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Presidential Address

Ideological Asymmetries and the Essence of Political Psychology

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Individuals are not merely passive vessels of whatever beliefs and opinions they have been exposed to; rather, they are attracted to belief systems that resonate with their own psychological needs and interests, including epistemic, existential, and relational needs to attain certainty, security, and social belongingness. Jost, Glaser, Kruglanski, and Sulloway (2003) demonstrated that needs to manage uncertainty and threat were associated with core values of political conservatism, namely respect for tradition and acceptance of inequality. Since 2003 there have been far more studies on the psychology of left-right ideology than in the preceding half century, and their empirical yield helps to address lingering questions and criticisms. We have identified 181 studies of epistemic motivation (involving 130,000 individual participants) and nearly 100 studies of existential motivation (involving 360,000 participants). These databases, which are much larger and more heterogeneous than those used in previous meta-analyses, confirm that significant ideological asymmetries exist with respect to dogmatism, cognitive/perceptual rigidity, personal needs for order/structure/closure, integrative complexity, tolerance of ambiguity/uncertainty, need for cognition, cognitive reflection, self-deception, and subjective perceptions of threat. Exposure to objectively threatening circumstances—such as terrorist attacks, governmental warnings, and shifts in racial demography—contribute to modest "conservative shifts" in public opinion. There are also ideological asymmetries in relational motivation, including the desire to share reality, perceptions of within-group consensus, collective self-efficacy, homogeneity of social networks, and the tendency to trust the government more when one's own political party is in power. Although some object to the very notion that there are meaningful psychological differences between leftists and rightists, the identification of "elective affinities" between cognitive-motivational processes and contents of specific belief systems is essential to the study of political psychology. Political psychologists may contribute to the development of a good society not by downplaying ideological differences or advocating "Swiss-style neutrality" when it comes to human values, but by investigating such phenomena critically, even—or perhaps especially—when there is pressure in society to view them uncritically.

KEY WORDS: liberalism, conservatism, political ideology, motivated social cognition

"We are face to face with an economic and international problem which we presume to solve by political and national means ... The difficulties reside not in the things as they are but in our conception of them; they are not material but psychological." (Delaisi, 1927, pp. 416–417)

"The assumption that the parties are more or less interchangeable in their composition, objectives, and behavior must be discarded in order to properly understand the most important attributes of contemporary politics..."

(Grossmann & Hopkins, 2016, p. 13).

In 2014, over 200,000 readers of *Time* magazine answered an online quiz that was composed of 12 nonpolitical items that purported to diagnose one's political orientation. Items included: "I prefer cats to dogs" and "I prefer watching documentaries to action and adventure movies." These items, it turns out, are correlated—at least weakly—with self-reported political orientation as "liberal" or "conservative." Unfortunately, the items for the quiz were selected purely because they happen to correlate with political orientation, not for any theoretically coherent reason. Although it was heartening to discover that 200,000 people wanted to know about the connections between personality and political orientation, I was concerned—as a political psychologist—that media gimmicks risk trivializing political ideology as a quirky curiosity rather than a meaningful part of life that is both psychological and political and that can be understood in scholarly or scientific terms.

Like most, if not all, members of the International Society of Political Psychology (ISPP), I believe that political ideology can—and should—be understood in social scientific terms. Indeed, this has been one of the essential goals of political psychologists since the 1940s and 1950s (e.g., Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950; Allport, 1954; Kelman, 1958; Lane, 1962; Smith, Bruner, & White, 1956). The authors of *The Authoritarian Personality* put it memorably: "Ideologies have for different individuals, different degrees of appeal, a matter that depends upon the individual's needs and the degree to which these needs are being satisfied or frustrated" (Adorno et al., 1950, p. 2). The basic idea is that our belief systems serve psychological functions. There are systematic correspondences (or "elective affinities") between our psychological states and the political opinions we embrace. Or, as Lionel Trilling (1950) noted in *The Liberal Imagination*: "[C]ertain sentiments consort only with certain ideas and not with others" (p. xvii). We are not merely passive vessels of whatever beliefs and opinions we happen to have been exposed to, although some social scientists have supposed that we are. As human beings, we are drawn to those beliefs and ideologies that match or resonate with our needs and interests, and we are repelled by those that violate them.

