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CHAPTER FIVE

Ideological Differences in Epistemic Motivation: Implications for Attitude Structure, Depth of Information Processing, Susceptibility to Persuasion, and Stereotyping

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¹ Margarita Krochik was a doctoral student at NYU who died of a rare form of stomach cancer on February 14, 2013 at the age of 29. She was fascinated by cognitive and motivational similarities and dissimilarities between liberals and conservatives and had hoped to develop social interventions to increase cooperation and civility across ideological boundaries (see also Krochik & Jost, 2011). This chapter describes studies that she conducted along with her primary research advisor, John T. Jost. Part of this work was conducted in collaboration with Brian Nosek, and other parts were conducted with the assistance of two exemplary honors students, Andrea Miller and Tina Schweizer. Statistical advice was provided by Patrick Shrout, and moral support was provided by Michael W. Morris and Zhana Vrangalova, among many others. Thanks also to Andrew Elliot, Curtis D. Hardin, and György Hunyady for helpful comments on earlier version of this manuscript.

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Abstract

In an extended elaboration of the theory of political ideology as motivated social cognition, we describe ideological differences in epistemic motivation and their consequences for attitude structure, depth of information processing, susceptibility to persuasion, and stereotyping. Liberals score higher than conservatives on need for cognition and open-mindedness, whereas conservatives score higher than liberals on intuitive thinking and self-deception. These differences help to explain greater attitudinal certainty and stability among conservatives, greater ambivalence and more self-reported thinking among liberals, and stronger correspondence between “gut” and “actual” feelings as well as implicit and explicit attitudes among conservatives. Liberals are more likely to process information systematically, recognize differences in argument quality, and to be persuaded explicitly by scientific evidence, whereas conservatives are more likely to process information heuristically, attend to message-irrelevant cues such as source similarity, and to be persuaded implicitly through evaluative conditioning. Conservatives are also more likely than liberals to rely on stereotypical cues and assume consensus with like-minded others.

I don’t trust books. They’re all fact, no heart. And that’s exactly what’s pulling our country apart today. Because face it, folks, we are a divided nation. Not between Democrats or Republicans, or conservatives and liberals, or tops and bottoms. No, we are divided by those who think with their head, and those who know with their heart...

Stephen Colbert, The Colbert Report, October 17, 2005

1. INTRODUCTION

The study of motivated reasoning—that is, the ways in which individuals, because of psychological needs, goals, and desires that shape information processing, reach conclusions that they (on some level) wish to reach rather than ones demanded by adherence to logic or evidence—may have originated with Sigmund Freud, but it has become something of a cottage...
industry in psychology. Several decades of research in experimental psychology and, more recently, political science demonstrate that people frequently process information selectively to reach desired conclusions while avoiding information that, objectively speaking, would lend credence to alternative points of view (e.g., Ditto & Lopez, 1992; Dunning, 1999; Frey, 1986; Gilovich, 1991; Kruglanski, 1996; Kunda, 1990; Lau & Redlawsk, 2006; Lord, Ross, & Lepper, 1979; Munro et al., 2002; Mutz, 2006; Nyhan & Reifler, 2010; Pyszczynski & Greenberg, 1987; Sears & Freedman, 1967; Taber & Lodge, 2006). This body of work highlights one very important way in which motivational processes can bias information processing: when people care “too much” about an issue or outcome, they are prone to reach specific (“directional”) conclusions without adequately taking into account the quality of evidence for or against those conclusions.

At the same time, some deficiencies in human reasoning and judgment are attributable to relatively superficial or “heuristic” types of information processing, which are especially common when people are lacking in certain kinds of epistemic motivation. Dual process models of social cognition and persuasion suggest that individuals are less attentive to the quality of argumentation (1) when the issue in question is low in personal self-relevance (Chaiken, Liberman, & Eagly, 1989; Mackie, Worth, & Asuncion, 1990) and (2) when the individuals are low in accuracy motivation (Chen, Shechter, & Chaiken, 1996; Thompson, Roman, Moskowitz, Chaiken, & Bargh, 1994) and/or the “need for cognition” (Cacioppo, Petty, & Morris, 1983; Petty & Cacioppo, 1986) or (3) high in epistemic needs for order, structure, and closure (Kruglanski & Freund, 1983; Klein & Webster, 2000; Kruglanski, Webster, & Klem, 1993; Neuberg & Newsom, 1993; Schaller, Boyd, Yohannes, & O’Brien, 1995). In other words, motivational processes can also shape information processing in a “nondirectional” manner: when people care “too little” about something in particular (or about the truth in general), they are prone to commit errors in reasoning and to be unduly swayed by irrelevant (“peripheral” or “heuristic”) factors such as emotions, intuitions, and loose associations. According to Kahneman (2013), many errors in judgment are due to “System 1” processing, which is associated with rapid, automatic, emotional, stereotypical, subconscious forms of thinking.

In response to the sprawling, voluminous research literature on social, cognitive, and motivational biases in judgment and decision-making, authors routinely issue scathing indictments of the human capacity for objectivity, especially when it comes to matters of social, moral, or political
significance. Shermer (2011), for instance, writes that human beings simply “sort through the facts and select those that confirm what we already believe and ignore or rationalize away those that contradict our beliefs” (p. 36). Haidt (2012) likewise declares that: “Conscious reasoning functions like a press secretary who automatically justifies any position taken by the president. With the help of our press secretary, we are able to lie and cheat often, and then cover it up so effectively that we even fool ourselves. Reasoning can take us to almost any conclusion we want to reach” (p. 91). These are strong, virtually solipsistic claims that deny the very existence of epistemic virtues associated with the pursuit of accurate knowledge and the human capacity for systematic, deliberative processing of information (what Kahneman and others refer to as “System 2” thinking) and the incorporation of logic and empirical evidence.

The problem, scientifically speaking, is that such a dire image of human cognition is contradicted by evidence suggesting that when people possess mental and physical resources and are sufficiently motivated to achieve accuracy and to process information systematically rather than heuristically, they are able to engage in relatively careful, complex forms of reasoning and to distinguish between strong and weak arguments (e.g., Chen et al., 1996; Kruglanski & Freund, 1983; Kunda, 1990; Petty & Cacioppo, 1986; Thompson et al., 1994). There are, furthermore, studies documenting individual and group differences in epistemic motivation, depth of information processing, and rational reflection (e.g., Frederick, 2005; Kemmelmeier, 2010; Kruglanski et al., 1993; Petty & Cacioppo, 1986; Stanovich, West, & Toplak, 2011) as well as other relevant variables such as self-deception and susceptibility to “positive illusions” (Paulhus & Reid, 1991; Robins & Beer, 2001; von Hippel, Lakin, & Shakarchi, 2005). So it not need be the case that everyone is prone at all times to deficient forms of reasoning, let alone equally so, even when it comes to the consideration of social, moral, and political issues. As Stephen Colbert put it, there may be important differences between “those who think with their head, and those who know with their heart.” We acknowledge that there are important points to be made about motivated reasoning in general and hypothesis-confirming biases in particular, but, as Jost (2011) put it, the “psychological evidence hardly warrants unmitigated nihilism about the epistemic value of the mental activity of an entire species—even ours. Self-deception may be common, but it is partial rather than absolute, and it is a variable, not a constant” (p. 1222). Etzioni (2014) made a very similar point in the context of
research on behavioral economics when he noted that “rationality is a continuous variable.”

2. IDEOLOGICAL SYMMETRIES AND ASYMMETRIES IN MOTIVATED REASONING

Norms of politeness and/or political correctness—and perhaps the “system-justifying” desire to believe that members of all major parties in the democratic systems on which we depend are more or less equally (in)capable of objectivity—may inhibit social and behavioral scientists from the hearty exploration of left–right ideological differences in motivated reasoning. Nevertheless, there is evidence suggesting that adherents of some ideologies may be more likely than others to process complex information in a deep, systematic, or objective manner. This, essentially, is the thesis of the journalist Mooney’s (2012) controversial but well-researched book, The Republican Brain, which notes that, despite having been exposed to evidence of the contrary, a majority of US conservatives continue to hold false, often illogical beliefs in a number of important political domains. Examples include the beliefs that President Obama is a Muslim (as well as a socialist), the Patient Protection and Affordable Care Act of 2009 represents a “government takeover of health care,” abortion increases a woman’s risk of breast cancer (and mental illness), weapons of mass destruction were eventually found in Iraq after the US invasion in 2003, tax cuts increase government revenue, and there is no scientific consensus about the occurrence of human evolution and anthropogenic climate change (Mooney, 2012, pp. 5–7).

Of course, it is possible to find examples of people on the left engaging in motivated reasoning and resisting or denying evidence that they find to be inconvenient or incompatible with other cherished beliefs (e.g., Bartels, 2002; Kahan, 2013; Nisbet, Cooper, & Garrett, in press). Nevertheless, it is rare to find established, well-respected liberals in the United States and elsewhere who—like President George W. Bush and other conservatives parodied by Stephen Colbert—proudly tout the superiority of “gut-level,” emotional intuitions (or what one might want to believe) over the systematic processing of evidence, especially when it comes to issues of major significance, such as climate change, economic policy, and the use of military force. A reviewer of Bush’s (2010) memoir Decision Points wrote that: “Bush tends to make up his mind early, with only limited deliberation, usually based on instinct, and the hard work of the bureaucracies, the national
discourse, the international consultations, was about selling and rationalizing what the president had already decided” (Telhami, 2011).

The right not only comes off as extremely suspicious of scientific experts (e.g., MacCoun & Paletz, 2009; Mooney, 2012), but also surprisingly forthright about embracing intuitive strategies of motivated reasoning. For instance, Republican Senator James Inhofe, a prominent skeptic of global warming and author of The Greatest Hoax, told MSNBC talk show host Rachel Maddow that, with respect to climate change, “I was actually on your side of this issue when I was chairing that committee and I first heard about this. I thought it must be true until I found out what it cost.” In other words, Inhofe admitted that his skepticism about climate change was motivated, at least in part, by the impression that doing something about it would be “too” expensive. At a 2014 conference on climate change at the New School University, Former Republican Congressman Bob Inglis similarly explained conservative opposition to environmental regulations (like “cap and trade”) as follows: “When you’re confronted with a solution that doesn’t fit your values, what do you do? You go back and doubt whether there’s a problem.” He went on to compare the situation to one in which a patient, after hearing from his doctor about the severity of a possible cure, simply decides that he is no longer ailing (http://new.livestream.com/TheNewSchool/climate-change-demands-we-change).

