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Is ideology the enemy of inquiry? Examining the link between political orientation and lack of interest in novel data

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ABSTRACT

Four studies examined the relationship between political orientation and data selection. In each study participants were given the opportunity to select data from a large data set addressing a specific issue: the justness of the world (Pilot Study), the efficacy of social safety nets (Studies 1–3), and the benefits of social media (Study 3). Participants were given no knowledge of what the data would tell them in advance. More conservative participants selected less data, and in Study 3 this relationship was partly accounted for by an increased tendency to question the value of science as a way of learning about the world. These findings may reveal one factor contributing to political polarization: an asymmetrical interest in scientific data.

1. Introduction

"Closed-minded" is a common slight in the realm of political debate. Conservatives complain of "knee-jerk liberalism" while liberals bemoan the rigidity of conservatism. In the United States political partisanship appears to be increasing, raising concerns about how societal progress is to be made if both parties simply ignore information that might challenge their views (Pew Research Center, 2014; Stroud, 2010). This raises the question: are both ends of the political continuum equally closed-minded when it comes to new information? On the one hand, a defining feature of political conservatism is a resistance to change (Jost, Glaser, Kruglanski, & Sulloway, 2003). As a consequence, conservatives might be less likely than liberals to entertain ideas or information that could contradict their current views. On the other hand, liberals might be closed-minded to the benefits of the status quo in much the same way conservatives are accused of being resistant to change.

Previous investigations have examined how various forms of disinterest in information are related to political orientation (e.g., Iyengar, Hahn, Krosnick, & Walker, 2008; Knobloch-Westerwick & Meng, 2009; Lavine, Lodge, & Freitas, 2005). In these studies, the disinterest exhibited by participants is thought to reflect their desire to protect their existing views. Participants are asked to select from information that clearly supports or challenges their views. One question that remains unanswered, then, is: How is political orientation related to disinterest in novel information that may support or may challenge an existing view (i.e., empirical data) on political issues?

Here, we created a simple paradigm designed to present people with an opportunity to view new "raw" data, free from the potential bias that could be imposed by journalists and reporters. Imagine a massive data set that could help provide a rather definitive answer to a politically relevant question (e.g., "Is the world a just place?" or "Are social safety nets beneficial?"). How much of this massive data set would you want summarized for you? Clearly, if you *really* want to know the answer, you would request all of it (or a lot of it). In the present research, we address whether the amount of data selected for viewing is contingent on one's political orientation; in this way, we address whether political orientation is associated with truly wanting an answer to issues that are important to both liberals and conservatives.

1.1. Selective interest in information

Considerable evidence suggests that, although people are curious about the world, this curiosity manifests itself in selective ways (Hart et al., 2009; Kunda, 1990; Sweeny, Melnyk, Miller, & Shepperd, 2010). People do not appear to indiscriminately seek out new information; instead there are multiple ways in which

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people limit the amount of information to which they attend. Some of these processes reflect a "confirmation bias" – a desire to reaffirm one's current views. For instance, people often avoid information that will challenge their existing beliefs, as when people ignore news outlets that contradict their worldview (Frey, 1986; Hart et al., 2009; Jonas, Schulz-Hardt, Frey, & Thelen, 2001; Ross, Lepper, & Ward, 2010). In contrast, there appear to be other times when people avoid information even before they know what it will tell them, as when people would rather not know the result of a medical test or their definitive score on a measure of intelligence (Sweeny et al., 2010). Here, we were interested in exploring this latter form of disinterest as it relates to political orientation.

1.2. Political orientation and information exposure

Some researchers have suggested that people with extreme political views (i.e., very liberal views or very conservative views) might be less interested in new information than people with more moderate political views (Brannon, Tagler, & Eagly, 2007). Theoretically, people with extreme views may be more motivated to defend them, and thus more threatened by new information (especially if it is contradictory). Other researchers, however, have proposed that there is something about a *conservative* orientation, specifically, that predisposes people to be disinterested in new information. There is evidence that people who are politically conservative are especially prone to motivated cognition, which can lead to the avoidance of information (Hart et al., 2009; Jost et al., 2003). In their comprehensive meta-analysis, Jost et al. (2003) propose that there are core aspects of conservatism – resistance to change and acceptance of inequality – that foster a reluctance to consider alternative viewpoints. Supporting this view, previous findings have demonstrated associations between conservatism and dogmatism (Rokeach, 1960), need for closure (Golec, 2001; Jost, Kruglanski, & Simon, 1999), and reduced openness to experience (Peterson, Smirles, & Wentworth, 1997).

Most of the previous studies that have directly examined these two possibilities have focused on confirmation bias. Indeed, there is evidence that people with extreme views (Brannon et al., 2007; Brock & Balloun, 1967; Knobloch-Westerwick & Meng, 2009; cf., Taber & Lodge, 2006) and people with conservative views (Iyengar et al., 2008; Lavine et al., 2005; cf., Knobloch-Westerwick & Meng, 2009) show greater confirmation bias, reflecting a disinterest in information that contradicts their existing views. It remains unclear, however, whether these findings extend to interest in new, unbiased information. Perhaps when people view information as coming from an objective source, people show comparable curiosity across the political spectrum.

Shook and Fazio's (2009) examination of political orientation and attitude formation provides preliminary evidence, outside of a confirmation bias paradigm, that conservatives may be more disinterested in new information than liberals. In this experiment, participants played a game, called Beanfest, in which they could learn by sampling novel stimuli ("beans") that produced positive or negative outcomes. They found that more conservative participants chose to sample fewer beans, thus limiting their exposure to information. This finding provides some evidence that conservatives might be less interested in new information than liberals, even in situations where confirmation bias does not play a role. In this study, however, sampling beans also involves risking a loss of points, and thus decreased sampling may reflect greater risk aversion amongst conservatives rather than decreased interest in information (Hibbing, Smith, & Alford, 2014). Thus, it is unclear whether this finding would extend to situations in which there is effectively zero cost to learning new information.

2. The current investigation

In the current investigation our goal was to extend our existing understanding of the relationship between political orientation and disinterest in new information. Previous work has tended to focus on how people gather information that clearly supports or challenges an expressed view, and has thus been helpful in revealing how people of different political orientations seek information from their allies and opponents. Nevertheless, it remains unclear how political orientation would relate to disinterest in new information of unknown content – that is, content that could be supportive or challenging. We believe answering this question provides novel insight into the debate about whether political orientation relates to really wanting to know objective reality (vs. one's own version of reality). We attempted to examine this issue directly by presenting people with new information in the form of raw data and allowing them to indicate how much of the data they wanted us to summarize for them. In this way we hoped to examine how political orientation might be associated with truly wanting to understand a political issue.