What psychological needs, in particular, do political ideologies serve? If we define "ideology" broadly as a socially shared system of beliefs "about the proper order of society and how it can be achieved" (Erikson & Tedin, 2003, p. 64), then I would suggest that ideology serves three fairly basic psychological needs, namely: epistemic, existential, and relational needs (or motives). Ideology offers a sense of certainty, predictability, and control; a sense of safety, security, and reassurance; and a sense of identity, belongingness, and shared reality (see also Jost, Federico, & Napier, 2009, 2013). However—and I think that this is an essential point that is frequently overlooked—some ideologies may *appear* to serve these needs more directly or more comprehensively than others. Ideologies often promise things that they do not actually deliver, and this is an important part of the story of why people are attracted to them. In this article, I focus on what I take to be the most important ideological cleavage since at least the time of the French Revolution: the cleavage between the left and the right (Bobbio, 1996; Laponce, 1981; Tomkins, 1963).

Political Ideology as Motivated Social Cognition

In an effort to synthesize more than half a century's worth of theorizing and research on the psychological basis of political orientation, Jost et al. (2003) proposed that there is a fairly natural

¹ See http://time.com/8293/its-true-liberals-like-cats-more-than-conservatives-do/ for the complete article.

correspondence—or, in the language of Max Weber, an "elective affinity"—between psychological needs to manage uncertainty and threat, on one hand, and core philosophical values of political conservatism, namely respect for tradition and hierarchy (or inequality), on the other. That is, heightened epistemic motives to reduce uncertainty and ambiguity and attain a sense of order, structure, and closure should favor the adoption of conservative, rightist attitudes that serve to preserve the status quo. Likewise, heightened existential motives to quash threat and anxiety and recover a sense of safety and security should privilege rightist over leftist solutions to social problems.

The guiding notion here is that the style and substance of conservative ideology—which includes the maintenance of what is traditional and familiar and the justification of hierarchical, unequal forms of social organization—promise certainty, simplicity, order, security, and orthodoxy in a way that liberal (or progressive) ideology seldom does. To embrace the vicissitudes of liberal ideology—which emphasizes equality, progress, diversity, and tolerance of differences—one must be willing to accept, psychologically speaking, some degree of uncertainty, complexity, novelty, and ambiguity. Or, as Bertrand Russell (1950) put it, "The essence of the liberal outlook lies not in *what* opinions are held, but in *how* they are held: instead of being held dogmatically, they are held tentatively, and with a consciousness that new evidence may at any moment lead to their abandonment" (p. 15).

To investigate "elective affinities" such as these, Jost et al. (2003) reviewed 88 studies carried out in 12 countries over a 44-year period involving over 22,000 individual participants or cases. Consistent with Russell's (1950) interpretation, we saw that epistemic motives associated with intolerance of ambiguity, dogmatism, avoidance of uncertainty, cognitive simplicity, and personal needs for order, structure, and closure were positively associated with the endorsement of conservative or rightist points of view—and negatively associated with liberal or leftist points of view. We also observed that existential motives associated with death anxiety, perceptions of a dangerous world, and system-level threats were positively associated with conservatism (and negatively associated with liberalism). It may be worth noting, for the sake of posterity, that very few of these psychological measures were originally created for the purpose of exploring ideological asymmetries. In most cases, researchers developed scales to measure variables such as intolerance of ambiguity, cognitive and perceptual rigidity, death anxiety, and personal needs for structure, order, and closure long before they thought to ask whether there would be differences between liberals and conservatives in these characteristics.

Unfortunately, research on psychological differences between liberals and conservatives has been treated as inherently controversial. It is probably unsurprising that our work was attacked by certain members of conservative media, such as Ann Coulter, Jonah Goldberg, and George Will (e.g., see Dean [2006] and Mooney [2012] for summaries). Ironically, some critics displayed the same closed-minded, defensive traits they were eager to repudiate. For instance, Goldberg declared that "I've put the shotgun down, and put my car keys back on the table" and offered a "relaxation aid" to help conservatives cope with the summary of our meta-analysis, namely a photograph of police officers executing Ronald Reagan's order to teargas protestors at Berkeley. Years later, Shermer (2011) offered histrionic caricatures (and mixed metaphors) of our work, claiming that—from our perspective—"conservatism must be a mental disease, a flaw in the brain, a personality disorder that leads to cognitive malfunctioning. Much as medical scientists study cancer in order to cure the disease, liberal political scientists study political attitudes and voting behavior in order to cure people of the cancer of conservatism" (p. 233; see Jost, 2011, for a response).