Public opinion data from the Gallup organization suggest that the failure to adequately consider evidence that contradicts their point of view may be harming perceptions of the Republican Party (Saad, 2013). When American adults were asked to name one or two things they disliked most about each of the major political parties, 21% stated that the Republican Party was “too inflexible” or “unwilling to compromise”; this was the most common complaint, and it was shared by Democratic, Independent, and Republican perceivers alike (Only 8% said that Democrats were inflexible or unwilling to compromise). Work in social, personality, and political psychology, much of which was reviewed by Mooney (2012), suggests that stereotypes of conservatives as relatively stubborn and closed-minded may possess at least a kernel of truth.

We hasten to point out that a number of studies suggest a symmetrical pattern of motivated reasoning and biased information processing on the left and the right (e.g., Kahan, 2013; Knoblach-Westervick & Meng, 2009; Nisbet et al., in press). Nevertheless, more than a few studies clearly point to the existence of ideological asymmetries—and in virtually every one of these cases the results suggest that liberals are less likely than
conservatives to process information in a selective or distorted manner (for a partial review, see Jost, Hennes, & Lavine, 2013, pp. 865–867). For example, liberals are more likely than conservatives to seek out and expose themselves to a wide range of opinions, including contrary opinions (Garrett, 2009; Iyengar & Hahn, 2009; Iyengar, Hahn, Krosnick, & Walker, 2008; Sears & Freedman, 1967), and less likely to engage in one-sided political conversations (Mutz, 2006). Nam, Jost, and Van Bavel (2013) observed a general unwillingness on the part of conservative participants (which was unrivaled by their liberal counterparts) to write a counter-attitudinal essay (in this case in favor of Democratic presidents), suggesting that conservatives were more highly motivated than liberals to avoid a situation that might arouse cognitive dissonance.

Some studies involving small samples of college students suggest that the policy preferences of Democrats and Republicans are strongly (and more or less equivalently) influenced by cues indicating political partisanship (Cohen, 2003). At the same time, the results of two experiments involving large samples of adult partisans revealed that Republicans were more sensitive than Democrats to partisan cues, whereas Democrats were more attentive than Republicans to information about policy content (Bullock, 2011). Interestingly, the differences between Democrats and Republicans were enhanced by epistemic motivation, so that Democrats who scored higher on the need for cognition were more focused on policy content, whereas Republicans who scored higher on the need for cognition were less focused on policy content. In reflecting on these results, Bullock (2011) noted that, “Political scientists know much about attitude differences between members of different parties, but partisans’ thinking about politics may differ in more basic respects, and this possibility has received little attention.”

Nyhan and Reifler (2010) explored “the backfire effect,” which occurs when individuals express more rather than less certainty about a false belief once it has been debunked. Specifically, they instructed research participants to read a news article concerning the putative existence of weapons of mass destruction in Iraq and later presented half of the participants with a “correction” to the original news article. For conservatives (but not for liberals), exposure to the correction strengthened misperceptions produced by the initial article (see also Karasawa, 1998, for a similar effect involving social stereotypes). Mooney and Young (described in Mooney, 2012, Chapter 13) found that social and economic conservatives were less open to counterattitudinal information and more likely than liberals to engage in motivated reasoning not only with respect to global warming, but
even on a topic like nuclear power, for which one might expect strong liberal opposition. The researchers also observed that conservatives spent less time reading the information presented before rendering an opinion. Taken as a whole, then, the research literature on motivated reasoning has yielded robust evidence of asymmetrical—as well as symmetrical—effects of political ideology.

In this chapter, we probe more deeply the possibility that there are indeed meaningful ideological asymmetries in epistemic motivation and preferred thinking or reasoning styles. We propose that there may be ideological differences in motivational priority when it comes to intuitive, heuristic, or “gut-level” processes (as opposed to more deliberative, systematic, or evidence-based processes) involved in judgment and decision-making. Presumably, these differences have implications not only for the ways in which liberals and conservatives process information (at implicit as well as explicit levels of awareness), but also for the kinds of arguments and social influence tactics that are likely to be persuasive to them. Some have suggested that differences between liberals and conservatives in terms of thinking style may be attributable to disparities in terms of cognitive abilities. In fact, there is evidence suggesting that liberals score higher than conservatives on tests of general intelligence (e.g., Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Deary, Batty, & Gale, 2008; Heaven, Ciarrochi, & Leeson, 2011; Hodson & Busseri, 2012; Stankov, 2009). Independent of any differences in cognitive ability, our approach highlights motivational factors—such as openness, need for cognition, and self-deception as well as needs for order, structure, and closure—that could contribute to differences in attitude strength and conviction, heuristic versus systematic forms of information processing, susceptibility, and resistance to different types of social influence attempts, and stereotyping behavior. Our springboard is a theory of political ideology as “motivated social cognition,” which was initially proposed by Jost, Glaser, Kruglanski, and Sulloway (2003a, 2003b) and has been further refined and developed in a number of publications over the last decade.

3. A THEORY OF POLITICAL IDEOLOGY AS MOTIVATED SOCIAL COGNITION

In an ambitious effort to integrate 50 years of theory and research on the psychological bases of left–right (or liberal–conservative) differences, Jost et al. (2003a) focused on situational and dispositional variability in epistemic
motives to reduce uncertainty and achieve a sense of order and closure, and existential motives to reduce anxiety and achieve a sense of safety and security. The basic argument was that these motives would foster an ideological preparedness for traditionalism (or resistance to change) and the acceptance and justification of hierarchy or inequality. Consistent with this perspective, a meta-analytic review of 88 studies conducted in 12 countries over a 44-year period involving over 22,000 individual participants or cases confirmed that (1) epistemic motives associated with intolerance of ambiguity, dogmatism, avoidance of uncertainty, cognitive simplicity, and personal needs for order, structure, and closure, as well as (2) existential motives associated with death anxiety and system-level threats were positively related to (3) the endorsement of conservative or right-wing positions, parties, and leaders.

Probably because the subject matter is inherently controversial subject matter, the article by Jost et al. (2003a) was criticized bitterly in some segments of the mass media (e.g., see Dean, 2006; Mooney, 2012; for summaries) and in popularized treatments of political psychology (e.g., Haidt, 2012; Shermer, 2011). Nevertheless, the basic findings and conclusions of the article have been replicated and extended in a variety of important, useful, and creative ways (e.g., see Block & Block, 2006; Everett, 2013; Federico, Ergun, & Hunt, 2014; Fraley, Griffin, Belsky, & Roisman, 2012; Jost et al., 2007, 2008; Kandler, Bleidorn, & Riemann, 2012; Matthews, Levin, & Sidanius, 2009; Young, 2009). Our purpose here is not to review that literature in detail, especially given that comprehensive reviews are already available (e.g., Hibbing, Smith, & Alford, 2014; Jost & Amodio, 2012; Mooney, 2012). Instead, we stress four points that are especially germane to the focus of the present article, namely ideological differences in epistemic motivation.

First, a number of recent studies have provided even stronger evidence that personal needs for order, structure, and cognitive closure are positively and consistently associated with resistance to change, acceptance of inequality, political conservatism, and right-wing orientation (e.g., Chirumbolo, Areni, & Sensales, 2004; Critcher, Huber, Ho, & Koleva, 2009; Federico et al., 2014; Federico & Goren, 2009; Golec de Zavala & Van Bergh, 2007; Jost et al., 2007, 2008; Keller, 2005; Kemmelmeier, 2007; van Hiel, Pandelaere, & Duriez, 2004). The relationship between epistemic motivation and political ideology has been explored in studies of nonverbal behavioral and neurocognitive functioning as well. For instance, Shook and Fazio (2009) exposed research participants to stimuli that varied in terms of their shape and value (i.e., potential gains vs. losses) in the context
of an experimental game. To learn which stimuli were associated with better payoffs, participants would have been well-advised to pursue an initial strategy of exploration that was fairly risky in the short run but beneficial in the long run. The researchers observed that liberals outperformed conservatives in this particular game, insofar as they were more likely to take an open, exploratory approach to learning about environmental contingencies.

Amodio, Jost, Master, and Yee (2007) similarly observed that liberals outperformed conservatives on a computerized “Go”/“No Go” task in which participants were required to respond flexibly by withholding a prepotent, habitual (or dominant) response on a minority of stimulus trials. Of even greater interest, perhaps, was the discovery that on critical “No Go” trials (which required flexible response inhibition), liberals exhibited stronger activation of the anterior cingulate cortex (or ACC), a region of the brain that is implicated in “conflict monitoring” (i.e., sensitivity to potential discrepancies between gut-level behavioral tendencies and more deliberative, higher order cognitive processes). Subsequent work by Kanai, Feilden, Firth, and Rees (2011) suggested that there may be ideological differences in neurological structure (as well as function); in two samples they observed that gray matter volume in the ACC (i.e., regional brain size) was greater for liberals than for conservatives.

A second, potentially related conclusion that follows from recent research on political ideology as motivated social cognition is that the temporary, situational activation of epistemic needs to reduce uncertainty or to achieve cognitive closure—which can be induced through laboratory or real-world manipulations of cognitive load, distraction, time pressure, threat, or alcohol intoxication—tends to increase one’s affinity for conservative, right-wing opinions and labels (e.g., Eidelman, Crandall, Goodman, & Blanchar, 2012; Jost, Krochik, Gaucher & Hennes, 2009b; Lammers & Proulx, 2013; Rock & Janoff-Bulman, 2010; Rutjens & Loseman, 2010; Thorisdottir & Jost, 2011). These studies are especially valuable because they identify a causal relationship that exists between epistemic motivation and political ideology. At the same time, it is useful to keep in mind that the theoretical model proposed by Jost et al. (2003a, 2003b) implies that both directions of causality are possible. In other words, the argument is really that an “elective affinity” exists (Jost, Federico, & Napier, 2009a), so that the endorsement of conservative ideology, which is relatively simple, direct, and familiar, both reflects and contributes to a psychological state that is concerned with, among other things, the reduction of uncertainty and ambiguity. Conversely, the endorsement of liberal ideology, which is more
complex and—because it tends to be more critical of the status quo—more socially controversial, both reflects and contributes to a psychological state that is more tolerant of uncertainty and ambiguity.