3. Method – pilot

In our first attempt to address the relationship between political orientation and interest in novel data we turned to data that had been collected as part of two experimental studies. In the first study we originally attempted to manipulate support for just world beliefs, and the second we attempted to manipulate perceptions of the comprehensibility of the world. Our main dependent variable in both studies was a data selection task designed to assess the amount of empirical data participants were interested in viewing. Because both studies included measures of political orientation, we were able to combine these data into a Pilot Study examining the association between political orientation and data selection. Here we focus specifically on this relationship and do not discuss the manipulations further (but see Supplementary Materials for further details about the manipulations and their effects on the dependent variables of interest).

The data selection task in these studies assessed people's interest in learning about new data on the justness of the world. We expected that just world beliefs would be politically divisive (with conservatives holding a stronger belief in a just world; e.g., Jost et al., 2003; Sidanius & Pratto, 2001) but that both liberals and conservatives would view this issue as important. To decrease the likelihood that people's decisions would be influenced by confirmation bias (i.e., attempting to gather support for one's view) they were not told anything about what the data would reveal in advance. In this way we attempted to rule out the possibility that selecting less data would reflect people's disinterest in things they already know. If interest in novel data is related to political orientation, then we should see a direct relation between these variables. Alternatively, if interest in novel data is related to the extremity of political orientation we should see a quadratic relationship such that people at both ends of the political orientation measure are less interested in the data than those closer to the middle (i.e., an inverted "U").

3.1. Participants

A total of 227 undergraduate psychology students at the University of Alabama (140 females, M_{age} = 19.60 years, SD_{age} = 2.52) participated for course credit. These participants completed one of two studies, the first involving a manipulation of pre-existing support for the just world hypothesis (n = 118) and the second involving a manipulation of comprehensibility (n = 109).

We used pairwise deletion in all studies, causing degrees of freedom to vary between analyses. A priori decisions about statistical power were made based on the experimental hypotheses, but a power analysis indicates that this sample size is sensitive enough to detect an effect of $\rho = 0.16$.

3.2. Procedure

After reading the manipulation articles all participants were told that the laboratory has access to a very large data set addressing the justness of the world. They were told that the data set contained data from 5000 participants and addressed 20 specific issues (e.g., "Are successful people more often lucky or hardworking?" or "Do raises tend to go to those who are most deserving or friends of the boss?"). Participants were told that they had the option of viewing any amount of this data, summarized in layman's terms, and were asked to select two things: (1) the number of participants, and (2) the number of issues. It was explicitly stated that choosing more participants and more issues would give them a more accurate picture of reality and would not be more arduous to process. Participants' selections for number of participants and number of issues were highly correlated, $r(221) = 0.53$, $p < 0.001$, and as such we created an aggregate data selection score by standardizing these two variables and then computing their average. At this point, participants completed the Global Belief in a Just World Scale (Rubin & Peplau, 1975), and demographics. They also completed a number of individual difference measures.[1]

3.2.1. Measures

The Global Belief in a Just World scale includes 7 items rated on a 6-point scale (e.g., "I feel that people get what they are entitled to have," $\alpha = 0.79$; Rubin & Peplau, 1975). Participants also answered two items assessing the personal importance of this topic using an 11-point scale (e.g., "My beliefs about this topic are important to me," 1 = *not important at all*, 11 = *very important*). These items were averaged to create an importance index, $\alpha = 0.90$. Finally, participants completed demographic items including age, gender, and political orientation (1 = *very conservative*, 3 = *moderate*, 5 = *very liberal*, 6 = *none*; e.g., Jost et al., 1999). Participants who selected "none" were excluded from analyses involving political orientation ($n = 21$; 12 from the first study and 9 from the second study).

3.3. Results

The mean response for political orientation was $M = 2.68$, $SD = 0.96$, corresponding to a response that falls between 2 = "slightly conservative" and 3 = "moderate." As expected, greater conservatism was associated with stronger belief in a just world, $r(208) = -0.15$, $p = 0.03$. Political orientation was not significantly correlated with importance, $r(168) = 0.03$, $p = 0.73$ and mean ratings were relatively high ($M = 7.40$, $SD = 1.75$), suggesting that the issue of a just world was similarly important to participants regardless of where they fell on the political spectrum. These results help to allay the potential concern that the personal importance of this issue could be a third variable predicting both political orientation and data selection.

We then examined the association between political orientation and the amount of data selected by participants. We found that political orientation was significantly correlated with data selection, $r(202) = 0.23$, $p = 0.001$, such that more conservative participants chose to view less data. These results suggest that more conservative participants were less interested in seeing new data on the issue of whether the world is a just place. In addition, we did not observe a significant correlation between belief in a just world and data selection, $r(221) = 0.01$, $p = 0.85$, suggesting that the stance participants take on this specific issue does not influence their interest in the data.

We also tested the possibility that political extremity was associated with reduced data selection. It might be the case, for instance, that conservatives in our sample were less interested in novel data because they had more extreme political orientations (e.g., "very conservative"). One way to test this possibility is to run a stepwise regression, entering the linear effect of political orientation on information selection in Step 1, and entering the quadratic effect in Step 2.[2] Doing this analysis reveals a marginally significant quadratic effect, $\beta = 0.64$, $t = 1.92$, $p = 0.056$ (Fig. 1). Visual inspection of the quadratic trendline suggests that, in fact, people with more extreme political views might be *more* interested in novel data. Thus, it appears that there is something about conservatism per se, rather than the extremity of one's political orientation that is associated with disinterest in new data in this context.

3.3.1. Summary

The pilot study provided initial evidence that political orientation might be associated with interest in novel data. Specifically, we observed that conservatives wanted to see less data about the justness of the world than did liberals. This effect did not appear to be attributable to differences in just world beliefs, nor to the extremity of one's political views. Thus, it seemed that there might be something about political conservatism, specifically, that is associated with a disinterest in new empirical data.

4. Method – Study 1

One limitation of the Pilot Study was that it focused on only one issue – the justness of the world. We found that conservatives expressed less interest in novel data on this topic than liberals, despite both groups finding this issue similarly important. Nevertheless, it could be the case that liberals' higher levels of data selection are specific to this topic, and do not generalize to other political issues. For this reason, in Study 1 we took a similar approach to the Pilot Study but focused on a different issue – the efficacy of social safety nets. In addition, we also included a self-report measure of curiosity in order to test whether this self-report measure of interest in new information was related to political orientation.

