel.org).

CivicPanel recruits on an ongoing basis using web directory listings, social media, Craigslist, and

Google ads and includes panelists of various ages and income levels from all parts of US as well as other countries. A total of 8,754 CivicPanel members were sent an email invitation, of which 2,034 were confirmed to have opened the email invitation and 744 responded after two contact attempts (representing a 23 percent contact rate and a 37 percent cooperation rate). We dropped 30 non-US respondents (because of the focus on US health care policy), 24 respondents who completed the survey in under 1 minute (because they sped through the questions and thus likely did not consider the information presented to them), and 29 partial respondents (who did not fully complete the experimental part of the survey), leaving an analytical sample of 661 eligible, substantially completed responses. Item nonresponse resulted in slightly smaller samples in some of the analyses, depending on the variables involved, as reported in the analysis section. Participants were predominately non-Hispanic white (81%) and disproportionately female (67%), with a mean years of age of 43.1 (SD=12.1), a mean years of education of 14.7 (SD=2.2), and a mean income of \$78,718 (SD=\$60,541). In terms of political ideology, they are fairly balanced on a 1-10 left-right scale, with a mean of 5.5 (SD=2.4). Appendix 1 provides the statistics for the sample overall and across experimental factors, as well as comparison of the sample with the American Community Survey (ACS) for demographic characteristics and the World Values Survey (WVS) for political ideology, providing a sense of how representative the sample is of the US population.

As discussed earlier, because of the controversial political nature of the Affordable Care Act, we expected our experimentally varied primes to have differential effects on Democrats and Republicans in the study. Thus, we classified participants as either Democrats or Republicans based on their self-identification as well as how they voted in the last US presidential election (between Barack Obama and Mitt Romney) using standard questions asked by Pew (2014). For

the analytical sample, 61% can be classified as Democrats (or Democrat-leaning) and 39% are Republicans (or Republican-leaning). The Democrats are more likely to live in the northeast (37% vs 27%), and Republicans are more likely to live in the south (34% vs 25%). Democrats are twice as likely to be non-white (24% vs 12%), and Republicans are more likely to be 50 years of age or older (54% vs 45%). Democrats are also more likely to be college educated (54% vs 40%). These demographic differences mirror the party profiles observed in other, nationwide studies (Pew 2014).

ANALYSIS AND RESULTS

Our analytical approach will proceed as follows. First, we will compare the effect of the experimentally manipulated politics and health care primes on pre-task (T1) attitudes toward the Affordable Care Act. Second, we examine how the experimental primes influence the processing of performance information for both the evaluation of evidence statements (Task 1) and the selection of performance indicators from a chart (Task 2). Lastly, we will look at the polarization of attitudes toward the Affordable Care Act after exposure to performance information.

Importantly, in all analyses, we look at the interaction of political party identification and the experimental treatment (the primes).

T1 beliefs about the Affordable Care Act

We begin with an initial analysis of the effects of the politics and health care primes on the pre-task T1 beliefs about the Affordable Care Act, using a scale of T1 beliefs (4 items, $\alpha=.94$).¹

Because T1 beliefs were measured after random allocation to primes (politics and health care)

¹ A principal components factor analysis confirms that the T1 and T2 beliefs both have a single dimension, the Eigenvalue of the first factor for T1 is 3.38 and a second factor is 0.29, for T2 the first factor is 3.48 and a second factor is 0.23.

but prior to random allocation to tasks (evidence statements and indicator chart), we combine participants in this analysis. As Figure 3 shows, there is a clear difference in beliefs by party identification, before participants engaged in either the evidence strength rating or indicator chart tasks. Democrats expressed much more favorable beliefs about the Affordable Care Act than Republicans, with a gap of over 30 points between these groups in both the politics and health care primes, which is highly significant in both conditions (see Appendix 2, Table A). However, we did not find evidence of an experimental effect of the politics prime, versus the health care prime, on the size of the gap in T1 beliefs about the Affordable Care Act between Democrats and Republicans. Overall, these results suggest that priming citizens to think politically, in contrast to priming them to think about their own health care needs, did not substantially alter their beliefs about the Affordable Care Act prior to exposure to performance information about the program.