A third conclusion may be derived from the plethora of studies conducted over the past decade on the distinctive personality traits of liberals and conservatives. Most of these studies have made use of the popular “Big Five” taxonomy. Results reveal quite consistently that openness is positively associated with a liberal, left-wing orientation, whereas Conscientiousness (especially the Need for Order facet) is positively associated with conservative, right-wing orientation (e.g., Carney, Jost, Gosling, & Potter, 2008; Gerber, Huber, Doherty, & Dowling, 2010; Hirsh, DeYoung, Xu, & Peterson, 2010; Jost, West, & Gosling, 2009c; Mondak, 2010; Mooney, 2012; Rentfrow, Jost, Gosling, & Potter, 2009). Follow-up research by Xu, Mar, and Peterson (2013) suggests that the relationship between openness and liberalism may be mediated by cultural exposure, insofar as individuals who are relatively high in openness are more likely to read books, articles, and newspapers and to see a greater number and variety of films and videos, and these indicators of cultural exposure are, in turn, associated with a more liberal political orientation.

A fourth and final conclusion suggested by recent work is that ideological differences in epistemic motivation may be even broader and more extensive than the review by Jost et al. (2003a, 2003b) indicated. To begin with, several studies show that liberals score higher than conservatives on the need for cognition (Carraro, Castelli, & Macchiella, 2011; Hennes, Nam, Stern, & Jost, 2012; Sargent, 2004; Stern, West, Jost, & Rule, 2013), which captures the individual’s chronic tendency to enjoy and engage in relatively effortful forms of thinking (see Cacioppo, Petty, & Kao, 1984). Although this finding may not be too surprising, given that scores on the need for cognition are negatively correlated with scores on the need for cognitive closure (Webster & Kruglanski, 1994), it is potentially important because, as we have already noted, individuals who score higher on the need for cognition are more likely to engage in systematic processing, whereas those who score lower are more likely to engage in heuristic processing (e.g., Petty & Cacioppo, 1986). Another link between political ideology and System 1 versus System 2 thinking was suggested by Kemmelmeier (2010), who demonstrated that right-wing authoritarianism was associated with an intuitive thinking style and with heuristic processing of information. Ottati, Price, Wilson, and Kim (2014) observed that liberals scored significantly higher than conservatives on all three of the (content-free) scales that they
developed and validated to measure “open-minded cognition” with respect to general issues, politics, and religion. Finally, the results of an online survey involving over 8600 respondents indicated that a positive, monotonic relationship exists between conservative political orientation and two indicators of socially desirable responding, namely self-deception and impression management (Jost et al., 2010; see Figure 1).

**Figure 1** Monotonic relationship between political ideology and individual differences in self-deception and impression management. Note: This figure is adapted from Jost et al. (2010). Data are based on more than 8600 online respondents who completed a single ideological self-placement item along with Paulhus’ (1984) measure of socially desirable responding, which includes subscales gauging self-deceptive enhancement ($r (8629) = 0.12, p < 0.0001$) and impression management ($r (8747) = 0.07, p < 0.0001$).

4. ARE THERE IDEOLOGICAL ASYMMETRIES IN ATTITUDE STRUCTURE?

In this chapter, then, we are guided by the theoretical notion that political ideology predicts not only what people think but also how they think—that is, the ways in which people generate, understand, and organize their belief systems (see also Jost, 2006). If there are indeed ideological differences in epistemic motivation, as we have suggested, then one would hypothesize that political conservatism would be associated with a greater subjective sense of certainty or conviction, whereas liberalism would be associated with greater attitudinal conflict or ambivalence. On the assumption that ideological differences would affect cognitive-motivational processes in both political and nonpolitical domains, Krochik, Jost, and
Nosek (2007) investigated attitude structure and metacognitive judgments involving an extremely wide range of political and nonpolitical topics. We compared the correspondence between “gut” and “actual” feelings as well as attitudinal certainty, stability, elaboration, ambivalence, and dimensional polarity of self-identified liberals and conservatives—adjusting for quadratic (i.e., symmetrical) effects of ideological extremism—and investigated the role of individual differences in motivational processes, such as openness, need for cognition, and self-deception.

4.1 A Large-Scale Internet Study

Research participants were Internet users who voluntarily accessed the Project Implicit research and demonstration site. To ensure some level of familiarity with the attitude objects presented in the study (many of which were culture-specific), we included only individuals who were either citizens or residents of the United States in our analyses. Many additional respondents were excluded on the basis of incomplete data. The resulting sample size was approximately \( N = 85,000 \) (85,415 participants completed explicit measures, 83,847 completed implicit measures and had valid IAT scores, and 77,923 completed both implicit and explicit measures). Participants were randomly assigned to one of 95 attitude topics or “studies” according to a complex “planned missing” design (see Graham, Taylor, Olchowski, & Cumsille, 2006); the number of participants assigned to each topic ranged from 630 to 1341. Participants could participate in more than one study session, but they could only be assigned to a given topic once. The average number of sessions completed was 1.8, with 65% of participants completing just one. Each session took 12 min to complete.

During an online registration phase, participants placed themselves on a political orientation scale ranging from \(-3\) (strongly liberal) to 3 (strongly conservative). The sample was liberally skewed to some extent, but there were 2459 individuals who identified themselves as “strongly conservative.” To estimate symmetrical (i.e., nondirectional) effects of ideological extremity, we squared each participant’s response (see also Jost et al., 2007), so that the maximum score (9) was ascribed to strongly liberal and strongly conservative individuals alike and lower scores were ascribed to moderate (0), slightly liberal/conservative (1), and somewhat liberal/conservative (4) participants.

We investigated attitudes pertaining to 95 different political and nonpolitical topics, including: education vs. national defense, love vs. money, Yankees vs. Red Sox, management vs. organized labor, cats vs. dogs, Apple vs. Microsoft, freedom vs. security, skirts vs. pants, social programs vs. tax...
reductions, thin people vs. fat people, creationism vs. evolution, and Northerners vs. Southerners. To obtain an explicit attitude measure, we simply asked participants, “Which do you prefer, X or Y?” (1 = strongly prefer X; 7 = strongly prefer Y). We also assessed liking (1 = strongly dislike; 10 = strongly like) and warmth (1 = cold; 10 = warm) toward each attitude object independently.

4.2 Indirect Measure of Attitude Strength: Correspondence between “Gut” and “Actual” Reactions

To begin with, we investigated the effect of political ideology on attitude structure as reflected in the correspondence between participants’ self-reported “gut reactions” to a topic and their “actual feelings” toward the same topic “after having had time to think about it.” Gut and actual feelings were reported with respect to each of the items within the 95 attitude object pairs on 10-point scales ranging from 1 (strongly negative) to 10 (strongly positive). We used the difference in gut feelings toward attitude objects within each pair as a predictor of the corresponding difference in actual feelings, so that positive numbers indicated a relative preference for one object (e.g., X) and negative numbers indicated a relative preference for the other (e.g., Y). Hypotheses were assessed using multilevel modeling.

We observed that (aggregating across the 95 different attitude topics) the correlation between “gut” and “actual” feelings was stronger for conservative vs. liberal participants. This was indicated by a significant interaction effect between ideology and gut feelings on actual feelings (see Table 1). The interaction remained significant even after adjusting for the main effect of ideological extremity and the interaction between extremity and gut feelings, as well as random variation in the moderating effect of ideology on gut-actual correspondence. These results are consistent with the notion that liberals are less likely than conservatives to “go with their gut” in rendering deliberative judgments (see also Stern et al., 2013).