4.1. Participants

A total of 280 undergraduate psychology students at the University of Alabama (172 females, $M_{age} = 19.19$ years, $SD_{age} = 1.20$) completed the study for course credit. A power analysis indicates that this sample size is sensitive enough to detect an

[1] Participants also completed the 14-item version of the Right-Wing Authoritarianism Scale (RWA; Manganelli Rattazzi, Bobbio, & Canova, 2007), the Dogmatism Scale (Altemeyer, 2002), the Cognitive Reflections Task (CRT; Frederick, 2005), the Brief Need for Closure Scale (BNFC; Roets & Van Hiel, 2011), the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), and 20 items assessing religiosity. Correlations between these measures and the main variables of interest (political orientation and data selection) can be found in Supplementary Materials (Table 3). Participants also completed manipulation check items and responded to three claims that were designed to be either consistent or inconsistent with just world beliefs. Because these measures were not relevant to the current investigation we do not discuss them further.

[2] For each study we also checked to see whether the linear trend held controlling for the quadratic trend. In all cases neither trend (linear or quadratic) was significant controlling for the other, βs < 0.70, ps > 0.05. This suggests, consistent with visual inspection of the trends (Figs. 1–4), that there was substantial overlap between the linear and quadratic trends (i.e., within the available range of political orientation, the quadratic trends look almost linear).

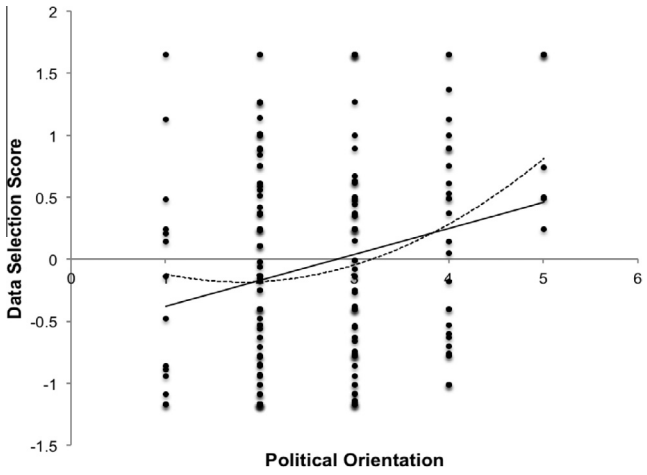

Fig. 1. Scatterplot depicting the relationship between political orientation and data selection in the Pilot study. Higher scores on Political Orientation indicate greater liberalism. The solid line represents the linear trendline and the dotted line represents the quadratic trendline.

effect of $\rho = 0.15$. This sample was conservative in that it gave us the power to detect an effect considerably smaller than that observed in the Pilot Study, $r = 0.23$.

4.2. Procedure

Participants began by completing the same data exposure task used in the Pilot Study, except this time they were told that the data addressed the benefits of social safety nets (e.g., "Do social programs reduce poverty, crime, hunger, or homelessness?" or "How often are social programs inappropriately used by participants?"). As in Study 1, participants were asked to select the quantity of data they were interested in viewing in two different ways: (1) the number of participants, and (2) the number of issues. Participants' selections for number of participants and number of issues were highly correlated, $r(273) = 0.59$, $p < 0.001$, and as such we created an aggregate data selection score by standardizing these two variables and then computing their average. At this point, participants completed the Curiosity and Exploration Inventory II (Kashdan et al., 2009) and filled out demographic information. They also completed a number of individual difference measures.[3]

4.2.1. Measures

Participants completed the Curiosity and Exploration Inventory II, which includes 10 items rated on a 5-point scale (e.g., "I actively seek as much information as I can in new situations," $\alpha = 0.89$; Kashdan et al., 2009). Participants also completed demographic items including age, gender, and political orientation. Participants who selected "none" for political orientation were excluded from analyses involving this variable ($n = 43$).

[3] Participants also completed the 24-item version of the RWA scale (Altemeyer, 1981), the Dogmatism Scale (Altemeyer, 2002), the CRT (Frederick, 2005), the long version of the Need for Closure Scale (Webster & Kruglanski, 1994), the Need for Cognition Scale (Cacioppo, Petty, & Kao, 1984), the Global Belief in a Just World Scale (Rubin & Peplau, 1975), the PANAS (Watson et al., 1988), the Interpersonal Reactivity Index (IRI; Davis, 1983), the Moral Foundations Questionnaire (MFQ; Graham et al., 2009), the Schwartz Values Inventory (SVI; Schwartz, 1992), and the Big Five Inventory of personality (BFI; John & Srivastava, 1999) and 20 items assessing religiosity. Correlations between these measures and the main variables of interest (political orientation and data selection) can be found in Supplementary Materials (Table 4). Participants also responded to questions regarding their attitudes towards specific political issues and their attitudes towards "hipsters." Because these measures were not relevant to the current investigation we do not discuss them further.

4.3. Results

4.3.1. Political orientation and interest in novel data

The mean response for political orientation was $M = 2.68$, $SD = 1.02$, corresponding to a response that falls between 2 = "slightly conservative" and 3 = "moderate." In this study we did not ask participants about their beliefs regarding the benefits of social safety nets or the personal importance of this issue. This choice was made to avoid confounds associated with triggering potentially inconsistent levels of interest in the topic among participants. However, we did assess these relationships in a separate sample ($N = 136$). In this sample, greater liberalism was associated with stronger endorsement of social safety nets, $r(136) = 0.35$, $p < 0.001$. Political orientation was not significantly correlated with importance, $r(136) = -0.05$, $p = 0.52$ and mean ratings were moderate ($M = 6.43$, $SD = 2.44$), suggesting that the issue of social safety nets was similarly important to participants regardless of their political views. As with the Pilot Study, these results reduce the likelihood that the personal importance of this issue could account for any relationship between political orientation and data selection.

We then examined the association between political orientation and the amount of data selected by participants. We found that political orientation was significantly correlated with data selection, $r(231) = 0.16$, $p = 0.02$, such that more conservative participants chose to view less data. Building on the results from the Pilot Study, these findings provide further evidence that conservative participants were less interested in seeing new data on a political issue – in this case, the benefits of social safety nets.

As in the Pilot Study we tested the possibility that political extremity might be associated with reduced data selection. To do so we ran the same stepwise regression as in the Pilot Study, entering the linear effect in Step 1 and the quadratic effect in Step 2. We found that the quadratic effect was not significant, $\beta = 0.18$, $t = 0.61$, $p = 0.541$ (Fig. 2). This finding is consistent with our previous conclusion that there is something about conservatism specifically, rather than the extremity of one's political orientation that is associated with disinterest in new data.