The basic findings and conclusions reached by Jost et al. (2003), which have nothing to do with mental illness or cultural cancers, have been replicated, extended, qualified, and applied in a number of useful and insightful ways (for reviews, see Hibbing, Smith, & Alford, 2014a; Jost & Amodio, 2012; Jost & Krochik, 2014; Jost, Sterling, & Stern, 2017; Jost, Stern, Rule, & Sterling, 2017; Onraet, Van Hiel, Dhnot, & Pattyn, 2013; Van Hiel, Onraet, & De Pauw, 2010). Researchers have worked out implications of our theory of political ideology as motivated social cognition for understanding, among other things: influences of genetic heritability and assortative mating on resistance to change

and acceptance of inequality (Kandler, Bleidorn, & Riemann, 2012); continuity between childhood temperament and political orientation in adulthood (Block & Block, 2006; Fraley, Griffin, Belsky, & Roisman, 2012); interpersonal attachment styles and adoption of rightist (vs. leftist) ideology (Weber & Federico, 2007); ideological differences in approach/avoidance (Rock & Janoff-Bulman, 2010) and exploratory behavior in novel, potentially risky situations (Shook & Fazio, 2009); perceptual vigilance and physiological reactivity in response to negative and threatening stimuli (Carraro, Castelli, & Macchiella, 2011; Hibbing et al., 2014a; Oxley et al., 2008; Vigil, 2010); patterns of verbal communication (Brundidge, Reid, Choi, & Muddiman, 2014; Cichocka, Bilewicz, Jost, Marrouch, & Witkowska, 2016; Robinson, Cassidy, Boyd, & Fetterman, 2015; Sylwester & Purver, 2015); and liberal-conservative differences in brain structures and functions, especially those associated with the amygdala and anterior cingulate cortex (Amodio, Jost, Master, & Yee et al., 2007; Kanai, Feilden, Firth, & Rees, 2011; Oxley et al., 2008).

In sociology and political science, the theory of political ideology as motivated social cognition has been applied to core topics of the discipline such as domestic and foreign policy making as well as voting behavior, motivated reasoning, and right-wing terrorism (Gambetta & Hertog, 2016; Gries, 2014; Hibbing, Smith, & Alford, 2014b; Rathbun, 2014). Taken as a whole, this work supports the observation made by contemporary scholars of American politics that members of the Republican Party are more ideologically zealous than members of the Democratic Party, and they are rather intolerant of those who deviate from conservative values and principles (Grossmann & Hopkins, 2016). Scholarship throughout the social and behavioral sciences has stoked popular interest in the subject matter of political psychology, as indicated by the sheer number of trade books devoted to the topic in the last decade or so—many of which focus on social, cognitive, and motivational differences between liberals and conservatives (e.g., Alterman, 2008; Dean, 2006; Haidt, 2012; Lakoff, 2008; Mooney, 2012; Tuschman, 2013; Westen, 2007).

Research in this area has also garnered some legitimate criticism on scientific grounds. Some of the more thoughtful questions and criticisms have come from members of ISPP, including the following:

- 1) What about rigidity of the left, especially in Central/Eastern Europe, given its history of dogmatic leadership and totalitarian socialism (Golec de Zavala, & Van Bergh, 2007; Greenberg & Jonas, 2003)?
- 2) Are needs to reduce uncertainty and threat associated with authoritarianism—or ideological extremism in general—rather than political conservatism per se (Crowson, Thoma, & Hestevold, 2005; Greenberg & Jonas, 2003; van Prooijen, Krouwel, Boiten, & Eendebak, 2015)?
- 3) Aren't the psychological correlates of social versus economic conservatism very different from one another (Crowson, 2009; Feldman & Johnston, 2014; Malka, Soto, Inzlicht, & Lelkes, 2014)?
- 4) Could it be that the "true" effect sizes between psychological and political variables are much weaker than Jost et al. (2003) suggested (Jussim et al., 2016; Van Hiel et al., 2010)?
- 5) Aren't ideological differences confined to subjective, self-report measures that mean little when it comes to actual behavior (Kahan, 2016; Van Hiel et al., 2010)?
- 6) Aren't liberals just as biased as conservatives when it comes to motivated social cognition (Conway et al., 2016; Crawford, 2012; Kahan, 2016), and just as prejudiced, too (Brandt, Reyna, Chambers, Crawford, & Wetherell, 2014; Chambers, Schlenker, & Collisson, 2013)?

To begin with, I do agree that there are important symmetries between the left and right (Jost, Hennes, & Lavine, 2013). A preliminary review by Liu et al. (2014) hinted, for instance, that liberals and conservatives may be similarly prone to biased assimilation (and belief polarization) when

presented with facts supporting both sides of a political argument. My point, in any case, is that there are *both* symmetries and asymmetries. Like many others, I assume that there are generic psychological processes that apply to leftists as well as rightists, but we should not lose sight of the fact that there are unique features of specific ideologies that not only render them differentially appealing to various constituencies but also bring about different effects in their adherents. I would go further: The asymmetries tell us more about *specific* ideologies than the symmetries do and, therefore, about *political* psychology—as distinct from, say, social or cognitive psychology.