4.3 Metacognitive Indices of Attitude Strength

Krochik et al. (2007) explored the link between political ideology and attitude structure using several meta-cognitive (or subjective) and operative (or indirect) indices of attitude strength. Subjective attitudinal stability was assessed by asking how much participants expected their feelings toward each of the objects in the pair to change over time (1 = not at all, 6 = very much). Subjective certainty was estimated by asking participants how certain they were about each object (1 = not at all certain;
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<td>Interaction effect between ideology and gut feelings on actual feelings, $B = 0.018$, $SE = 0.003$, $t(94) = 8.61$, $p &lt; 0.0001$ (and improvement in fit when the interaction was introduced, $\chi^2 \Delta (1) = 79.4$, $p &lt; 0.001$). The effect remained significant after adjusting for main and interaction effects of ideological extremity, as well as random variation in the moderating effect of ideology on gut-actual correspondence across topics.</td>
<td>Aggregating across 95 different attitude objects, the correspondence between “gut” and “actual” feelings was stronger for conservative vs. liberal participants, even after adjusting for many other factors.</td>
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<tr>
<td>Attitudinal certainty (subjective self-report)</td>
<td>Main effect of ideology, $B = 0.044$, $SE = 0.004$, $t(34,000) = 11.80$, $p &lt; 0.001$ (and improvement in fit compared to baseline model, $\chi^2 \Delta (1) = 3734.2$, $p &lt; 0.001$, and a model that included extremity as the only ideological predictor, $\chi^2 \Delta (1) = 177.2$, $p &lt; 0.001$). The effect of conservatism remained significant, $B = 0.058$, $SE = 0.004$, $t(34,000) = 13.67$,</td>
<td>Aggregating across 95 different attitude objects, conservatives (and ideological extremists in general) reported being more certain than liberals (and moderates).</td>
</tr>
<tr>
<td>Outcome variable</td>
<td>Statistical results</td>
<td>Substantive interpretation</td>
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<td>Attitudinal stability (subjective self-report)</td>
<td>$p &lt; 0.001$, after adjusting for extremity. Extremity was also associated with greater certainty, $B = 0.015$, $SE = 0.002$, $t(34,000) = 6.93$, $p &lt; 0.001$.</td>
<td>Aggregating across 95 different attitude objects, conservatives (and extremists) expected their attitudes to change less over time, in comparison with liberals (and moderates).</td>
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<td></td>
<td>Main effect of ideology, $B = -0.009$, $SE = 0.004$, $t(34,000) = -2.49$, $p &lt; 0.02$ (and improvement in fit compared to baseline model, $\chi^2(1) = 3729$, $p &lt; 0.001$). The effect remained significant and increased in magnitude after adjusting for ideological extremity, $B = -0.036$, $SE = 0.004$, $t(34,000) = -8.64$, $p &lt; 0.0001$.</td>
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<td></td>
<td>The effect of extremity was also significant, $B = -0.031$, $SE = 0.002$, $t(34,000) = -14.06$, $p &lt; 0.0001$.</td>
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</table>
| Attitude elaboration (subjective self-report) | Main effects of ideology, 
\[ B = -0.042, SE = 0.004, \]
\[ t(34,000) = -10.60, p < 0.0001, \]
and extremity, 
\[ B = 0.014, \]
\[ SE = 0.002, t(34,000) = 5.73, \]
\[ p < 0.0001. \] The effect of ideology remained significant after adjusting for extremity, 
\[ B = -0.031, \]
\[ SE = 0.004, t(34,000) = -6.76, \]
\[ p < 0.0001. \] Aggregating across 95 different attitude objects, liberals (and extremists) reported thinking more about their attitudes (i.e., higher frequencies of thoughts) than conservatives (and moderates).
| Attitudinal ambivalence (objective indicator) | Main effect of ideology, 
\[ B = -0.027, SE = 0.006, \]
\[ t(34,000) = -4.87, p < 0.001 \] (and improvement in fit compared to baseline model, \[ \chi^2(D(1) = 4057.2, p < 0.001). \] Main effect of extremity, 
\[ B = 0.013, \]
\[ SE = 0.006, t(34,000) = 5.73, \]
\[ p < 0.001. \] The effect of ideology remained significant after adjusting for extremity, 
\[ B = -0.031, \]
\[ SE = 0.005, t(34,000) = -6.76, \]
\[ p < 0.001. \] Aggregating across 95 different attitude objects, liberals (and extremists) exhibited more ambivalence (positive and negative feelings) than conservatives (and moderates) did.
| Dimensional polarity (subjective self-report) | No main effect of ideology, 
\[ B = -0.005, SE = 0.004, \]
\[ t(34,000) = -1.08, p = 0.28. \] Main effect of extremity, 
\[ B = 0.013, SE = 0.003, \]
\[ t(34,000) = 5.45, p < 0.001. \] Aggregating across 95 different attitude objects, extremists were more likely than moderates to regard the attitude object pairs as opposed. No difference between liberals and conservatives.
<table>
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<tr>
<th>Outcome variable</th>
<th>Statistical results</th>
<th>Substantive interpretation</th>
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<tbody>
<tr>
<td>Implicit—explicit attitude correspondence (objective indicator)</td>
<td>There was significant variability in implicit—explicit correspondence across the 95 different attitude topics, $B = 0.417$, $SE = 0.063$, $Z = 6.63$, $p &lt; 0.0001$. Interaction effect between ideology and implicit attitudes on explicit attitudes, $B = 0.056$, $SE = 0.018$, $t(94) = 3.12$, $p = 0.002$ (and improvement in fit when the interaction was introduced, $\chi^2(1) = 30.6$, $p &lt; 0.001$). The effect remained significant after adjusting for main and interaction effects of extremity, $B = 0.03$, $SE = 0.004$, $t(75,000) = 7.58$, and random variability in the moderating effect of ideology on implicit—explicit correspondence across topics, $B = 0.025$, $SE = 0.004$, $Z = 6.02$, $p &lt; 0.0001$.</td>
<td>Aggregating across 95 different attitude objects, the correspondence between implicit and explicit preferences was stronger for conservative vs. liberal participants, even after adjusting for many other factors (see Figure 4).</td>
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6 = very certain). *Elaboration* or self-reported thought frequency was measured by asking how much participants thought about each of the objects (1 = not at all; 6 = a lot).

Turning now to operative or indirect measures of attitude strength, we conceptualized *ambivalence* as the simultaneous holding of positive and negative evaluations of the same object that are fairly similar in magnitude and at least moderate in intensity—so as to distinguish ambivalence from indifference. Following Thompson, Zanna, and Griffin (1995), we obtained positivity and negativity scores for each of the objects in the pair by asking, “Considering only the positive (negative) things about X (Y) and ignoring the negative (positive) things, how positive (negative) are those things?” We computed an ambivalence score for each object in the pair by (1) taking the sum of the negativity and positivity items for an index of intensity, (2) taking the absolute difference of the negativity and positivity items for an index of similarity, and (3) subtracting the similarity score from the intensity score. We then averaged the two ambivalence scores for each pair.

Dimensional polarity refers to the level of complexity in the structure of the attitude concept (Nosek, 2005). A relatively simple, bipolar structure is implied by conflicting evaluations toward attitude concepts within a given pair/topic (e.g., being strongly in favor of social programs and against tax reductions, or being strongly in favor of thin people and against fat people). By contrast, a more complex, multidimensional structure emerges when evaluations of the two concepts are unrelated (e.g., being strongly in favor of freedom and security or cats and dogs). Insofar as they simplify and organize attitudinal information in an efficient way, bipolar attitudes tend to be more stable and easily recalled (Judd & Kulik, 1980; Nosek, 2005). To assess *dimensional polarity*, we computed the mean of two items (1 = strongly disagree; 6 = strongly agree): “Having positive attitudes toward object X (Y) implies having negative attitudes toward object Y (X).”

Krochik et al. (2007) hypothesized that—aggregating across all 95 attitudinal domains—conservatives would express more subjective certainty and attitudinal stability than liberals, whereas liberals would report more attitudinal elaboration than conservatives. In addition, we hypothesized that conservatives would favor a simpler, more unidimensional attitude structure, whereas liberals would express more attitudinal ambivalence in general. These hypotheses were tested in the context of a multilevel model with random intercepts, so that a separate intercept or average was estimated for each attitude topic (Nosek, 2005; Snijders & Bosker, 1999). This enabled
us to account for the fact that participants (and questionnaire items) were nested within attitude topics.

4.3.1 Ideological Differences in Attitudinal Certainty, Stability, Elaboration, Ambivalence, and Dimensional Polarity

With respect to attitudinal certainty, a main effect of political ideology was observed, such that conservatives reported being more certain than liberals, as hypothesized. Including ideology in the model significantly improved its fit, in comparison with the empty (baseline) model, as well as a model that included extremity as the only ideological predictor (see Table 1). The effect of conservatism remained significant after adjusting for ideological extremity. Compared to participants who described themselves as “very liberal,” people who identified as “very conservative” placed themselves on average one-third of a point higher on the 6-point subjective certainty scale. Ideological extremity was also associated with greater certainty. Less than 5% of the variance in certainty was attributable to the attitude topic.

With regard to subjective attitudinal stability, we observed that conservatives did indeed expect their attitudes to change less over time, in comparison with liberals, as indicated by a significant main effect of political ideology; the model including the linear effect of ideology provided a better fit to the data than the baseline (random intercepts) model (see Table 1). The linear effect remained significant and even increased in magnitude after adjusting for extremism. The effect of extremity was also highly significant. Thus, more conservative and more politically extreme participants expected their attitudes to change less over time than did their more liberal and moderate counterparts.

With respect to attitude elaboration, we observed a significant main effect of political ideology, revealing that liberals reported thinking more about their attitudes than conservatives, as hypothesized. In addition, participants who were ideologically extreme reported thinking about their attitudes more than those in the middle did. The linear effect of ideology remained significant after adjusting for the quadratic effect of extremity (see Table 1). Thus, liberals and extremists reported a higher frequency of thoughts with respect to all 95 attitude objects.

With regard to attitudinal ambivalence, we observed that liberals expressed more ambivalence than conservatives did, as hypothesized. Adding ideology to the baseline (random intercepts) model improved fit (see Table 1). Ideological extremity was associated with greater ambivalence as
The relationship between liberalism and ambivalence remained significant even after taking extremity into account.

Unlike other aspects of attitude structure, political ideology was unrelated to dimensional polarity. Ideological extremity, however, was associated with greater polarity. In other words, extreme participants were more likely than moderates to regard the attitude object pairs as opposed, but there was no tendency for conservatives (vs. liberals) to do so, at least with regard to this particular operationalization of attitude dimensionality (see Table 1).

To summarize the results of our investigation so far, conservatives were more subjectively certain of their attitudes than liberals, expected their attitudes to change less over time, were less ambivalent, and reported thinking less about their attitudes, in comparison with liberals. These findings are highly consistent with the model of political ideology as motivated social cognition (Jost et al., 2003a, 2003b, 2007, 2008). Ideological differences were remarkably robust and domain-general, insofar as they emerged from statistical analyses that aggregated across responses to 95 different attitude topics that were presented to large, almost entirely nonoverlapping samples of liberals, moderates, and conservatives. In addition, we observed that ideological extremists (on the left and the right) exhibited more attitudinal certainty, stability, and dimensional polarity, in comparison with moderates, but also (perhaps surprisingly) more attitude elaboration and more ambivalence.

4.3.2 Self-Deception and Other Mediators of the Relationship between Conservatism and Metacognitive Attitude Strength

To further elucidate the motivational bases of these ideological differences in metacognitive attitude strength, Krochik et al. (2007) conducted additional analyses in which individual differences in openness, need for cognition, and self-deception were treated as possible mediators of the effects of ideology and extremity on certainty, stability, elaboration, ambivalence, and dimensional polarity. These analyses were somewhat exploratory, given that it was impossible to test multiple mediators in the same model due to the planned missing design, whereby each participant completed a different (random) subset of items. Nevertheless, the results are potentially revealing insofar as they highlight a number of ideological differences in epistemic motivation; we mention only the statistically significant results in what follows.