4.3.2. Political orientation and self-reported curiosity

In addition to assessing participants' interest in new information using the data selection task we also measured their self-reported curiosity. This variable was not significantly correlated

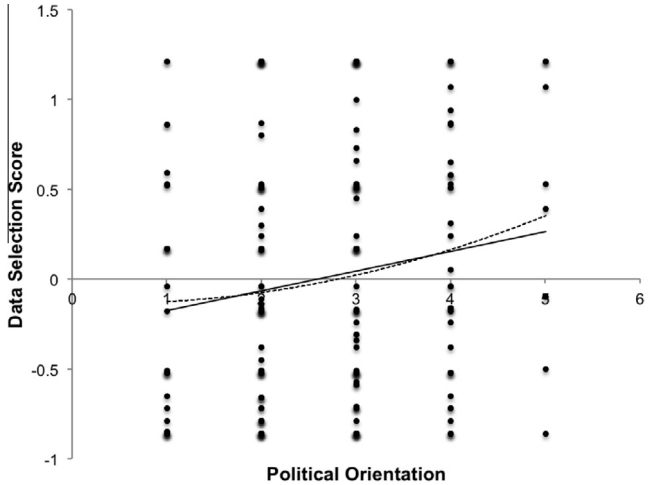

Fig. 2. Scatterplot depicting the relationship between political orientation and data selection in Study 1. Higher scores on Political Orientation indicate greater liberalism. The solid line represents the linear trendline and the dotted line represents the quadratic trendline.

with political orientation, $r(221) = 0.09$, $p = 0.21$ or data selection, $r(255) = 0.04$, $p = 0.52$. These findings suggest that people's self-reported curiosity is relatively independent of their interest in data regarding social safety nets, and that the latter is associated with political orientation whereas the former is not.

4.3.3. Summary

The results of Study 1 replicated those of the Pilot Study, showing that people with more conservative political orientations were less interested in viewing novel scientific data. This time, we found that the effect extended to a different political issue – the efficacy of social safety nets. We also observed that self-reported curiosity was not related to political orientation or to data selection, raising the possibility that disinterest in data may reflect something more specific than a general lack of curiosity.

5. Method – Study 2

Because the Pilot Study and Study 1 were conducted in the southern United States – a traditionally conservative region – we considered the possibility that this effect might not generalize to other regions of the country. Perhaps, for instance, more curious people are more likely to be liberal in the South, where such political views are at odds with the mainstream. Although the relatively moderate scores on our political orientation measure suggest that, at least within the university population liberalism is not uncommon (means fell between "slightly conservative" and "moderate" in both studies), we decided to conduct a replication of Study 1 in California, a traditionally liberal region of the U.S.

5.1. Participants

A total of 198 undergraduate psychology students at the University of California Berkeley (157 females, $M_{age} = 21.34$ years, $SD_{age} = 3.20$) completed the study for course credit. This study was conducted at the same time as Study 1, and was thus not informed by the effect size estimate obtained in Study 1. A power analysis indicates that this sample size is sensitive enough to detect an effect of $\rho = 0.17$. This sample gave us the power to detect an effect considerably smaller than that observed in the Pilot Study, $r = 0.23$.

5.2. Procedure

Participants followed the same procedure that was used in Study 1. The reliability for the Curiosity and Exploration Inventory II was $\alpha = 0.89$. Participants' selections for number of participants and number of issues were highly correlated, $r(196) = 0.66$, $p < 0.001$, so we created an aggregate score in the same manner as in the previous studies. Participants who selected "none" were excluded from analyses involving political orientation ($n = 28$).[4]

5.3. Results

5.3.1. Political orientation and interest in new data

The mean response for political orientation was $M = 3.53$, $SD = 0.80$, corresponding to a response that falls between 3 = "moderate" and 4 = "slightly liberal." As expected, this sample mean falls on the liberal end of the political orientation continuum, in contrast to the sample mean in Study 1 ($M = 2.68$).

We then examined the association between political orientation and the amount of data selected by participants. We found that political orientation was significantly correlated with data selection, $r(168) = 0.21$, $p = 0.01$, such that more conservative participants chose to view less data. Building on the results from Studies 1 and 2, these findings provide further evidence that conservative participants were less interested in seeing new data on a political issue, even in a more liberal political climate.

As in the previous studies we tested the possibility that political extremity might be associated with reduced data selection. To do so we ran the same stepwise regression as in the Pilot Study, entering the linear effect in Step 1 and the quadratic effect in Step 2. We found that the quadratic effect was not significant, $\beta = -0.31$, $t = -0.63$, $p = 0.531$ (Fig. 3). Again, this supports our previous interpretation that conservatism, rather than political extremity, is associated with disinterest in new data.

5.3.2. Political orientation and self-reported curiosity

Self-reported curiosity was not significantly correlated with political orientation, $r(155) = 0.09$, $p = 0.25$ or data selection, $r(180) = 0.00$, $p = 0.99$. As in Study 1, these data suggest that self-reported curiosity is distinct from interest in data regarding social safety nets.

5.3.3. Summary

The result of Study 3 replicated those of Study 2, this time in a traditionally liberal region of the U.S. Again, people who were more politically conservative were less interested in viewing novel empirical data. As in Study 2, self-reported curiosity was unrelated to political orientation and data selection, suggesting that the lack of interest expressed by conservatives might be fairly specific to the type of information – scientific data – that was available.

6. Method – Study 3

In the previous studies we found that more conservative participants were less interested in viewing new data on political issues. We observed these effects in both traditionally liberal and traditionally conservative areas of the U.S., and we found that the effect was similar across two different political issues – the justness of the world and the efficacy of social safety nets. In Study 3, then, we were interested in examining whether these effects would

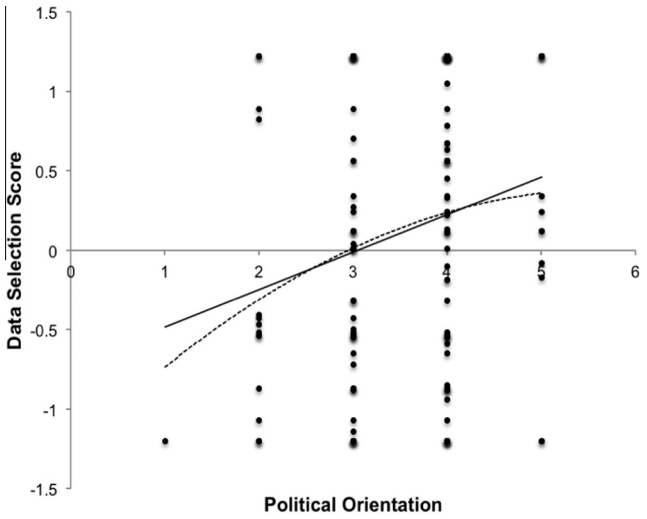

Fig. 3. Scatterplot depicting the relationship between political orientation and data selection in Study 2. Higher scores on Political Orientation indicate greater liberalism. The solid line represents the linear trendline and the dotted line represents the quadratic trendline.