[Figure 3 about here]

Processing performance information: Task 1

We next examine the processing of performance information in Task 1, which involved the evaluation of the strength of four evidence statements about the Affordable Care Act taken from the Commonwealth Fund report. Two separate composite scores were created to measure citizens' evaluation of these evidence statements because a factor analysis of the four items suggested that the pro and con evidence statements constituted distinct dimensions.² Thus, the analysis separately examined ratings of pro-Affordable Care Act evidence statements ($\alpha=.83$) and ratings of con-Affordable Care Act evidence statements ($\alpha = .89$). It should

² A principal components factor analysis of the four items resulted in an Eigenvalue of 1.91 for the first factor and 1.60 for the second factor, and a scale in which all four items combined exhibited low internal consistency ($\alpha = .49$).

be noted that these summated scores are not designed to be scales of general attitudes toward the Affordable Care Act. Instead we presented the evidence statements to participants and measured the degree to which they viewed the statements as strong or weak evidence.

As Figure 4a shows, compared to the health care prime, the politics prime appears to widen partisan differences in the evaluation of evidence statements that report good results for the Affordable Care Act (pro statements). That is, when primed to think politically, Democrats evaluate pro statements as somewhat stronger evidence and, in contrast, Republicans evaluate pro statements as weaker evidence, an interaction effect that is statistically significant ($p < .05$, see Appendix 2, Table B). Alternatively, priming participants to think about their own health and health care needs narrows the gap between Democrats and Republicans in how they evaluate evidence statements that report good performance for the Affordable Care Act. This finding suggest accuracy goals are more at work in the health care primed group, rather than directional partisan goals. However, as Figure 4b shows, this result is not apparent for the evidence statements suggesting more negative performance (con statements). In this case neither the priming effect nor the interaction effects are significant statistically. Thus, motivated reasoning is evident only for the pro the Affordable Care Act evidence, especially in Republicans' lower rating of this evidence strength under the politics prime.

[Figure 4 about here]

Processing performance information: Task 2

In Task 2, as explained earlier, participants used a heatmap technique to select state-level health system performance indicators they considered to be most important from an actual chart taken from the Commonwealth Fund report (see Figure 2), with the software allowing up to three

choices and recording the exact position of their clicks on the chart. For each indicator chosen by a participant, we added the number of improved states and subtracted the number of worsened states as a gauge of the overall direction of the evidence selected from the indicator chart. Scores on this index ranged from a low of -73 to a high of +147 (with a mean = 18.1, and SD = 41.7), with negative scores indicating a preponderance of “worsened” states included in the selected indicators and a positive score indicating a preponderance of “improved” states (again, see Figure 2 for reference).

As Figure 5 shows, in the group primed to think about health care needs, the net score of the selection of state-level indicators by Republicans (improved states minus worsened states) was fairly similar to the net score of Democrats. But in the group primed to think politically, the choice of indicators results in a very large partisan gap in the performance information considered important, with Democrats selecting indicators that give the Affordable Care Act a nearly 30-state advantage over the indicators selected by Republicans. This interaction effect is highly significant statistically (see Appendix 2, Table C) and substantively large. To test the robustness of this finding, we re-ran the analysis using an alternative measure of the outcome composed of a basic count of favorable (pro) minus unfavorable (con) state-level health system indicators, which does not weight the indicators (as it were) by the actual number of states improved or worsened. To save space, the graph is not shown but the regression appears in Appendix 2 (Table C) and shows that the interaction remains large and even more statistically significant. Thus, the finding of a partisan directional choice of performance information is robust to this alternative measure.

[Figure 5 about here]

Polarization of beliefs

Our final analysis examines the extent to which the exposure to and processing of performance information leads to more or less polarization in beliefs about the Affordable Care Act. It should be noted that this analysis is largely correlational, rather than experimental, and follows the analytical approach of Taber and Lodge (2006); namely, we regressed centered T2 beliefs on centered T1 beliefs, then tested the coefficient against a null hypothesis of 1. In this procedure, if T2 beliefs become more polarized after the evidence statements or indicator chart, the coefficient will be greater than 1; if T2 beliefs become less polarized, the coefficient will be less than 1. In their study, Taber and Lodge (2006) generally found coefficients significantly greater than 1, indicating polarization, especially for those who were politically sophisticated and who had stronger prior beliefs. We assess the interaction of the politics and health care prime treatments and T1 beliefs to gauge if priming people to think politically (in contrast to their health care needs) increases polarization of beliefs about the Affordable Care Act.