With respect to attitudinal certainty, stability, and ambivalence, there was evidence that self-deceptive enhancement—which was measured using items such as “My first impressions of people usually turn out to be right,”
I am a completely rational person, and I don’t always know the reasons why I do the things I do” (reverse-scored; see Paulhus, 1984)—statistically mediated the effect of conservatism (but not extremism). That is, conservatives scored higher on self-deception (replicating a finding reported by Jost et al., 2010), and self-deception, in turn, was positively associated

Figure 2 Self-deception mediates the effects of political ideology on attitudinal certainty (top), stability (middle), and ambivalence (bottom). Note: Sobel Z tests for mediation were statistically significant in all three cases: 4.08 ($p < 0.001$), 3.95 ($p < 0.001$), and $-2.27$ ($p < 0.05$), respectively from top to bottom.
with self-reported certainty and expectations of stability and negatively associated with attitudinal ambivalence, aggregating across all 95 attitude objects (see Figure 2). In all three cases, the tests for mediation were statistically significant.

Openness, which was measured using the Big Five Inventory described by John and Srivastava (1999), mediated the effects of political ideology and extremity on attitude strength, but in a somewhat complicated, surprising manner. Liberalism and extremity were both associated with increased openness, and increased openness was positively associated with self-reported certainty. These results suggest that increased openness may help to explain why extremists were more certain than moderates—and that conservatives would have been even more certain, relative to liberals, were it not for the latter’s greater openness (see top of Figure 3). Openness also mediated the effect of extremity on dimensional polarity. As noted above, extremists scored higher on openness than did moderates, consistent with Sidanius’ (1985) “context theory” of ideological extremism, and openness

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**Figure 3** Openness suppresses the effect of political conservatism on attitudinal certainty (top) and mediates the effect of extremity on dimensional polarity (bottom). *Note:* Sobel Z tests for mediation were statistically significant in both cases ($p < .05$).
was negatively associated with the tendency to regard attitude pairs as opposites (see bottom of Figure 3).

Like openness, the need for cognition played a subtle role. Replicating prior research (e.g., Carraro et al., 2011; Hennes et al., 2012; Sargent, 2004; Stern et al., 2013), we observed that conservatives scored significantly lower on need for cognition, measured with the use of items developed by Cacioppo et al. (1984). Need for cognition, in turn, was positively associated with attitudinal stability. This may seem like a counterintuitive result, but it is consistent with the observation that people who have engaged in more cognitive elaboration with respect to their attitudes are less likely to change them later (e.g., Petty, Haugtvedt, & Smith, 1995). Our finding suggests that conservatives would have exhibited even more attitudinal stability, relative to liberals, were it not for the latter’s greater need for cognition.

4.4 Ideological Asymmetries in Implicit-Explicit Attitude Correspondence

In psychology, it has become customary to consider two related but distinct types of attitudes, namely implicit and explicit attitudes (e.g., Greenwald & Banaji, 1995). Implicit attitudes, which are often based on mental associations, are activated quickly and spontaneously, and they may or may not be detected by standard self-report measures, whereas explicit attitudes, which are typically more propositional in nature, are characterized by greater elaboration and intention (Gawronski, LeBel, & Peters, 2007). The nature of the relationship (or correspondence) between implicit and explicit attitudes at the level of the individual is an important one, especially insofar as it sheds light on the relationship between intuitive and deliberative processes (e.g., Pelham, Koole, Hardin, Hetts, Seah, & DeHart, 2005), as well as a number of other psychological outcomes, including attitude strength, ideological structure, and behavioral commitment (e.g., Nosek, 2007).

Krochik, Jost, Miller, Schweizer, and Nosek (2010) assessed the relationship between political ideology and correspondence between implicit and explicit attitudes, aggregating across the same 95 attitude objects described above. To measure implicit attitudes, we used a 7-block Implicit Association Test (IAT) to assess preferences for one object over another within each (randomly assigned) object pair. The IAT measures the strength of association between concepts and evaluative attributes (Greenwald, McGhee, & Schwartz, 1998) in terms of the relative speed
Participants first practiced categorizing pictures or words representing each of the paired concepts (e.g., books, television) to the left or right sides of the computer screen (Block 1), then similarly categorized evaluative attributes (e.g., pleasant, unpleasant) to the left and right (Block 2). The critical trials combined concept categories with evaluative attributes, such that participants were instructed to use one key to categorize “books” and positive attributes on the left and another key to categorize “television” and negative attributes on the right (Blocks 3 and 4). Participants practiced categorizing the same concept pair from Block 1 using the opposite keys (Block 5), and then used one key to categorize “television” and pleasant words on the left and another for “books” and unpleasant words on the right (Blocks 6 and 7). Association strength was calculated as the difference in average response latency when categorizing, for example, television and pleasant words together (and books and unpleasant words together) compared to the opposite combination. We divided this difference by a person-specific standard deviation of response time (averaged across all four test blocks) so as to remove variability due to individual differences in speed of responding and followed other processing recommendations made by Greenwald, Nosek, and Banaji (2003).

A series of multilevel models was used to examine the role of political ideology as a moderator of implicit–explicit attitude correspondence. We

Figure 4 Linear and quadratic effects of political ideology on implicit–explicit attitude correspondence. Note: This figure illustrates the pattern of correlations between implicit and explicit attitudes (aggregating across 95 different attitude topics) at each point on a 7-point ideological self-placement scale. Data were presented by Krochik et al. (2010).
treated implicit attitudes (IAT scores) as predictors of explicit (self-reported) preferences, with both variables coded so that positive scores indicated a preference for the object that was preferred (on average) by the sample as a whole. Consistent with prior work by Nosek (2007), we observed significant variability in implicit–explicit correspondence across the 95 different attitude topics. More importantly, political ideology moderated the relationship between implicit and explicit attitudes, as indicated by a significant interaction effect. There was a significant improvement in model fit when the interaction term was introduced (see Table 1). The interaction remained significant after adjusting for the quadratic effect of ideological extremity and its interaction with implicit attitudes, as well as random variability in the moderating effect of ideology on implicit–explicit correspondence across topics. As illustrated in Figure 4, the correspondence between implicit and explicit preferences increased with greater conservatism, consistent with the notion that conservatives are more likely than liberals to base their explicit judgments on implicit associations (or vice versa). Whereas “very liberal” participants exhibited a correlation of 0.4 between implicit and explicit preferences (on average), “very conservative” participants exhibited a notably stronger correlation of approximately 0.55.

5. ARE THERE IDEOLOGICAL ASYMMETRIES IN SUSCEPTIBILITY AND RESISTANCE TO DIFFERENT TYPES OF PERSUASIVE INFLUENCE?

Decades of research on social influence have emphasized two distinct routes to persuasion: the “central” route and the “peripheral” route. According to the Elaboration Likelihood Model, the central route involves influence that takes place as a result of relatively deep processing of information that is high in message relevance, whereas the peripheral route involves influence that takes place as a result of relatively superficial processing of information that is low in message relevance (Petty & Cacioppo, 1986). When the message recipient cares strongly about the issue at hand and is able to marshal the cognitive resources that are necessary to think about it at length (or is dispositionally high in need for cognition), the central route should be relatively more effective than the peripheral route in producing attitude change. Conversely, when the issue is low in terms of personal relevance, or when the cognitive resources of the message recipient are limited (or she/he is low in need for cognition), the peripheral route should produce
greater attitude change (e.g., Cacioppo, Petty, Kao & Rodriguez, 1986; DeBono & Snyder, 1992).

Chaiken (1980) similarly emphasized the role of information processing in persuasion, distinguishing between “systematic” and “heuristic” processing. Systematic processing involves effortful engagement with the content of a message and careful evaluation of the merit or validity of an argument. For example, an individual might analyze the strengths and weaknesses of a message before deciding whether or not it is valid. The central route to persuasion is most effective when the individual processes the content of the message systematically, which requires cognitive resources and high levels of motivation (Chaiken & Maheswaran, 1994). Heuristic processing, on the other hand, involves the use of mental shortcuts to arrive at a conclusion quickly and easily, i.e., without having to engage in effortful, in-depth processing of the message itself. For example, the receiver might infer that a message is valid—and update his or her attitudes accordingly—when the message is delivered by an expert source. The length of a message may also serve as a heuristic cue, providing the message recipient with a way to reach a conclusion without having to evaluate the quality of the message itself (Chaiken, 1980). Thus, the peripheral route to persuasion is most successful when the recipient of the message engages in heuristic processing, that is, when he or she attends to message-irrelevant cues in order to arrive at a conclusion more rapidly.

5.1 Ideological Differences in Heuristic versus Systematic Processing

Insofar as liberals tend to score more highly than conservatives on the need for cognition scale (e.g., Carraro et al., 2011; Hennes et al., 2012; Krochik et al., 2007; Sargent, 2004; Stern et al., 2013), we hypothesized that they would also be more likely to process persuasive messages systematically and to be influenced by central (rather than peripheral) cues, such as argument quality (cf. Chaiken & Maheswaran, 1994). Similarly, given that conservatives score higher than liberals on the need for cognitive closure scale (e.g., Federico & Goren, 2009; Jost et al., 2003a, 2003b; Kemmelmeier, 1997, 2010), we hypothesized that they would be more likely to process persuasive messages heuristically and to be influenced by peripheral (rather than central) cues, such as source similarity. These possibilities were investigated in a series of experiments conducted by Miller, Krochik, and Jost (2009) and Schweizer, Krochik, and Jost (2011).
Using a Facebook advertisement, Miller et al. (2009) recruited 108 young adults from around the United States to participate in an online study. Of the total sample, 56 were undergraduates at the time, 24 had recently earned their bachelors’ degrees, and 22 were graduate students. These participants were exposed to either strong or weak arguments in favor of unpopular (i.e., counter-attitudinal) conclusions, namely the implementation of (1) mandatory comprehensive examinations for college seniors (Petty & Cacioppo, 1986), and (2) tuition increases in universities (Darke & Chaiken, 2005). More specifically, they read and evaluated five arguments that had been classified on the basis of previous research as either strong (e.g., universities require additional revenue to upgrade classroom technology and improve computer labs) or weak (e.g., universities require additional revenue to beautify their campuses). Participants rated the strength and persuasiveness of each argument (as well as the set of arguments as a whole) using 6-point scales ranging from 1 (Not at all) to 6 (Very). At the end of the experiment, participants completed demographic information, including items concerning their own political orientation. Because we observed more variability in economic (as compared with general or social) attitudes (and a less skewed ideological distribution overall), we focused on economic liberalism–conservatism, comparing the responses of the 54 most economically liberal participants to those of the 54 most economically conservative participants.