[4] The additional measures included in Study 4 were identical to those included in Study 3. Correlations between these measures and the main variables of interest (political orientation and data selection) can be found in Supplementary Materials (Table 5).

generalize to a non-political issue. Is conservative participants' relative disinterest in novel data limited to political topics, or does it extend to other domains of knowledge as well? With Study 3 we hoped to further test the generalizability of these by using a non-college-student sample. Finally, we aimed to test three possible mediators of this effect. We considered that conservatives may be less interested in viewing data because: (1) they think the data will challenge their views; (2) they think the data will be biased; and (3) they question the informational value of scientific data.

6.1. Participants

A total of 605 mTurk workers (311 females, M_{age} = 37.88 years, SD_{age} = 13.21) completed the study for monetary compensation ($0.40). Participants were excluded if they expressed any suspicion about the data selection task (n = 92; analyses including these participants are reported in Supplementary Materials, Table 6). Thus, our final sample included 513 participants. Given that effect size estimates in the previous three studies varied from r = 0.16 to r = 0.23 we aimed to be conservative in our decisions about power. Initially we decided to collect 300 participants, giving us 80% power to detect an effect of ρ = 0.14. Doing so yielded an effect size estimate of r = 0.09 for our primary effect (the association between political ideology and interest in data on a political issue). Because this effect was smaller than we anticipated, we decided to (approximately) double our sample size in order to increase confidence in our effects. A sample of 605 gives 80% power to detect an effect of ρ = 0.10.

6.2. Procedure

Participants first completed an instructional manipulation check, which is designed to test whether or not participants are paying close attention to written instructions (Oppenheimer, Meyvis, & Davidenko, 2009). Participants who failed this manipulation check twice were prevented from completing the study (n = 19). Participants then went onto complete two different versions of the data exposure task used in the previous studies. One of the versions was identical to that used in Studies 1 and 2 (addressing the benefits of social safety nets), and the other version addressed the benefits of social media (e.g., "Does social media allow people to maintain more relationships than they otherwise would have?" or "Does using social media have a negative impact on people's social skills?"). The order of the two versions was randomized across participants. As in the previous studies, participants were asked to select the quantity of data they were interested in viewing in two different ways: (1) the number of participants, and (2) the number of issues. Participants' selections for number of participants and number of issues were highly correlated for both versions, $r_{political}(508) = 0.66$, $p < 0.001$, $r_{non\text{-}political}(510) = 0.62$, $p < 0.001$, allowing us to create an aggregate data selection score.

Then participants answered 6 items designed to assess possible mediators of the relationship between political orientation and data selection. Two items asked whether they thought the data would challenge their views ("I suspect that this data might challenge my current beliefs" and "I doubt that this data will call my current beliefs into question" [Reverse-coded], $r(513) = 0.30$, M = 3.77, SD = 1.18), two items asked whether they thought the data would be biased ("I think the data may be biased" and "I think that the data is probably quite unbiased" [Reverse-coded], $r(513) = 0.48$, M = 3.48, SD = 1.23), and two items asked whether they questioned the informational value of scientific data ("I'm not sure we can really learn that much from scientific data" and "Scientific data is one of the best sources of information" [Reverse-coded], $r(513) = 0.46$, M = 2.56, SD = 1.20).

For each of the two topics (social safety nets and social media) participants then answered two questions assessing their attitude on that topic (e.g., "I feel that social safety nets [social media] is beneficial") and one question assessing the importance of their attitude on that topic ("My beliefs about this topic are important to me"). Finally, participants completed the Curiosity and Exploration Inventory II (Kashdan et al., 2009; α = 0.91) and filled out demographic information including age, gender, and political orientation. Participants who selected "none" were excluded from analyses involving political orientation (n = 15). Finally, participants were given the opportunity to describe any suspicions they had about the study.

6.3. Results

6.3.1. Political orientation and interest in new data

The mean response for political orientation was M = 3.19, SD = 1.14, corresponding to a response that falls between 3 = "moderate" and 4 = "slightly liberal." As anticipated, this sample was more variable in terms of political orientation (SD = 1.14) and age (SD = 13.21) than were our previous samples ($0.80 < SD_{orientation} < 1.02$; $1.20 < SD_{age} < 3.20$). Supporting our characterization of social safety nets as a political issue and social media a non-political issue, greater liberalism was positively associated with attitudes towards social safety nets, $r(498) = 0.43$, $p < 0.001$, but not with attitudes towards social media, $r(498) = 0.08$, $p = 0.07$.

Ratings of importance were relatively high for both issues ($M_{political}$ = 7.93, $SD_{non\text{-}political}$ = 2.33; $M_{non\text{-}political}$ = 7.00, $SD_{non\text{-}political}$ = 2.52) demonstrating that participants think that their attitudes about these issues are important. For social safety nets, political orientation was not significantly correlated with the personal importance of one's attitude, $r(498) = 0.01$, $p = 0.78$. For social media, however, political orientation was correlated with the personal importance of one's attitude, $r(498) = -0.13$, $p = 0.005$. Thus, for the political issue (social safety nets) importance is unlikely to explain any observed relationship between political orientation and data selection. For the non-political issue (social media), however, it is possible that importance may partially account for such an association.

We then examined the relationship between political orientation and data selection. For the political issue (social safety nets) we observed that political orientation was significantly correlated with data selection, $r(493) = 0.11$, $p = 0.015$, such that more conservative participants chose to view less data. This directly replicates the findings from Studies 1 and 2, and conceptually replicates the findings from the Pilot Study. For the non-political issue (social media) we observed a marginally significant correlation between political orientation and data selection, $r(495) = 0.08$, $p = 0.071$, in the same direction. Issue type was not a significant moderator of the relationship between political orientation and data selection, $F(1,491) = 1.48$, $p = 0.224$. Thus, these results provide preliminary evidence that the association between political orientation and data selection may extend to non-political issues.

For both issues we tested whether extremity was associated with reduced data section. To do so we ran the same stepwise regression as in the Pilot Study, entering the linear effect in Step 1 and the quadratic effect in Step 2. We found that the quadratic effect was non-significant for both the political issue, $\beta = 0.09$, $t = 0.43$, $p = 0.669$, and the non-political issue, $\beta = -0.07$, $t = -0.29$, $p = 0.774$ (Fig. 4). Again these results are inconsistent with an account that proposes that holding extreme political views, regardless of orientation, is associated with disinterest in novel data.