[Table 1 about here]

Table 1 presents the regressions for the full sample as well as separately by party identification. Looking first at the full sample and the simple regression of T2 beliefs on T1 beliefs, which is the first regression shown, our results suggest a decline—not an increase—in polarization following exposure to and processing of performance information. This contrasts with our expectation and with the general findings of Taber and Lodge (2006). In the second regression, which includes our experimental manipulation, the insignificant interaction term indicates that priming participants to think politically had no effect on polarization of beliefs. Regressions 3 to 6 in Table 1 show the simple and interaction models separately for both Democrats and

Republicans. For both groups, the coefficient on T1 is again significantly less than 1, indicating a reduction in polarization of beliefs after exposure to performance information. This decrease in polarization is somewhat larger for Democrats, suggesting that performance information about the Affordable Care Act moderated their beliefs more than it did for Republicans. But for both groups priming participants to think politically (in contrast to their health care needs) had no effect on polarization.

DISCUSSION AND IMPLICATIONS

Our findings suggest that the information-deficit assumption behind much of the movement for public performance reporting is inadequate, at least for public service programs with substantial disputes along party political lines. This is because citizens engage in motivated reasoning about performance reports informed by their partisan identification, as work in political science has found in other areas (Slothuus and de Vreese 2010; Petersen et al 2013). Our study also finds that directional motivated reasoning is stimulated when citizens are primed to think politically, but that accuracy goals prevail when citizens are primed to think about their own healthcare needs. Specifically, the political prime widened the gap between Republicans' and Democrats' judgements of the strength of pro evidence favorable to the Affordable Care Act, with Republicans rating it as less strong. And Republicans' choice of less favorable performance indicators from a graphical array, relative to those chosen by Democrats, was also intensified under the political prime. However, the effect of the political prime did not result in partisan differences in rating the strength of evidence of unfavorable statements about the Act. Thus, motivated reasoning by Republicans seems primarily related to their being relatively unwilling to view favorable evidence about the Act as having much probative value.

Thus, our evidence suggests that providing people with balanced, impartial performance information does not generate a consensus on evidence to inform the accountability of services where there is a split on partisan lines. The problem, in these terms, contributes to a less rationalistic interpretation of performance measures and their reception and use consistent with work questioning the rationality of the performance movement (Moynihan 2008; Van de Walle, Steven and Alasdair Roberts 2011; Andersen and Hjortskov 2015). Our findings are also consistent with recent research that has found evidence of motivated reasoning about performance information (Baekgaard and Serritzlew 2015) but demonstrates the importance of partisan conflict as a source of such reasoning.

The increased motivated reasoning under the political prime shows that there is likely to be a greater lack of consensus about evidence in contexts that are politically charged compared to those where people reflect on their need for the service. This finding sheds light on previous research on performance information in healthcare. Gormley (1998) concluded his study of report cards on hospitals and health management organizations by saying that whilst report cards had not solved the problem of information asymmetries between producers and consumers they had the potential to do so. Our findings suggest that this may be the case, in terms of facilitating individual consumer choice. However, where reports are to inform public accountability of a service then partisan motivated reasoning means that even well designed, apparently highly informative reports will not be received as correcting an information deficit. The Affordable Care Act debate has been characterized by fierce public debates in the media, court challenges, protests, and strong opposing positions taken by leading figures in the two main parties. The findings are consistent with research about media reporting of healthcare reform which found that misperceptions about proposed Affordable Care Act reforms were not corrected among

individuals with the motivation to reject corrective information (Nyhan, Reifler and Ubel 2013). Many public services are similarly politically charged, notably debates about welfare, immigration enforcement, environmental protection, and criminal justice (Hetherington 2005) and our findings are relevant to those domains. Services with greater consensus about their desirability and lower partisan conflict, for example routine services such as local street maintenance or refuse collection, are likely to be subject to less party political motivated reasoning. The reception of performance information in these contests is likely to be more consistent with accuracy oriented, needs based, reasoning.