To investigate the hypothesis that liberals would engage in systematic processing to a greater extent than conservatives, we conducted an Analysis of Variance (ANOVA) in which participant ideology (economic liberal vs. economic conservative) was crossed with argument quality (strong vs. weak), and message topic (comprehensive exams vs. tuition increase). The analysis yielded a significant main effect of argument quality on participants’ ratings of argument strength and, more importantly, a significant interaction between argument quality and participant ideology. To interpret the interaction, we conducted Tukey HSD post hoc tests, combining responses to the two discussion topics. As illustrated in Figure 5 (top), economic liberals were attentive to argument quality, whereas economic conservatives were not. More specifically, liberals rated the arguments that

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1 Exploratory analyses suggested that, prior to being exposed to any of the persuasive arguments, liberals were slightly more opposed to comprehensive exams, whereas conservatives were slightly more opposed to tuition increases. Thus, it is noteworthy that we obtained parallel results for the two issue topics.
had been classified on the basis of prior research as “strong” as significantly stronger, in comparison with arguments that had been classified as “weak.” By contrast, conservatives did not distinguish between “strong” and “weak” arguments. A similar pattern was observed with respect to ratings of persuasiveness. As illustrated in Figure 5 (bottom), economic liberals perceived the
stronger arguments to be marginally more persuasive than the weaker arguments. At the same time, economic conservatives did not differentiate between strong and weak arguments in terms of persuasiveness. Given past research on the elaboration likelihood and heuristic-systematic models of persuasion, these results suggest that liberals engaged in systematic processing and attended to central message cues, whereas conservatives did not.

To investigate the possibility that liberals and conservatives would differ in the extent to which they processed information heuristically (as well as systematically) by attending to peripheral (as well as central) cues when processing persuasive communications, Miller et al. (2009) conducted a follow-up experiment involving 64 students enrolled in an Introductory Psychology course at NYU. In an effort to obtain an ideologically diverse (and divergent) sample, we specifically recruited students who scored in the top and bottom quartiles with respect to economic liberalism–conservatism (and excluded from analysis participants who scored in the middle range).

We manipulated a peripheral cue that we anticipated on the basis of prior work would be influential to those who are especially motivated to attain certainty and closure, namely source similarity (see Kruglanski, Pierro, Mannetti, & De Grada, 2006; Lun, Sinclair, Whitchurch, & Glenn, 2007). In our experiment, each participant was led to believe that he or she would interact with another NYU student who in the similarity condition was represented as sharing a birthday and home state with him or her. (We obtained information about students’ birthdays and home states surreptitiously in a mass-testing session held at least 4 weeks prior to the experimental session). In the control condition, students were provided generic information about their interaction partner’s birthday and home state. This manipulation was chosen because sharing a birthday has been found to induce strong feelings of similarity in the absence of providing information about shared beliefs, values, or interests (Miller, Downs, & Prentice, 1998). A manipulation check confirmed that participants in the high-similarity condition did, in fact, feel more similar to their interaction partner than those in the low-similarity condition.

To measure attitude change, we solicited participants’ opinions about a number of issues—including the question of whether tuition should be raised at NYU—at the beginning of the experimental session and again at the end of the session (using an 8-point scale ranging from “strongly oppose” to “strongly support”). Between these two time points, students watched a short video of the person whom they believed would be their interaction partner (but who was, in reality, one of two student actors hired to be experimental confederates). The person in the video delivered either four strong
or four weak arguments in favor of increasing tuition at NYU (i.e., a subset of arguments used in the preceding study, which were modified slightly to convey a natural speaking style).

We hypothesized that conservatives would shift their attitudes more in the direction of a persuasive communication when a similarity cue about the source was present vs. absent. Given the results of our previous experiment, we did not expect conservatives to change their attitudes as a function of argument strength. At the same time, we hypothesized that liberals would shift their attitudes more when the quality of argumentation was strong, rather than weak. We did not expect liberals to change their attitudes more as a function of perceived similarity.

To investigate these hypotheses, we conducted an ANOVA in which participant ideology (economic liberal vs. economic conservative) was crossed with argument quality (strong vs. weak) and source similarity

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**Figure 6** Mean persuasion (attitude change) in favor of increasing tuition at NYU as a function of participant ideology, argument strength, and source similarity. Note: This figure is adapted from Miller et al. (2009), Study 2. A manipulation check confirmed that participants in the similarity condition did feel more similar to their interaction partner \( (M = 5.24, SD = 1.29) \) than those in the nonsimilarity condition \( (M = 4.26, SD = 1.39) \), \( t (62) = 3.54, p < 0.01 \). Analysis of variance yielded a significant interaction between ideology and source similarity, \( F (1, 48) = 5.12, p < 0.03 \). Conservatives in the similarity condition exhibited more attitude change in favor of the message \( (M = 1.67, SD = 1.67) \) than conservatives in the nonsimilarity condition \( (M = 0.09, SD = 1.64) \), \( F (1,27) = 5.20, p < 0.04 \). Conservatives were no more likely to be persuaded by strong \( (M = 1.00, SD = 2.06) \) than weak arguments \( (M = 0.78, SD = 1.39) \), \( F (1, 21) = 0.08, p = 0.78 \). Liberals were marginally more persuaded by strong \( (M = 1.36, SD = 1.22) \) than weak arguments \( (M = 0.67, SD = 0.82) \), \( F (1, 27) = 3.27, p = 0.08 \), but they were unaffected by the source similarity cue.
The dependent variable was attitude change, that is, the degree of support for a tuition increase at time 2 minus time 1. The analysis yielded a significant interaction between political ideology and source similarity. As illustrated in Figure 6, economic conservatives who were led to believe that their interaction partner shared a birthday and/or home state exhibited more attitude change in favor of the message than did economic conservatives who were assigned to the low-similarity condition. Conservatives were no more likely to be persuaded by strong than weak arguments. Economic liberals, by contrast, were marginally more persuaded by strong (vs. weak) arguments, but they were unaffected by the similarity cue.

These two experiments by Miller et al. (2009) suggested that liberals were more likely than conservatives to process persuasive information systematically and to be sensitive to central cues such as argument strength. By the same token, conservatives were more likely than liberals to process information heuristically and to respond to peripheral cues such as source similarity. To our knowledge, these are the first studies to directly investigate ideological asymmetries in susceptibility to persuasion through the central vs. peripheral route. These asymmetries, it should be noted, are highly consistent with ideological differences in specific types of epistemic motivation documented in previous research, such as need for cognition and need for cognitive closure (e.g., see Jost et al., 2003a, 2003b, 2007, 2009a, 2009b). Finally, it is worth emphasizing that liberals and conservatives appeared to process information quite differently, despite the fact that the message topic itself was not overtly political.

5.2 Ideological Differences in Susceptibility to Implicit vs. Explicit Forms of Attitude Change

We have suggested throughout this article that rational vs. intuitive appeals may be differentially effective for individuals who vary in the extent to which they are motivated to scrutinize information systematically—as opposed to processing it heuristically and trusting in “gut reactions.” An especially pertinent distinction was proposed by Gawronski and Bodenhausen (2006), who contrasted attitude change processes that are quick and intuitive (and operate through implicit, associative processes) with those that are deliberate and effortful (and operate through explicit, propositional processes). Importantly, these authors stressed that implicit and explicit attitude processes can influence one another under certain circumstances. Implicit associations, in this view, are akin to heuristic cues or “gut feelings” (Gawronski et al., 2007), which may be weighted more or
less heavily when it comes to constructing and expressing explicit attitudes, depending upon a number of factors, including the ability and motivation to consider and incorporate multiple, potentially conflicting pieces of information (Chaiken, Wood, & Eagly, 1996; Gawronski & Bodenhausen, 2006).

Given ideological differences in epistemic motivation such as need for cognition and need for cognitive closure, we hypothesized that conservatives would be more likely than liberals to rely on implicit, heuristic cues to inform their explicit evaluations of (nonpolitical) attitude objects. More specifically, we predicted that an attempt to change attitudes at an implicit level (with the use of an evaluative conditioning procedure) would be more likely to produce explicit attitude change for conservatives than liberals. On the other hand, we expected that explicit attitude change attempts (e.g., the presentation of strong arguments in favor of a given position) would be more successful with liberals than conservatives.

To investigate these ideas, Schweizer et al. (2011) conducted a study of ideological differences in susceptibility to different types of social influence strategies—namely the presentation of rational, explicitly presented arguments, as compared with a more surreptitious attempt to manipulate implicit associations. Participants were 63 NYU students who were paid $10 to participate. They were recruited through flyers, listserv announcements, and face-to-face solicitations on campus. Upon arrival at the laboratory, participants were informed that the purpose of the study was to “assess their thoughts and preferences toward a variety of food and beverage items.” They first answered a series of questions on the computer that assessed, among other things, their explicit attitudes toward coffee and tea; the same items were administered again at the end of the experiment, so that we could measure attitude change. Participants also completed a short IAT adapted from research by Gregg, Seibt, and Banaji (2006) in which they were shown images related to coffee and tea and asked to categorize these while also categorizing words that were either healthy or unhealthy (e.g., “robust,” “hardy,” “illness,” and “diseased”).