One of the explicit goals of our 2003 article was to stimulate more research on the psychology of political ideology, and, in that respect, we have succeeded beyond even our wildest expectations. For a variety of reasons—certainly not just the publication of our article—there have been *far* more studies on this topic in the last 14 years than in the preceding 50 years. My students, Joanna Sterling and Chadly Stern, and I have put together newer, more comprehensive meta-analytic reviews (Jost, Sterling, et al., 2017; Jost, Stern, et al., 2017). We have identified, for instance, 181 studies on epistemic motivation involving over 130,000 individual participants and nearly 100 studies on existential motivation involving over 360,000 participants. These databases are much, much larger than those used in previous meta-analyses by Burke, Kosloff, and Landau (2013), Jost et al. (2003), Onraet et al. (2013), and Van Hiel et al. (2010). An in-depth consideration of these studies helps to address some of the questions and criticisms that have been raised in the research literature. The evidence is—in most but not all respects—consistent with Jost et al.'s (2003) original review.

Ideological Asymmetries in Epistemic Motivation

Using a variety of search methods, Jost, Sterling, et al. (2017) obtained data from 181 distinct samples and 14 countries and a total of 133,796 individual participants—roughly six times as many participants as in the original meta-analysis by Jost et al. (2003). We conducted separate analyses of the relationship between political ideology and each of nine categories of epistemic motivation, namely: tolerance of ambiguity, cognitive rigidity, dogmatism, integrative complexity, personal needs for order and structure, need for cognitive closure, uncertainty tolerance, cognitive reflection, and need for cognition.

The largest effect sizes were observed for dogmatism and cognitive rigidity. We identified 50 studies (carried out in seven different countries) investigating the hypothesis that dogmatism—which entails, among other things, the conviction that "To compromise with one's political opponents is dangerous because it usually leads to the betrayal of our own side"—would be stronger on the political right than the left. As shown in Figure 1, this hypothesis was upheld in 45 of the 50 studies; there was no study in which leftists scored higher in dogmatism. Overall, the unweighted (r = .48) and weighted (r = .51) average effect sizes were positive and quite large.

We also identified 16 studies investigating the hypothesis that conservatives would score higher than liberals on tests of perceptual or cognitive rigidity. Typically, the tasks measure objective behaviors such as the tendency to exclude nonprototypical examples from category classification. The hypothesis was clearly upheld in nine studies, and in six others the effect was nonsignificant but in the predicted direction (see Figure 2). Overall, the unweighted (r = .32) and weighted (r = .38) average effect sizes were fairly large and statistically significant.

Although Jost et al. (2003) identified only a few studies focusing on "personal needs for order and structure," there have now been 36 studies (conducted in six different countries) investigating the hypothesis that conservatives would score higher than liberals on these needs. In 24 studies the hypothesis was upheld, and in 10 others the effect was nonsignificant but in the predicted direction (see Figure 3). Overall, the unweighted (r = .20) and weighted (r = .18) average effect sizes were positive and significant. Likewise, there have been 41 studies (conducted in eight different countries)

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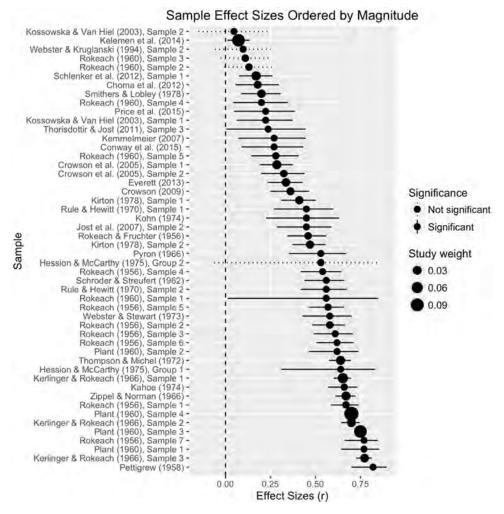


Figure 1. Distribution of average effect sizes for studies investigating the hypothesis that political conservatism is associated with dogmatism.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

investigating the hypothesis that conservatives would score higher than liberals on the need for cognitive closure. The hypothesis was upheld in 32 studies, and in seven others the effect was nonsignificant but in the predicted direction (see Figure 4). The unweighted (r=.23) and weighted (r=.19) average effect sizes were positive and significant. An additional 24 studies (conducted in eight different countries) investigated the hypothesis that conservatives would be less tolerant of ambiguity than liberals. The hypothesis was upheld in 21 studies, and in no case were liberals less tolerant of ambiguity than conservatives (see Figure 5). Once again, the unweighted (r=.26) and weighted (r=.20) average effect sizes were positive and significant.