To the extent that service performance can be taken out of the realm of partisan conflict, the degree of partisan motivated reasoning will be reduced, our study suggests. When we gave citizens a prime about their own health care needs, accuracy goals appear to have somewhat displaced partisan motivated reasoning. And even in the context of partisan motivated reasoning, our analysis of polarization suggests that the presentation of performance information did not exacerbate, and possibly even slightly reduced, polarization of beliefs about the Affordable Care Act. Although it is likely to be difficult to reduce partisan conflict, there may be potential from cross-party commissions and independent expert reviews with bi-partisan support to validate performance measures. There is reason to think that these structures might be effective. Evidence from experiments shows that citizens see information about government agencies' high performance as being more credible when it comes from an independent non-governmental source than when it comes from the agencies themselves (James and Van Ryzin 2015). Analyzing institutional forms that can overcome partisan bias are a valuable avenue for future experimental investigation and offer hope of overcoming selective reception of performance

information, facilitating more reasoned debate about public services and, in turn, more effective democratic accountability.

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Table 1. Regressions analysis of T2 attitudes (polarization)

T2 attitudes	Full sample		Democrats		Republicans	
	(1)	(2)	(3)	(4)	(5)	(6)
T1 attitudes	0.924 *** (0.015)	0.926 *** (0.022)	0.889 *** (0.024)	0.895 *** (0.032)	0.926 *** (0.028)	0.916 * (0.044)
Political prime		-0.507 (0.893)		-0.612 (1.343)		0.278 (1.732)
T1 attitudes * Political prime		-0.005 (0.031)		-0.015 (0.048)		0.016 (0.057)
Constant	-0.226 (0.445)	0.019 (0.628)	0.795 (0.670)	1.091 (0.933)	-1.004 (0.862)	-1.152 (1.229)
Observations	617	617	373	373	239	239
R-squared	0.8566	0.8567	0.7899	0.7903	0.8233	0.8233

Note: T1 and T2 scales are centered; table shows unstandardized coefficients; standard errors in parentheses; significance tests on T1 attitudes based on null = 1 (following Taber and Lodge 2006).

*** p<0.01, ** p<0.05, * p<0.1

Appendix 1 Characteristics of sample (percentages)

	ACS and WVS (*)	Total sample (n=661)	Experiment 1 (Evidence Statements)		Experiment 2 (Indicator Chart)	
			Health prime (n=172)	Politics prime (n=156)	Health prime (n=167)	Politics prime (n=166)
Northeast	17.7	32.8	34.9	30.8	36.5	30.1
Midwest	21.3	17.8	16.9	21.2	18.0	14.5
South	23.5	28.6	27.3	28.2	25.2	31.9
West	37.6	20.9	20.9	19.9	20.4	23.5
Male	49.2	32.7	35.8	30.3	33.3	31.1
Female	50.8	67.3	64.2	69.7	66.7	68.9
White, non-Hispanic	73.7	81.0	83.8	74.7	78.8	86.2
Other	26.3	19.0	16.2	25.3	21.2	13.8
18-29 years old	21.9	7.6	9.0	6.7	8.6	5.9
30-49 years old	34.8	43.9	47.0	40.9	37.5	50.0
50 and older	43.3	48.5	44.0	52.4	54.0	44.1
Less than \$25,000	16.4	16.9	21.3	14.0	18.4	13.3
\$25,000-\$74,999	41.2	50.1	45.1	48.7	46.7	60.3
\$75,000 or more	42.5	33.1	33.5	37.3	34.9	26.5
Less than BA degree	71.2	51.4	55.4	52.7	47.3	49.7
BA degree or higher	28.8	48.6	44.6	47.3	52.7	50.3
*Left (1-4)	18.7	29.1	26.0	25.0	30.9	34.8
*Center (5)	34.6	28.3	30.8	26.3	28.3	26.2
*Right (6-10)	46.6	42.6	43.2	48.7	40.8	39.0

Note: The first column presents statistics (percentages) from the American Community Survey (factfinder.census.gov) and the World Values Survey (worldvaluessurvey.org), accessed June 2015. Bolded numbers indicate statistically significant differences at $p < .05$.