Next, participants were exposed to either an implicit or explicit social influence attempt. The former made use of a modified evaluative conditioning technique that aimed to manipulate implicit preferences for coffee vs. tea (cf. Payne, Cheng, Govorun, & Stewart, 2005; Rydell, McConnell, Mackie, & Strain, 2006). More specifically, affectively laden primes were used to strengthen positive associations with coffee (or tea) and negative associations with tea (or coffee, counterbalanced). For instance, a participant might be exposed to positive healthy images (e.g., a man running on a beach)
Figure 7 Attitude change in liking for coffee (top) and tea (bottom) as a function of political ideology and implicit versus explicit persuasion type for participants assigned to the coffee-positive, tea-negative conditions and tea-positive, coffee-negative conditions, respectively. Note: This figure is adapted from Schweizer et al. (2011). For participants who were exposed to pro-coffee/anti-tea messages, analysis of variance yielded an interaction effect, $F(1, 25) = 4.61$, $p = 0.04$, such that conservatives exhibited (marginally) greater liking for coffee following exposure to implicit (vs. explicit) persuasion, $t(17) = 1.48$, $p = 0.08$, whereas liberals exhibited greater liking for coffee following
Immediately followed by images of coffee beans as well as negative unhealthy images (e.g., an old man in a hospital bed) followed by images of teabags. In the explicit influence condition, participants instead read a report attributed to the Food and Drug Administration; it included strong arguments (based on scientific research) for the health benefits of drinking coffee as opposed to tea (or vice versa).

For participants who were exposed to pro-coffee/anti-tea messages, an ANOVA in which participant ideology (economic liberal vs. economic conservative) was crossed with type of influence attempt (implicit vs. explicit) yielded the hypothesized interaction effect on attitude change with respect to coffee. As illustrated in the top of Figure 7, economic conservatives exhibited (marginally) greater liking for coffee following exposure to implicit (vs. explicit) persuasion, whereas economic liberals exhibited greater liking for coffee following exposure to explicit (vs. implicit) persuasion. In the implicit persuasion condition, conservatives exhibited more pro-coffee attitude change than did liberals. In the explicit persuasion condition, there was a trend for liberals to exhibit more attitude change than conservatives, but this difference was nonsignificant.

For participants who were exposed to pro-tea/anti-coffee messages, the trends with respect to change in attitudes toward tea were consistent with our expectations, but the interaction between political ideology and persuasion type did not quite attain significance. Conservatives exhibited a stronger increase in liking for tea following an implicit (vs. explicit) persuasion attempt, whereas liberals exhibited a (nonsignificantly) stronger increase in liking for tea following an explicit (vs. implicit) persuasion attempt. The pattern of means is illustrated in the bottom of Figure 7.

In summary, when we exposed participants to messages suggesting that the health benefits of coffee were superior to those of tea, conservatives resisted persuasion when the information was presented explicitly but not exposure to explicit (vs. implicit) persuasion, $t(11) = -1.80, p = 0.05$. In the implicit persuasion condition, conservatives exhibited more pro-coffee attitude change than did liberals, $t(14) = -1.97, p = 0.04$. In the explicit persuasion condition, there was a nonsignificant trend for liberals to exhibit more attitude change than conservatives. For participants who were exposed to pro-tea/anti-coffee messages, the interaction between ideology and persuasion type did not attain significance, $F(1, 25) = 2.73, p = 0.11$. Nevertheless, conservatives did exhibit a stronger increase in liking for tea following an implicit (vs. explicit) persuasion attempt, $t(12) = 1.73, p = 0.05$, whereas liberals exhibited a (nonsignificantly) stronger increase in liking for tea following an explicit (vs. implicit) persuasion attempt.
when it was presented implicitly. On the other hand, liberals were susceptible to explicit persuasion but not implicit persuasion. Furthermore, conservatives showed greater attitude change than liberals following exposure to an implicit persuasion attempt, whereas liberals showed greater attitude change than conservatives following exposure to an explicit persuasion attempt. In general, findings from this experiment suggested that differences in the epistemic motives of liberals and conservatives have implications for susceptibility to implicit vs. explicit forms of persuasion.

These results are consistent with the notion that conservatives, who are more strongly motivated than liberals by epistemic needs for certainty, order, structure, and closure, may have used their (experimentally manipulated) implicit attitudes—or “gut feelings”—as heuristic cues to inform their explicit attitudes. This pattern of implicit-to-explicit processing may also help to explain why, as we showed earlier, conservatives exhibit stronger implicit–explicit attitude consistency than liberals (see Figure 4). By contrast, liberals may be less inclined to “go with their gut” in rendering explicit judgments (see also Stern et al., 2013).

In the experiment by Schweizer et al. (2011), liberals were more likely to change their attitudes following explicit exposure to strong persuasive arguments about the alleged health benefits of coffee (vs. tea). This change could be understood in terms of liberals’ greater openness to scientific evidence—even if that evidence contradicts previously held attitudes (cf. Mooney, 2012)—as well as a stronger motivation to process information systematically and to engage in integrative complexity (Jost et al., 2003a, 2003b). The fact that liberals’ explicit attitudes were unmovd by exposure to evaluative conditioning suggests that they may place less weight on implicit, gut-level attitudes as valid sources of information when formulating explicit evaluations. This, in turn, would also contribute to lower levels of implicit–explicit attitude consistency (Krochik et al., 2010).

6. ARE THERE IDEOLOGICAL ASYMMETRIES IN RELIANCE ON STEREOTYPICAL CUES?

Stern et al. (2013) theorized that ideological differences in epistemic motivation, such as the need for cognition, could lead conservatives to rely more on stereotypical cues, in comparison with liberals, especially when making judgments about perceptually ambiguous social groups (such as gay men). In an initial study, the researchers demonstrated that
conservatives were indeed more likely than liberals to use gender-inversion cues to categorize male faces as gay vs. straight under typical (i.e., unconstrained) circumstances. In other words, liberals were less likely than conservatives to assume that men with stereotypically feminine facial features—such as long eyelashes, high cheekbones, and slender faces—were gay. Measures of reaction time suggested that liberals took longer to classify targets as gay or straight, suggesting that they may have been thinking more deeply about their judgments, in comparison with conservatives.

Given prior work suggesting that liberals may be more likely than conservatives to engage in a secondary process of “stereotype correction” (Skitka et al., 2002; see also Gilbert & Osborne, 1989), we hypothesized that a cognitive load manipulation would eliminate ideological differences in reliance on stereotypical cues. That is, the effect of ideology should disappear when effortful processing was disrupted, because liberals under cognitive load would be unable to engage in a secondary process of stereotype correction. This is indeed what we found. In the control condition, conservatives were again more likely to classify a male target as gay to the extent that he possessed feminine features, whereas liberals were not. Under conditions of cognitive load (or “cognitive busyness”), however, liberals apparently failed to adjust their intuitive or spontaneous reactions and, like conservatives, relied upon gender-inversion cues to make sexual orientation judgments.

A third and final study conducted by Stern et al. (2013) addressed the question of why liberals would be more likely than conservatives to engage in a secondary process of stereotype correction when making sexual orientation judgments. The results of their investigation suggested that neither the holding of prejudicial attitudes toward gay men nor the extent of social contact with gay men mediated the effect of political ideology on the belief that gender-inversion cues are valid indicators of sexual orientation—although liberals (as anticipated) reported more positivity about and more extensive social contact with gay men, in comparison with conservatives. What did mediate the effect of ideology on the endorsement of physical appearance stereotypes about gay men was the need for cognition. More specifically, liberals were less likely than conservatives to believe that gender-inversion stereotypes were valid cues about sexual orientation, and this difference in stereotyping was partially mediated (or explained) by liberals’ greater need for cognition (see Figure 8). Taken as a whole, the results of this research program suggest that (1) at a heuristic (or automatic) level, liberals and conservatives share many of the same stereotypical associations that link feminine
facial features to gay men, insofar as their judgments are indistinguishable under cognitive load, but (2) when cognitive resources are available, liberals are more likely than conservatives to engage in a deliberate, effortful process of stereotype correction and to discount gender inversion cues when rendering sexual orientation judgments, and (3) liberals are more likely than conservatives to engage in stereotype correction and to discount stereotypical cues at least in part because of ideological differences in epistemic motivation, in this case, their greater need for cognition.

Krosch, Berntsen, Amodio, Jost, and Van Bavel (2013) observed yet another ideological asymmetry, in this case, one that pertains to reliance on the principle of “hypodescent” in racial categorization, which implies that multiracial individuals are categorized according to their most socially subordinated group membership. Specifically, we observed that conservatives exhibited a lower threshold for classifying ambiguous (i.e., mixed race) faces as “black,” in comparison with liberals. In the case of racial categorization, however, the effect of political orientation on stereotyping was not mediated by epistemic motivation (measured in this instance in terms of individual differences in the personal need for structure). Instead, it was mediated by more explicitly ideological motives, such as opposition to equality and system justification (e.g., see Jost & Thompson, 2000). There are a number of methodological differences between the studies carried out by Stern et al. (2013) and Krosch et al. (2013), and so direct comparisons between the two research programs are impossible. Nevertheless, their juxtaposition suggests a nonobvious hypothesis to be considered in future

Figure 8 Need for cognition mediated the effect of political ideology on the endorsement of stereotypes concerning gay men. Note: This figure is adapted from Stern et al. (2013), Study 3. Values reported are standardized coefficients based on a statistical model in which attitudes toward gay men and social contact with gay men are included as covariates. Values in parentheses represent direct relationships; values without parentheses represent relationships once all variables are included in the model. *p < 0.05, **p < 0.01, ***p < 0.001.
research, namely that liberal–conservative differences in racial attitudes may be more ideologically laden (at this point in time) than attitudes concerning sexual orientation, which may be more linked to epistemic (than ideological) forms of motivation.

Returning to the context of stereotypes about sexual orientation, Stern, West, Jost, and Rule (2014a) pointed out that not only do conservatives express stronger epistemic motives to achieve order, stability, certainty, and closure (e.g., Jost et al., 2003a, 2003b), but they also express stronger relational motives to achieve loyalty, conformity, and group cohesion (e.g., Feldman, 2003), in comparison with liberals. Drawing on shared reality theory, which suggests that epistemic and relational motives are sharply intertwined (Hardin & Higgins, 1996), Stern and colleagues hypothesized that conservatives would possess a stronger desire than liberals to “share reality” with like-minded others and would therefore perceive more in-group consensus with respect to political and nonpolitical judgments. To investigate these possibilities, we presented liberal and conservative research participants with a series of faces and asked them to make judgments about the sexual orientation and birth month of each target person; afterward, we asked them to estimate the “percent of participants who share your political beliefs [who] made similar judgments as you did.”