6.3.2. Political orientation and self-reported curiosity

This time, self-reported curiosity was marginally correlated with political orientation, $r(498) = 0.09$, $p = 0.052$ and data

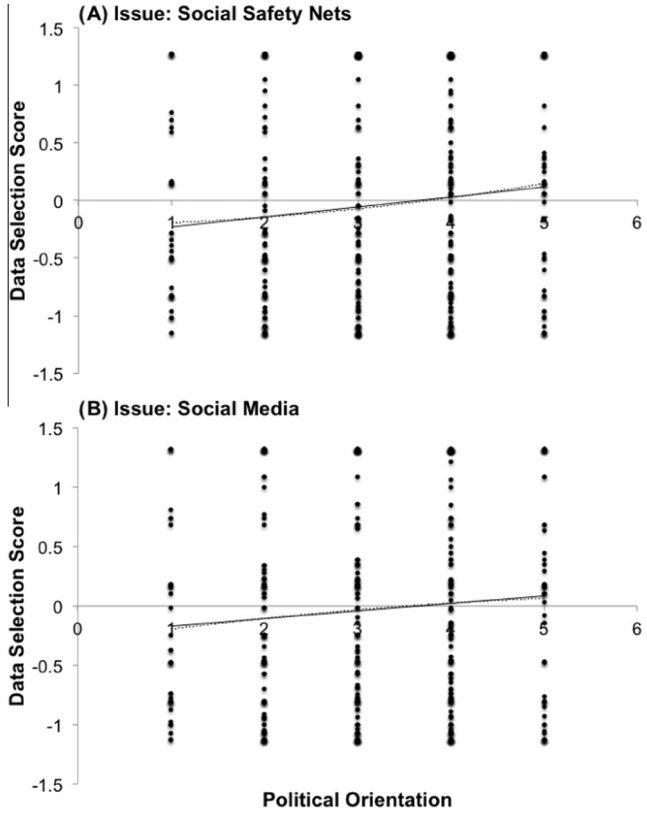

Fig. 4. Scatterplots depicting the relationship between political orientation and data selection in Study 4. Higher scores on Political Orientation indicate greater liberalism. (A) Data selection score refers to political issue (social safety nets). (B) Data selection score refers to non-political issue (social media). The solid line represents the linear trendline and the dotted line represents the quadratic trendline.

selection for both the political issue, $r(508) = 0.18$, $p < 0.001$ and the non-political issue, $r(510) = 0.17$, $p = 0.001$. In this sample, then, self-reported curiosity was positively associated with interest in new data, in contrast to our findings from the previous three studies. Thus, we found some evidence that people who claim to be more curious also select more data, but this relationship was relatively weak and inconsistent across studies.

6.3.3. Mediation

In order to gain greater insight into why political orientation is associated with data selection, we tested three possible mediating variables. We considered that conservatives might be less interested in viewing the data because: (1) they think the data will challenge their views; (2) they think the data will be biased; and (3) they question the informational value of scientific data. Examining the correlations between these variables and political orientation, we found that more conservative participants were more likely to question science, $r(498) = -0.19$, $p < 0.001$, and that questioning science was negatively related to data selection for both types of issue, $r_{political}(508) = -0.29$, $p < 0.001$, and $r_{non\text{-}political}(510) = -0.28$, $p < 0.001$ (Table 1). Neither of the other potential mediators was significantly correlated with political orientation.

Based on these results, we conducted a mediation analysis using Preacher and Hayes (2008) procedure. Our goal was not to test a specific temporal model (e.g., political orientation *leads to* questioning science, which then *leads to* data selection), but instead to determine whether questioning science could help to account for the relationship between political orientation and data selection (Preacher & Hayes, 2008). Parameter estimates were

Table 1
Correlations between political orientation, data selection, and potential mediators.

	2.	3.	4.	5.	6.
1. Political Orientation	0.11*	0.08†	0.06	−0.08†	−0.19**
2. Data Selection – Political		0.87**	0.14**	−0.04	−0.29**
3. Data Selection – Non-Political			0.11*	−0.06	−0.28**
4. Challenge Views				−0.09†	−0.10*
5. Data is Biased					0.47**
6. Question Science					

Ns vary from 493 to 513 due to missing data. Higher scores on Political Orientation indicate greater liberalism.
** $p < 0.01$.
* $p < 0.05$.
† $p < 0.1$.

obtained using bootstrap analysis with 5000 resamples. Mediation is said to be significant if the 95% bias-corrected confidence interval for the parameter estimate does not contain 0. For the political issue (social safety nets), the indirect effect was 0.042, $SE = 0.01$, 95% CI [0.022, 0.067], demonstrating that questioning science significantly mediated the effect. For the non-political issue (social media), the indirect effect was 0.041, $SE = 0.01$, 95% CI [0.021, 0.067], again demonstrating that questioning science significantly mediated the effect (Fig. 5). Normal theory tests (Sobel, 1982) corroborate these results, and show significant mediation for both the political, $Z = 3.58$, $p < 0.001$, and non-political issues $Z = 3.56$, $p < 0.001$. These results show that more conservative participants are more likely to question science, and choose to select less scientific data as a result.

6.3.4. Summary

With Study 3, we again found that people who were more politically conservative were less interested in viewing empirical data examining a political issue (social safety nets). We observed tentative evidence that this finding might extend to non-political issues (social media), but with the current data it would be premature to draw conclusions about the generalizability of the effect. Finally, Study 3 revealed one factor that helped to account for the association between conservatism and disinterest in scientific data: conservatives were more likely to question the informational value of science.

7. General discussion

The present research sought to address the link between political orientation and disinterest in empirical data. Departing from past studies, we examined people's willingness to expose themselves to entirely new data with no known position on a political issue. Our results provide evidence that avoidance of novel data is greater amongst people who are more politically conservative. Moreover, results from Study 3 begin to shed light on why this might be the case. More conservative people were also more likely to question the informational value of science, and this was in turn associated with choosing to view smaller amounts of data.