Appendix 2. Regressions and related significance tests for Figures 3, 4 and 5

Table A. Regressions for Figure 3

	T1 beliefs
Political prime	-1.48 (-0.59)
Party identification (Republican)	-30.90*** (-10.89)
Pol prime* party id	-1.69 (-0.42)
Constant	67.50*** (38.87)
Observations	616
R-squared	0.289

Note: Table shows unstandardized coefficients; t-statistics in parentheses;

*** p<0.01, ** p<0.05, * p<0.1

Table B. Regressions for Figure 4

	(1) Pro evidence statements (Figure 4a)	(2) Con evidence statements (Figure 4b)
Political prime	0.20 (0.59)	0.39 (1.02)
Party identification (Republican)	-1.30*** (-3.45)	1.09*** (2.62)
Pol prime*party id	-1.18** (-2.18)	-0.40 (-0.65)
Constant	6.87*** (29.21)	5.45*** (20.63)
Observations	307	302
R-squared	0.150	0.032

Note: Table shows unstandardized coefficients; t-statistics in parentheses;

*** p<0.01, ** p<0.05, * p<0.1

Table C. Regression for Figure 5 (improved minus worsened states) and also an alternative regression using another measure of the dependent variable (count of pro indicators minus con indicators)

	(1) Improved minus worsened states (Figure 5)	(2) Pro minus con indicators
Political prime	12.65** (2.04)	0.36* (1.91)
Party identification	-3.57 (-0.50)	-0.08 (-0.37)
Pol prime*party id	-23.51** (-2.35)	-0.75** (-2.46)
Constant	19.64*** (4.57)	0.23* (1.73)
Observations	304	304
R-squared	0.050	0.049

Note: Table shows unstandardized coefficients; t-statistics in parentheses;