On the basis of 11 studies exploring ideological differences in "integrative complexity"—which is typically measured objectively in terms of content coding of speeches, decisions, and other forms of text—Jost et al. (2003) concluded that liberals scored higher than conservatives on integrative complexity. This conclusion was challenged by Conway et al. (2016), who obtained inconclusive results. There have now been 26 studies conducted in four different countries; none of these studies found

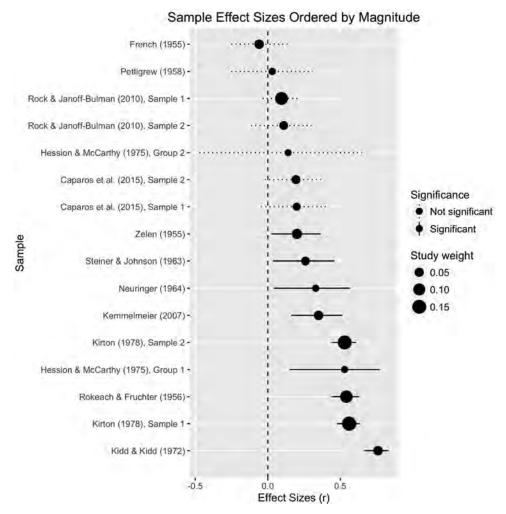


Figure 2. Distribution of average effect sizes for studies investigating the hypothesis that political conservatism is associated with cognitive and perceptual rigidity.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

that conservatives scored significantly higher in integrative complexity, although null results were obtained in half of the studies (see Figure 6). Overall, unweighted (r = -.19) and weighted (r = -.15) average effect sizes were negative and significant, indicating that liberals exhibit more integrative complexity than conservatives.

An additional 10 studies have investigated the hypothesis that "uncertainty tolerance"—which has been measured in a number of ways, including aesthetic preferences for complex art and poetry and disagreement with items such as "I can't stand being taken by surprise"—would be greater among liberals than conservatives. The hypothesis was upheld in eight studies, and in two others the effect was nonsignificant but in the predicted direction (see Figure 7). The unweighted (r = -.35) and weighted (r = -.07) average effect sizes were negative and statistically significant but varied dramatically in magnitude. The sample size for one study was enormous (accounting for 99% of the total [unique] n), but the psychometric properties of the scale used to gauge the "need for certainty and security" (a blend of epistemic and existential motives)

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Sample Effect Sizes Ordered by Magnitude

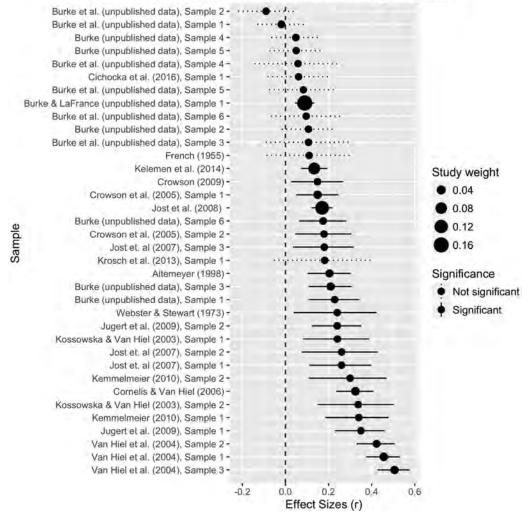


Figure 3. Distribution of average effect sizes for studies investigating the hypothesis that political conservatism is associated with personal needs for order and structure.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

were problematic.² As a result, this study diluted the weighted effect size to a disproportionate extent. When it was excluded from calculations, the unweighted (r = -.35) and weighted (r = -.33) average effect sizes were both very strong.

To our knowledge, there were no studies exploring ideological differences in "need for cognition" conducted prior to the Jost et al. (2003) review. Since then, there have been 19 studies investigating the hypothesis that liberals would score higher than conservatives on the need for

Malka et al. (2014) estimated needs for certainty and security on the basis of a subset of five items that, according to the authors, "contrasted motivations for security, tradition, and conformity with motivations for self-direction and stimulation." Interitem correlations and scale reliability for these items were extremely low, and they appear to have been taken from five different subscales of Schwartz's (1992) Value Priorities Scale, which typically uses 56 or 57 items to measure 10 value priorities that are believed to vary across individuals and cultures.