Although these results are consistent with the idea that conservatives may be less open to new information, they do not necessarily imply that conservatives are more defensive (i.e., more prone to avoiding information that challenges their views). Findings from Study 3 show that, on the contrary, more conservative participants were marginally *less* likely to say that they thought the data might challenge their views. Unexpectedly, people who did not think the data would challenge their views also saw the data as more biased, and questioned science more. One possibility is that people are less likely to see the data as challenging if they doubt the credibility of the data. Alternatively, it may be unlikely that people can accurately report concerns about their views being challenged (i.e.,

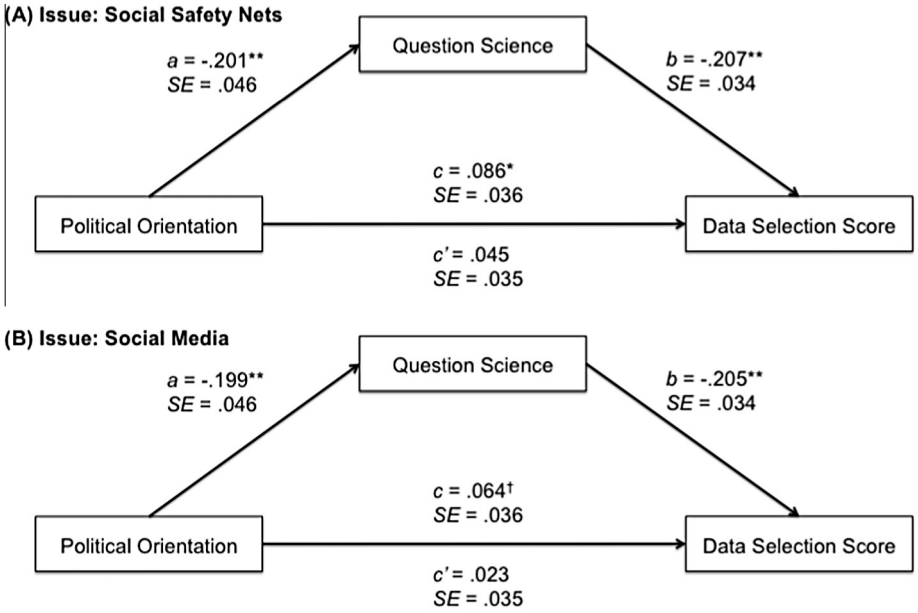

Fig. 5. A mediation model depicting the relationship between political orientation and data selection with questioning science as a mediator; *c* is the total effect of political orientation on data selection and *c'* is the direct effect of political orientation on data selection. Unstandardized regression coefficients from a bootstrap procedure are provided along with their associated standard errors. Higher scores on Political Orientation indicate greater liberalism. (A) Data selection score refers to the political issue (social safety nets; $N = 493$). (B) Data selection score refers to the non-political issue (social media; $N = 495$). $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.10$.

defensiveness), especially if this threat operates on an unconscious level. Given this ambiguity our results are inconclusive regarding conservative defensiveness, but provide clearer support for conservative skepticism about empirical science.

These findings build on previous research conducted by Gauchat (2012), which showed that conservatives tend to be less trustful of the scientific community compared to liberals. It is possible that, despite the ostensible objectivity of data collection, distrusting scientists might spill over into distrusting data. If this were the case, however, we should have found that conservatives were more likely to think the data were biased, and consequently less likely to express interest. On the contrary, we did not find support for this meditational pathway, and instead found that our results were mediated by questioning science on an epistemological level. In other words, it appears that conservatives did not select less data because they suspected that scientists biased the data, but rather because they were not convinced that science is a good method to learn about the world.

The absence of a relationship between self-reported curiosity and political orientation in Studies 1 and 2 further helps in interpreting decisions to view less data. Although more conservative participants consistently chose to view less data than their liberal counterparts across all four studies, we saw little evidence (except for a marginal result in Study 3) that conservative participants see themselves as generally less curious. It might be the case, then, that conservative participants are just as curious as liberal participants, but this curiosity is manifest when information is presented in a different format (e.g., expert opinion, historical analysis, etc.). Alternatively, it may be the case that conservatives overestimate their curiosity (or that liberals underestimate their curiosity) on self-report measures.

By addressing three separate issues – the justness of the world (Pilot Study), the efficacy of social safety nets (Studies 1–3), and the benefits of social media (Study 3) – we hoped to increase the generalizability of our findings. The two political topics were chosen because they are broad and multifaceted beliefs, and thus, participants' views on these issues might be less idiosyncratic than those about more specific issues like gay marriage or abortion. The consistency of the association between liberalism and increased data selection across all three studies lends credence to the possibility that this finding may apply to a range of political issues. Currently, conclusive statements about whether conservatives are less interested in data on non-political issues would be premature. The present data seem to provide tentative evidence for a small association between liberalism and greater interest in non-political data.

We hoped to increase the generalizability of our findings in another way as well: by assessing these effects in a variety of samples. We conducted Studies 1 and 2 in two politically distinct regions of the United States, the South and the West Coast. Our observation that liberalism is associated with greater data selection in both traditionally conservative and traditionally liberal regions of the country suggest that interest in novel data is not simply a correlate of being a political minority. In other words, there appears to be something about being liberal, rather than being a political outlier, that is associated with greater interest in novel data. In addition, we conducted Study 3 in a non-student sample, in order to ensure that our findings were not unique to that demographic category. We observed the same association between political orientation and data selection in this sample, suggesting that our findings may generalize to a broader population.

7.1. Limitations

Perhaps the biggest limitation of the current studies is that participants were not selecting data from real data sets. One benefit this approach is that it allowed us to control what participants were told about the amount and type of data available. A consequence, however, is that some participants may have been suspicious about the task, and behaved differently than they would have otherwise. We attempted to address this concern in Study 3 by directly assessing suspicion and excluding participants who were skeptical of our cover story. Doing so left the association

between political orientation and information selection largely unchanged (in fact, it became slightly stronger, from $r = 0.09$ to $r = 0.11$). Suspicion may have been more pervasive in the other three studies as they were conducted with psychology undergraduates who may be more aware of the potential for deception than an mTurk population. If, as in Study 3, the exclusion of suspicious participants would have had little impact on the effect this would not present a challenge to our conclusions, but currently we cannot test this directly because suspicion was not assessed in these studies.

Another limitation of the studies reported here is that it is difficult to draw conclusions about the temporal course of our effects given that our data is correlational and cross-sectional. For the mediation analysis in Study 3 in particular, this means that our conclusions must be of a very different nature than if the same analysis had been conducted on experimental or longitudinal data (Cole & Maxwell, 2007). Our mediation results simply indicate that the relationship between conservatism and data selection can be partially accounted for by questioning science. This evidence does not establish a temporal pathway; one cannot conclude that conservatism *leads to* questioning science, which *leads to* disinterest in data. Such temporal pathways could provide a fruitful avenue for future experimental or longitudinal research.

7.2. Conclusion

Overall, our results suggest that there is something about a conservative political outlook – rather than any extreme political outlook, or any minority political view – that is associated with relative avoidance of new empirical data. These findings may speak more broadly to how liberals and conservatives differ with respect to the decision-making strategies or information gathering they deem most relevant when making a judgment. It seems to be the case that conservatives and liberals are divided as to the evidentiary value of science, and as a consequence conservatives are simply less interested in viewing scientific data than are their liberal counterparts. Having a greater understanding of this phenomenon may provide insight into when people are persuaded by arguments regarding political (and perhaps non-political) issues. For instance, empirical evidence about global warming may be relatively persuasive to a liberal, whereas different types of information might be more persuasive to a conservative. Indeed, this is consistent with findings showing that liberals' views on climate change are more in line with scientists' views than are conservatives' (McCright & Dunlap, 2011). Further investigating the present phenomenon, then, may provide a deeper understanding of political polarization and partisanship, and thus contribute to facilitating productive disagreement.

Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.jrp.2016.06.018.

References

Altemeyer, B. (1981). *Right-wing authoritarianism*. Winnipeg: University of Manitoba Press.

Altemeyer, B. (2002). Dogmatic behavior among students: Testing a new measure of dogmatism. *The Journal of Social Psychology, 142*, 713–721.

Brannon, L. A., Tagler, M. J., & Eagly, A. H. (2007). The moderating role of attitude strength in selective exposure to information. *Journal of Experimental Social Psychology, 43*(4), 611–617.

Brock, T. C., & Balloun, J. L. (1967). Behavioral receptivity to dissonant information. *Journal of Personality and Social Psychology, 6*(41), 413.

Cacioppo, J. T., Petty, R. E., & Kao, C. F. (1984). The efficient assessment of need for cognition. *Journal of Personality Assessment, 48*, 306–307.

Cole, D. A., & Maxwell, S. E. (2007). Bias in cross-sectional analyses of longitudinal mediation. *Psychological Methods, 12*(1), 23–44.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113–126.

Frederick, S. (2005). Cognitive reflection and decision making. *Journal of Economic Perspectives, 19*(4), 25–42.

Frey, D. (1986). Recent research on selective exposure to information. *Advances in Experimental Social Psychology, 19*(1), 41–80.

Gauchat, G. (2012). Politicization of science in the public sphere: A study of public trust in the United States, 1974–2010. *American Sociological Review, 77*(2), 167–187.

Golec, A. (2001). Konserwatyzm polityczny a potrzeba poznawczego domknięcia w badaniach polskich. *Studia Psychologiczne, 39*, 41–58.

Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2009). Mapping the moral domain. *Journal of Personality and Social Psychology, 101*, 366–385.

Hart, W., Albarracín, D., Eagly, A. H., Brechan, I., Lindberg, M. J., & Merrill, L. (2009). Feeling validated versus being correct: A meta-analysis of selective exposure to information. *Psychological Bulletin, 135*(4), 555.

Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014). Differences in negativity bias underlie variations in political ideology. *Behavioral and Brain Sciences, 37*(3), 297–307.

Iyengar, S., Hahn, K. S., Krosnick, J. A., & Walker, J. (2008). Selective exposure to campaign communication: The role of anticipated agreement and issue public membership. *The Journal of Politics, 70*(1), 186–200.

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102–138). New York, NY: Guilford.

Jonas, E., Schulz-Hardt, S., Frey, D., & Thelen, N. (2001). Confirmation bias in sequential information search after preliminary decisions: An expansion of dissonance theoretical research on selective exposure to information. *Journal of Personality and Social Psychology, 80*(4), 557.

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin, 129*(3), 339.

Jost, J. T., Kruglanski, A. W., & Simon, L. (1999). Effects of epistemic motivation on conservatism, intolerance, and other system justifying attitudes. In L. Thompson, D. M. Messick, & J. M. Levine (Eds.), *Shared cognition in organizations: The management of knowledge* (pp. 91–116). Mahwah, NJ: Erlbaum.

Kashdan, T. B., Gallagher, M. W., Silvia, P. J., Winterstein, B. P., Breen, W. E., Terhar, D., & Steger, M. F. (2009). The curiosity and exploration inventory-II: Development, factor structure, and psychometrics. *Journal of Research in Personality, 43*, 987–998.

Knobloch-Westerwick, S., & Meng, J. (2009). Looking the other way selective exposure to attitude-consistent and counterattitudinal political information. *Communication Research, 36*(3), 426–448.

Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin, 108*, 480–498.

Lavine, H., Lodge, M., & Freitas, K. (2005). Threat, authoritarianism, and selective exposure to information. *Political Psychology, 26*(2), 219–244.

Manganelli Rattazzi, A. M., Bobbio, A., & Canova, L. (2007). A short version of the right-wing authoritarianism (RWA) scale. *Personality and Individual Differences, 43*(5), 1223–1234.

McCright, A. M., & Dunlap, R. E. (2011). The politicization of climate change and polarization in the American public's views of global warming, 2001–2010. *The Sociological Quarterly, 52*(2), 155–194.

Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology, 45*(4), 867–872.

Peterson, B. E., Smirles, K. A., & Wentworth, P. A. (1997). Generativity and authoritarianism: Implications for personality, political involvement, and parenting. *Journal of Personality and Social Psychology, 72*, 1202–1216.

Pew Research Center (2014). Political polarization in the American public: How increasing ideological uniformity and partisan antipathy affect policy, compromise, and everyday life. Retrieved from: <http://www.people-press.org/files/2014/06/6-12-2014-Political-Polarization-Release.pdf>. June.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling procedures for assessing and comparing indirect effects in multiple mediator models. *Behavioral Research Methods, 40*, 879–891.

Rokeach, M. (1960). *The open and closed mind*. Oxford: Basic Books.

Roets, A., & Van Hiel, A. (2011). Item selection and validation of a brief, 15-item version of the need for closure scale. *Personality and Individual Differences, 50*, 90–94.

Ross, L., Lepper, M., & Ward, A. (2010). History of social psychology: Insights, challenges, and contributions to theory and application. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (pp. 3–50). Hoboken, NJ: Wiley.

Rubin, Z., & Peplau, L. A. (1975). Who believes in a just world? *Journal of Social Issues, 31*(3), 65–89.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology, 25*, 1–65.

Shook, N. J., & Fazio, R. H. (2009). Political ideology, exploration of novel stimuli, and attitude formation. *Journal of Experimental Social Psychology, 45*(4), 995–998.

Sidanius, J., & Pratto, F. (2001). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York, NY: Cambridge University Press.
Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equation models. In S. Leinhart (Ed.), *Sociological methodology 1982* (pp. 290–312). San Francisco, CA: Jossey-Bass.
Stroud, N. J. (2010). Polarization and partisan selective exposure. *Journal of Communication, 60*(3), 556–576.
Sweeny, K., Melnyk, D., Miller, W., & Shepperd, J. A. (2010). Information avoidance: Who, what, when, and why. *Review of General Psychology, 14*(4), 340.
Taber, C. S., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science, 50*(3), 755–769.
Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of personality and social psychology, 67*(6), 1049–1062.
Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063–1070.