*** p<0.01, ** p<0.05, * p<0.1

Figure 1. Experimental design

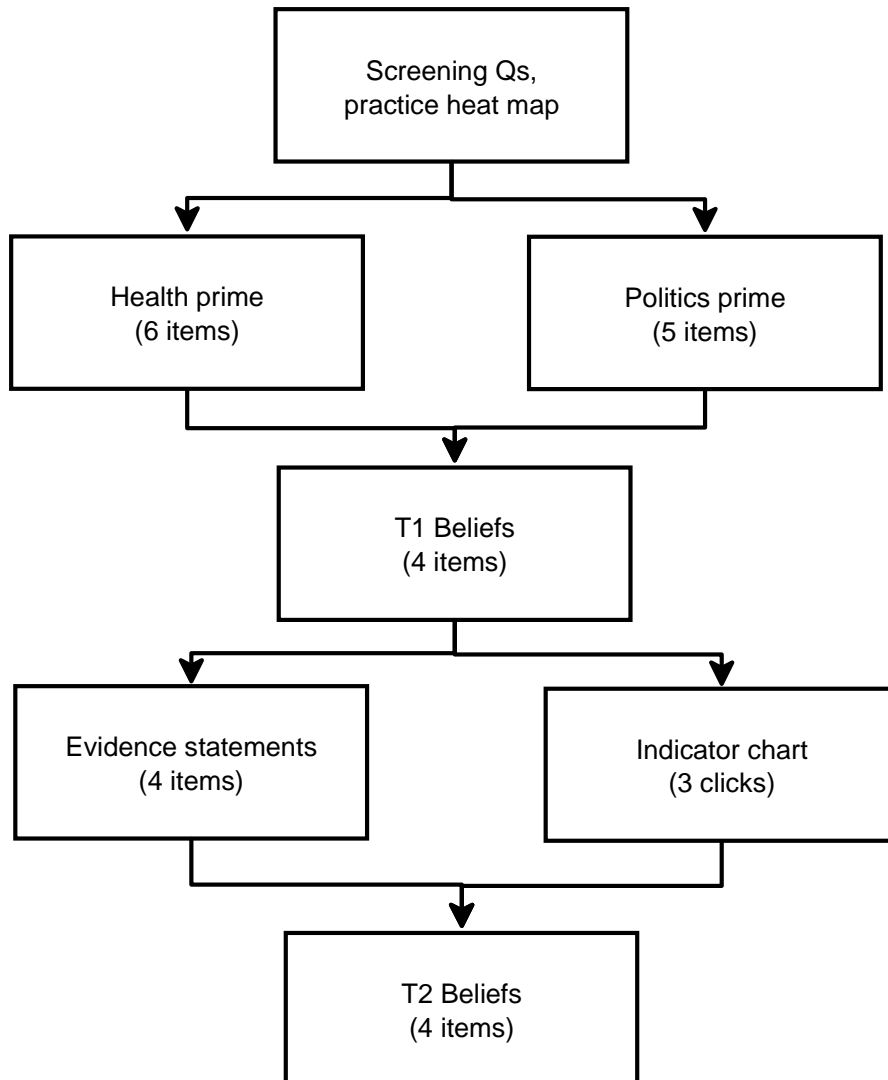
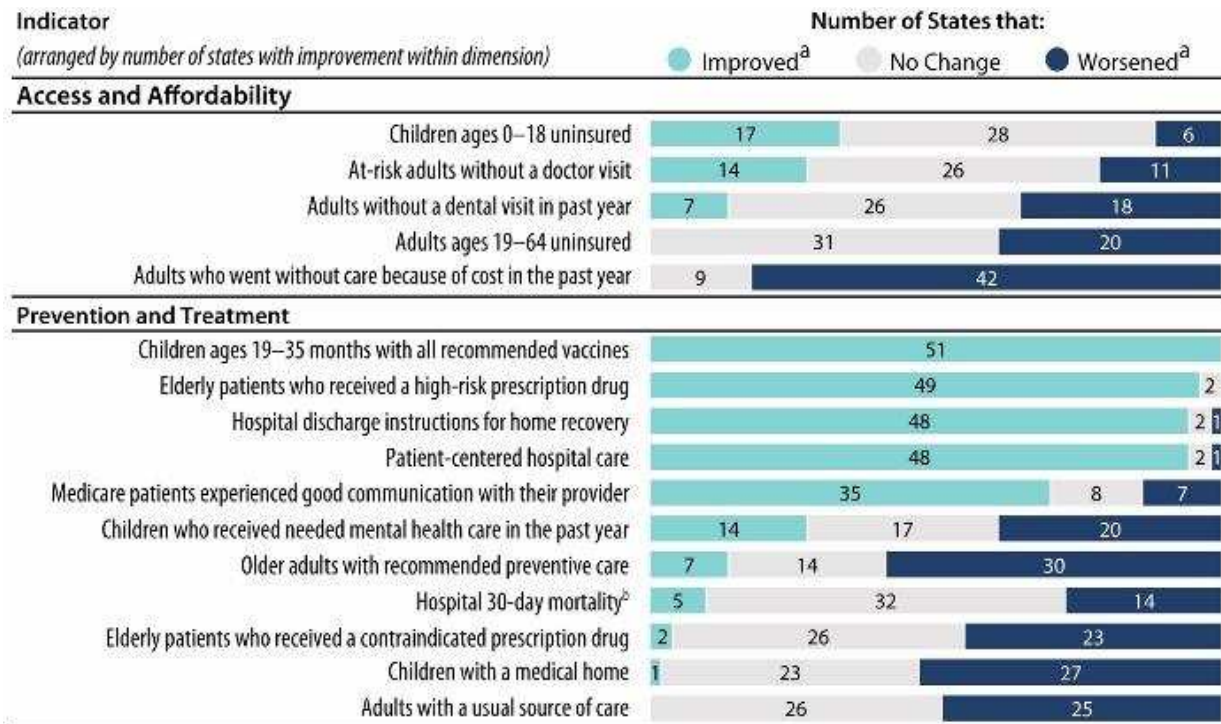
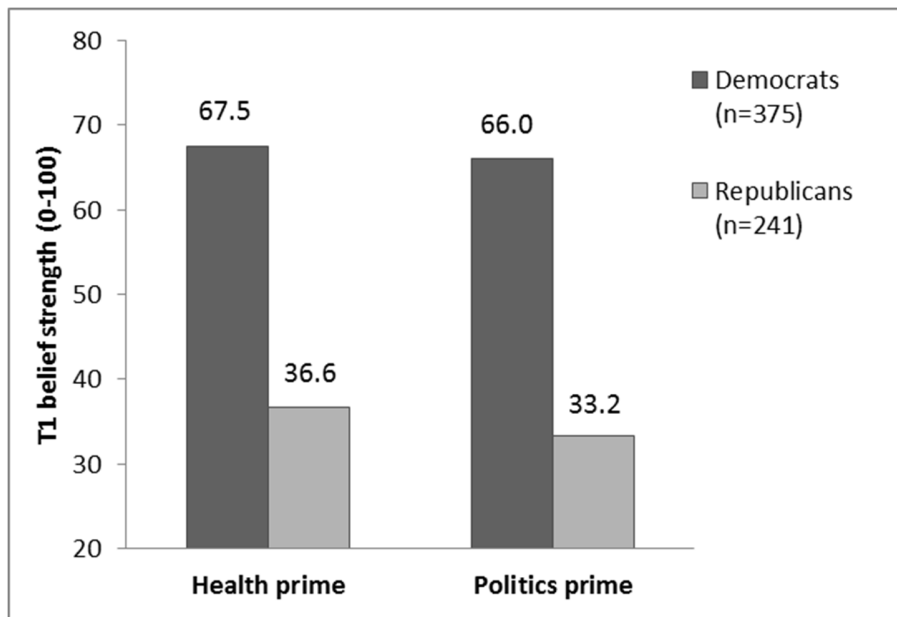