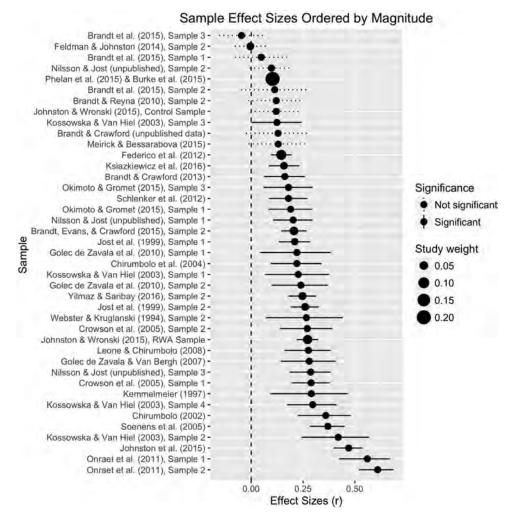


Figure 4. Distribution of average effect sizes for studies investigating the hypothesis that political conservatism is associated with need for cognitive closure.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

cognition, which is measured with items such as "I find satisfaction in deliberating hard and for long hours" (Cacioppo & Petty, 1982). The hypothesis was clearly upheld in 14 studies, and in the other five studies the effect was nonsignificant but in the predicted direction (see Figure 8). Overall, the unweighted (r = -.16) and weighted (r = -.09) average effect sizes were negative and statistically significant but modest in terms of magnitude. In terms of "dual process" theories popularized by Kahneman (2011), this evidence suggests that conservatives are more likely than liberals to engage in heuristic, automatic, intuitive, and stereotypical (i.e., "System 1") thinking, whereas liberals are more likely than conservatives to engage in more systematic, controlled, effortful, deliberative (i.e., "System 2") thinking (see also Jost & Krochik, 2014; Yilmaz & Saribay, in press).

³ Asymmetries such as these may also help to explain why self-identified liberals score higher on measures of scientific literacy (Carl, Cofnas, & Woodley, 2016) and consider more empirical data than conservatives when instructed to confront a variety of scientific questions (Tullett, Hart, Feinberg, Fetterman, & Gottlieb, 2016).

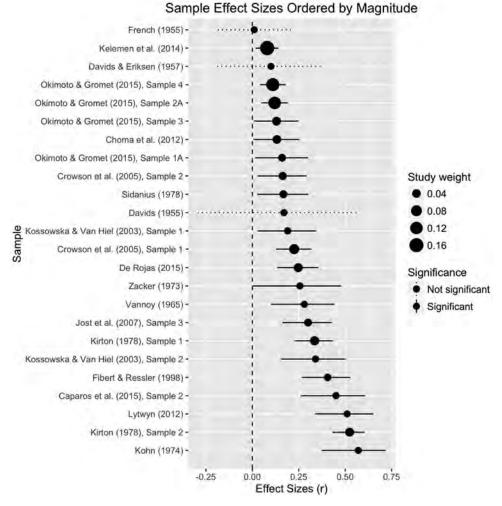


Figure 5. Distribution of average effect sizes for studies investigating the hypothesis that political conservatism is associated with intolerance for ambiguity.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

Kahan (2016) dismissed evidence of ideological asymmetries derived from self-report measures of cognitive style and epistemic motivation, arguing that "defects in information processing are not open to introspective observation or control" and that there is "little reason to believe a person's own perception of the quality of his reasoning is a valid measure of it" (p. 5). He proposed instead that such differences should be demonstrated on "objective measures" of analytical reasoning, such as the "cognitive reflection test" (CRT). There have now been 13 studies investigating ideological differences in cognitive reflection (or intuitive vs. analytic thinking), and 11 of these studies revealed that liberals exhibited more cognitive reflection than conservatives (see Figure 9). Overall, the unweighted (r = -.16) and weighted (r = -.11) average effect sizes were negative and statistically significant, albeit modest in terms of magnitude.

There are other differences as well. Three studies based on very large samples (totaling 95,000 participants) reveal a significant correlation between political conservatism and self-deception, measured in terms of agreement with items such as "My first impressions of people usually turn out to be