Consistent with Stern et al.’s (2013) observation that conservatives were more likely than liberals to rely on gender-inversion cues when making sexual orientation judgments, we found that conservatives did indeed exhibit more consensus than liberals when rendering judgments of sexual orientation—but not birth month (or, in a subsequent study, food preferences). Regardless of whether consensus actually existed, conservatives tended to perceive greater consensus among in-group members (i.e., fellow conservatives) than did liberals, although they did not perceive greater consensus among out-group members or among participants overall. Importantly, the desire to share reality—measured with the use of questionnaire items such as “How important is it that you see the world in a similar way as people who generally share your beliefs do?”—partially mediated the effect of political ideology on perceptions of consensus within the group.

In a follow-up experiment, Stern, West, Jost et al. (2014a) demonstrated that by either attenuating conservatives’ motivation or strengthening liberals’ motivation to share reality, it was possible to reduce ideological differences in perceptions of in-group consensus. This study also highlighted one potential benefit of conservatives’ greater tendency to assume consensus within their ranks (or a potential disadvantage of liberals’ greater tendency
to assume uniqueness, see also Stern, West, & Schmitt, 2014b). Specifically, we observed that individuals who perceived more in-group consensus also regarded their political party as being more efficacious (i.e., capable of achieving collective goals), and this, in turn, was positively associated with behavioral intentions to vote during the next election cycle. In other words, there may well be concrete political advantages associated with even exaggerated perceptions of group consensus when it comes to stereotypes and other social judgments.

7. CONCLUDING REMARKS

For several decades, psychologists and political scientists have bombarded one another with evidence of bias, error, ignorance, irrationality, and motivated reasoning on the part of ordinary individuals (e.g., see Ditto & Lopez, 1992; Gilovich, 1991; Kahneman, 2013; Lau & Redlawsk, 2006; Nisbett & Ross, 1980; Taber & Lodge, 2006). More than one author has taken it as axiomatic that people are poorly informed democratic citizens and masters of self-deception who are constitutionally incapable of objectivity, especially when it comes to matters of social, moral, or political controversy (e.g., Haidt, 2012; Shermer, 2011). Very few—other than Gigerenzer (2008)—have taken it upon themselves to defend the epistemic virtues of the mass public.

When it comes to political psychology, there is plenty of reason to think that partisanship leads most people astray—at least some of the time (e.g., Bartels, 2002; Bullock, 2011; Cohen, 2003; Jost et al., 2013; Knowles & Ditto, 2012). Nevertheless, there is mounting evidence that some people are better than others (for situational as well as dispositional reasons) when it comes to seeking out, processing, and weighing potentially conflicting pieces of evidence to draw conclusions that are reasonably accurate, even if they may be closer to satisfactory than optimal from the standpoint of rationality (e.g., Chen et al., 1996; Etzioni, 2014; Gigerenzer, 2008; Klein & Webster, 2000; Mooney, 2012; Petty & Cacioppo, 1986; Stanovich et al., 2011). When ideology comes into play, the suspicion is rampant—perhaps understandably so—that bias and motivated reasoning are afoot (e.g., Kahan, 2013). Nevertheless, the research literature as a whole provides considerable food for thought to anyone who assumes that information processing deficiencies are distributed in a perfectly even fashion across the political spectrum (Mooney, 2012). Put another way, there seem to be left–right (or
liberal–conservative) ideological asymmetries—as well as symmetries—when it comes to motivated reasoning processes and the endorsement of false beliefs (Jost et al., 2013).

In this article, we have described a number of ideological asymmetries and sought to connect them to a theory of political ideology as motivated social cognition (Jost et al., 2003a, 2003b) as well as dual process models of persuasion and information processing (e.g., Chaiken et al., 1996; Gawronski & Bodenhausen, 2006; Kahneman, 2013; Kemmelmeier, 2010; Petty & Cacioppo, 1986). Our focus has been on the delineation of liberal–conservative differences with respect to various types of epistemic motivation and their myriad consequences for, among other things, attitude structure, depth of information processing, susceptibility to persuasion, and stereotyping behavior. We have summarized the methods and results of a number of independent but conceptually related research programs. Indeed, we plead guilty—with an explanation—of having bombarded readers with an abundance of evidence, including previously unpublished evidence, for our point of view. The explanation comes in two parts.

First, we assume that most readers come to our piece with strong assumptions about human nature (in general) and the power of situational pressures (in particular) to shape motivation and cognition (as well as motivated cognition). Thus, in line with studies by Lord et al. (1979), Ditto and Lopez (1992), Cohen (2003), and Kahan (2013), among many others, we expect that the current consensus in social psychology favors the hypothesis that there are ideological symmetries in bias and self-deception over the hypothesis that there are ideological asymmetries. However, there is really no reason to pit these hypotheses against each other, insofar as they could both be valid (see also Jost et al., 2013). Just as there are linear effects of political conservatism and quadratic effects of ideological extremism present in combination when it comes to cognitive rigidity (Jost et al., 2003b) and implicit–explicit attitude correspondence (see Figure 4 above), there are probably ways in which liberals and conservatives are equally prone to deficiencies in reasoning and other ways in which conservatives may be more prone to intuitive, heuristic-driven approaches that—in some cases at least—may lead them astray.

The second reason for bombarding readers with data is more personal. It is that the second author of this piece had planned to write a dissertation and to publish several research articles on this general topic. Unfortunately, cancer intervened. By dint of circumstance, this article represents the most
definitive statement of the perspective we sought to develop together as well as a summary, in some sense, of her life’s work in this area.

So, what, exactly, did we find? In one line of work, we discovered that political ideology was related to metacognitive attitude strength—that is, subjective attitudinal certainty, stability, ambivalence, and elaboration—with respect to 95 different topics in both political and nonpolitical domains. That is, conservatives reported greater certainty and more stability over time with regard to their attitudes in general, whereas liberals reported greater ambivalence and more time thinking about their attitudes (Krochik et al., 2007).

Ideology was also related to attitude structure. Conservatives exhibited stronger consistency or correspondence between their “gut feelings” and “actual feelings” as well as between implicit and explicit attitudes, in comparison with liberals (Krochik, Jost, Miller, Schweizer, & Nosek, 2010). These findings, at least, suggest that differences between liberals and conservatives may extend well beyond self-perceptions (or political self-stereotypes), insofar as participants could not have known how much gut–actual or implicit–explicit attitude correspondence would be expressed or exhibited by their fellow ideologues or their ideological adversaries.

We have also found that, in addition to previously noted differences pertaining to needs for order, structure, and closure, liberals score higher than conservatives on need for cognition and open-mindedness, whereas conservatives score higher than liberals on intuitive thinking and self-deception. These differences helped to explain why conservatives reported greater certainty and stability in general and why liberals reported greater ambivalence and more self-reported thinking (Krochik et al., 2007).

We have summarized studies indicating that liberals were more likely to process information systematically and attend to differences in argument quality, whereas conservatives were more likely to process information heuristically and attend to peripheral (message-irrelevant) cues such as source similarity (Miller et al., 2009). In another program of research, we demonstrated that conservatives were more susceptible than liberals to an implicit persuasion attempt involving an evaluative conditioning procedure, whereas liberals were more susceptible than conservatives to explicit persuasion attempts involving rational appeals to scientific evidence (Schweizer et al., 2011).

Finally, we have shown that ideological differences in epistemic motivation—such as the need for cognition and the need to share reality—can help
to explain differences in stereotyping and group behavior. More specifically, we find that liberals’ greater need for cognition leads them to rely less on physical appearance cues in the context of rendering judgments about sexual orientation—unless they are under cognitive load and therefore, unable to engage in an effortful process of stereotype correction (Stern et al., 2013). Conservatives greater need to share reality with like-minded others leads them to perceive more consensus within their group, to feel a stronger sense of collective efficacy, and to be more committed to the attainment of group goals (Stern et al., 2014a).

It seems to us that there is by now a long list of psychological differences between liberals and conservatives to be reckoned with (see also Hibbing et al., 2014; Jost & Amodio, 2012; Jost et al., 2003a, 2003b, 2007, 2009a, 2009b, 2009c; Kandler et al., 2012; Mooney, 2012; Young, 2009). The only question about which we must remain silent, for the time being at least, is how longstanding these differences are. It is conceivable that ideological differences in openness, self-deception, and other forms of epistemic motivation are to a large extent historically constituted (Gergen, 1973), in the sense that they may reflect the current state of Western politics and left–right positioning in the early twenty-first century. Another possibility, which is by no means wholly incompatible with the historical perspective, is that there are “elective affinities” between certain types of social and psychological needs, interests, values, and motivations, one hand, and specific ideological forms or manifestestations, on the other (Jost et al., 2009a). The latter perspective would suggest that, all other things being equal, social and political history would have a tendency to repeat itself. It may be especially useful for understanding why, for instance, Adorno et al.’s (1950) analysis of the relationship between conservatism and authoritarianism (including their discussion of right–wing radio personalities) remains shockingly insightful and relevant nearly 70 years later (see also Dean, 2006; Hennes et al., 2012; Jost, 2006).

In any case, these myriad differences in epistemic motivation (and their behavioral consequences) may help to explain why liberals and conservatives in politics so often fail to agree even on what the problem is, let alone what the solution should be. When there are conflicts of personality, cognitive style, and motivational priority, these can only exacerbate disagreements over policy outcomes (see also Krochik & Jost, 2011). Future research would do well to investigate more directly the role of psychological factors in causing or perpetuating ideological conflict, polarization, and gridlock when it comes to addressing complex social problems associated with
economic inequality, climate change, and foreign policy. Indeed, a sophisticated understanding of these psychological factors is a prerequisite to designing and implementing interventions that would minimize task-irrelevant conflict, so that politicians can focus more squarely on addressing and, one can only hope, overcoming task-relevant conflict to arrive at lasting and meaningful solutions to the very real problems we face.

REFERENCES