Figure 2. Chart of state health system indicators



Note: Chart as shown to participants, adapted from the Commonwealth Fund report by Radley et al (2014).

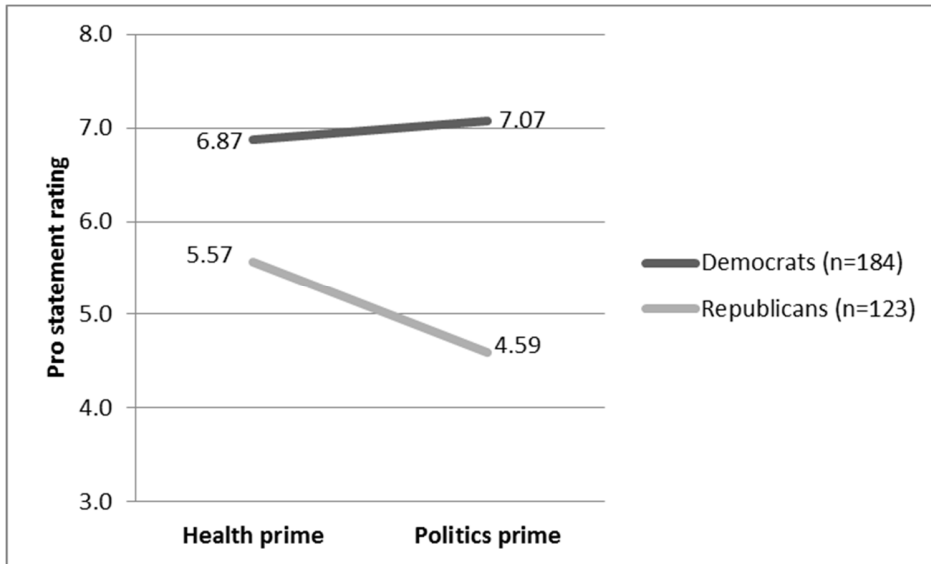
Figure 3. Mean levels of beliefs about performance by prime and party identification



Note: Only difference in levels between Democrats and Republicans is significant ($p < .01$).