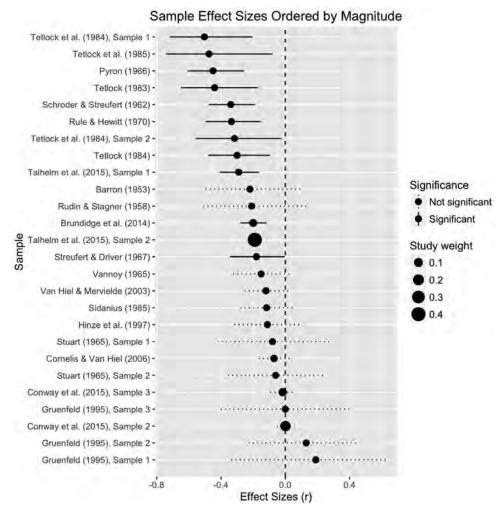


Figure 6. Distribution of average effect sizes for studies investigating the hypothesis that political liberalism is associated with integrative complexity.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

right" and "The reason I vote is that my vote can make a difference" (Jost & Krochik, 2014; Jost et al., 2010; Wojcik, Hovasapian, Graham, Motyl, & Ditto, 2015). Aggregating across dozens of political and nonpolitical topics, Jost and Krochik (2014) found that conservatives exhibited greater attitudinal stability and certainty and less attitudinal ambivalence, in comparison with liberals—and ideological differences in self-deception helped to explain why (see Figure 10).

Although it is often taken for granted that economic conservatives are more accuracy-driven than social conservatives, there is some evidence suggesting that faith in the inherent fairness of capitalist markets involves an element of self-deception (Jost, Blount, Pfeffer, & Hunyady, 2003). In dissecting the ideology of neoliberalism, Monbiot (2016) noted: "The words used by neoliberalism often conceal more than they elucidate. 'The market' sounds like a natural system that might bear upon us equally, like gravity or atmospheric pressure. But it is fraught with power relations. What 'the market wants' tends to mean what corporations and their bosses want." Consistent with the notion that economic conservatism may be less grounded in rational thought than is commonly assumed, Sterling, Jost, and

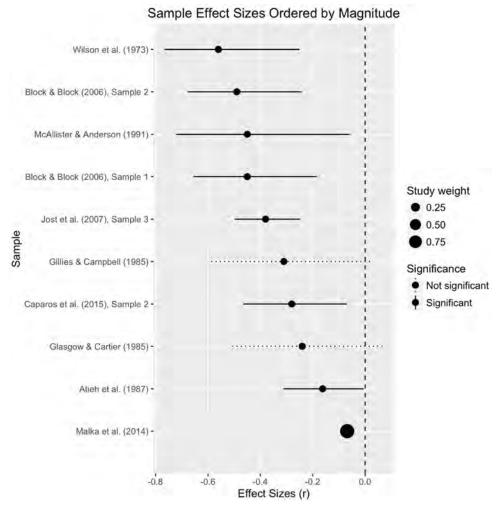


Figure 7. Distribution of average effect sizes for studies investigating the hypothesis that political liberalism is associated with tolerance of uncertainty.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

Pennycook (2016) found that individuals who endorsed neoliberal, free market ideology were more susceptible to "pseudo-profound bullshit," that is, statements that were extremely vague or meaningless, such as: "Consciousness is the growth of coherence, and of us"; and "Your movement transforms universal observations." Those who endorsed free market ideology scored lower on measures of verbal and fluid intelligence and were more receptive to "bullshit." Furthermore, the relationship between economic ideology and bullshit receptivity appeared to be mediated by reliance on heuristic processing and low verbal intelligence (see Figure 11).

Another study carried out by Pfattheicher and Schindler (2016) yielded parallel results: Those who identified themselves as conservative and expressed favorable evaluations of three leading Republican candidates for president (Donald Trump, Ted Cruz, and Marco Rubio) were more receptive to pseudo-profound bullshit than those who did not. There was no relationship between evaluations of Democratic candidates Hillary Clinton, Bernie Sanders, and Martin O'Malley and bullshit receptivity. Fessler, Pisor, and Holbrook (in press), too, found that conservatives scored higher than

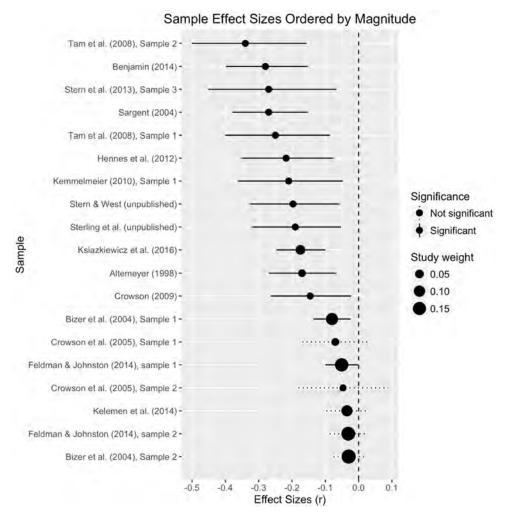


Figure 8. Distribution of average effect sizes for studies investigating the hypothesis that political liberalism is associated with need for cognition.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

liberals on measures of "erroneous credulity" with respect to potential threats in the environment. Taken as a whole, evidence of ideological asymmetries in epistemic motivation (and cognitive ability) may help to explain a panoply of political phenomena, including the proliferation of websites that spread "fake news" on the political right (Ingraham, 2016; Sydell, 2016).