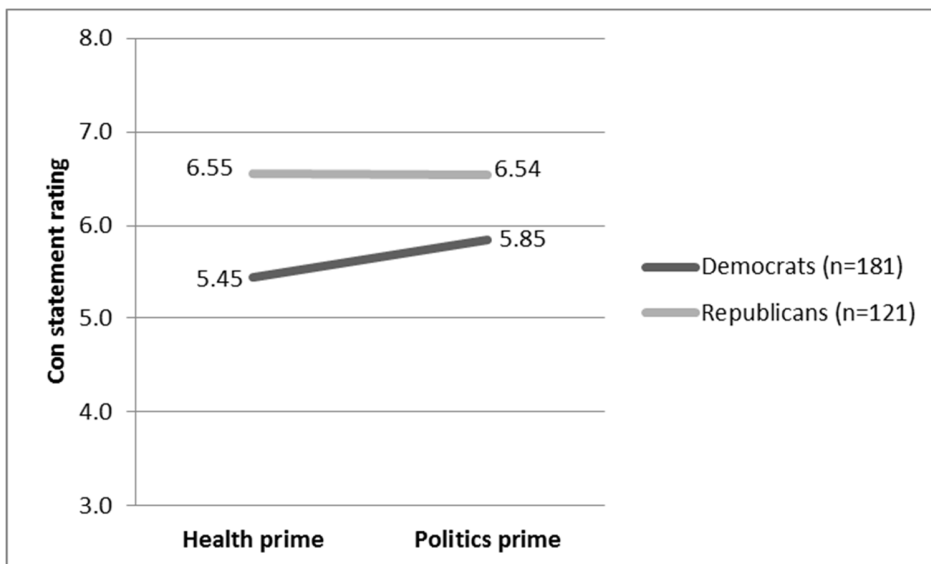
Figure 4. Interaction analysis of Task 1—Mean Democrats and Republicans’ ratings of pro and con evidence statements in each prime treatment group

a. Pro evidence statements



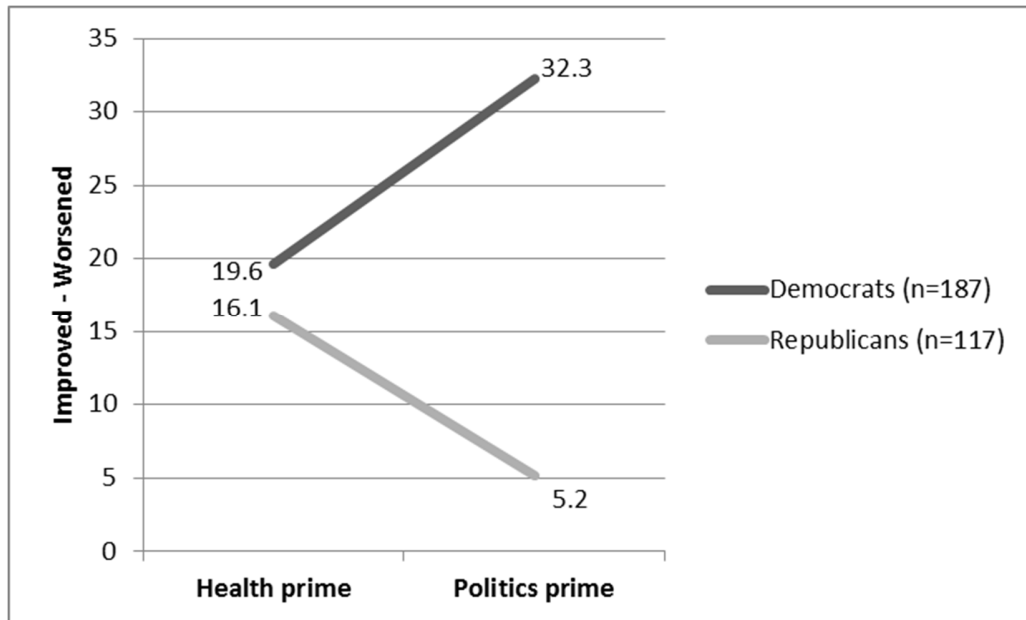
Note: Difference in levels between Democrats and Republicans is significant ($p < .001$), and the interaction between treatment group (prime) and party identification is also significant ($p < .05$).

b. Con evidence statements



Note: Only difference in levels between Democrats and Republicans is significant ($p < .01$).

Figure 5. Interaction analysis of Task 2 indicator chart selection: Democrats and Republicans' choice of indicators (number of improved minus worsened states) in each prime treatment group



Note: Difference in levels between Democrats and Republicans is significant ($p < .01$), and the interaction between treatment group (prime) and party identification is also significant ($p = .02$).