In summary, then, an updated, more comprehensive meta-analysis not only reproduces all the effect sizes estimated by Jost et al. (2003) concerning ideological differences in epistemic motivation; it also shows that ideological asymmetries extend to new and additional variables, including cognitive reflection, self-deception, and bullshit receptivity. Aggregating across 181 studies involving over 130,000 research participants from 14 different countries, we confirmed that political conservatism was positively associated with intolerance of ambiguity, need for cognitive closure, personal needs for order and structure, cognitive/perceptual rigidity, and dogmatism. In addition, liberalism was positively associated with integrative complexity, uncertainty tolerance, cognitive reflection, and need for cognition. In all cases, average effect sizes attained statistical significance. Importantly, most (but not

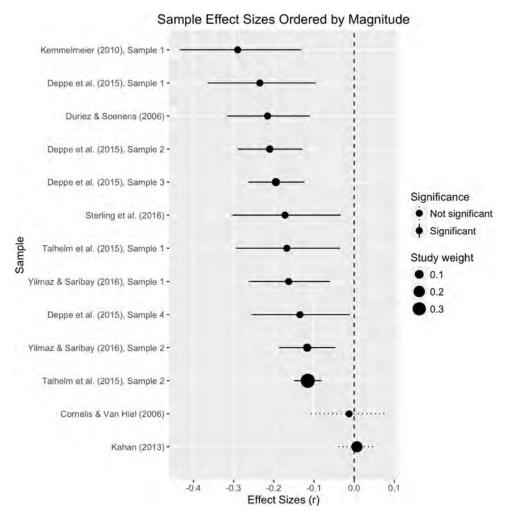


Figure 9. Distribution of average effect sizes for studies investigating the hypothesis that political liberalism is associated with cognitive reflection.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Sterling, et al. (2017).

all) of the results were robust to concerns about publication bias or the "file drawer" problem, as determined by calculations of failsafe *n*, Egger's regression, and funnel plots based on trim-and-fill procedures (see Jost, Sterling, et al., 2017).

These findings also refute several criticisms, including the notion that the model of political conservatism as motivated social cognition simply does not apply to Central or Eastern Europe, because of its Communist legacy (e.g., Greenberg & Jonas, 2003). Several of the newer studies were conducted in postcommunist societies, and the results resemble those obtained in the West, much as McFarland, Ageyev, and Abalakina-Papp (1992) predicted they would over time. For example, personal needs for order, structure, and closure were associated with right-wing (rather than left-wing) orientation in Hungary and Poland (Cichocka et al., 2016; Golec de Zavala, Cislak, & Wesolowska, 2010; Kelemen, Szabó, Mészáros, László, & Forgas, 2014). These developments are far from purely academic in recent years; there has been a dangerous surge in the popularity of right-wing authoritarianism throughout this region (Aisch, Pearce, & Rousseau, 2016).

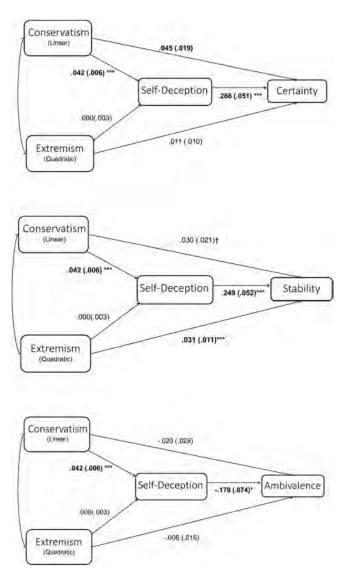


Figure 10. Self-deception mediates the effects of political conservatism (but not ideological extremism) on attitudinal certainty (top), stability (middle), and ambivalence (bottom). Sobel Z tests for mediation were statistically significant in all three cases: 4.08 (p < .001), 3.95 (p < .001), and -2.27 (p < .05), respectively from top to bottom. *Source*. This figure was prepared by Margarita Krochik and is based on data from Jost and Krochik (2014).

Our findings are consistent with the possibility that epistemic motives may be more strongly linked to social than economic attitudes, but they are typically linked to both. Our review of the literature revealed that in many cases dogmatism, personal needs for structure, heuristic thinking, and low need for cognition were associated with economic (as well as social) conservatism and with ideological self-placement and issue-based conservatism as well as right-wing authoritarianism (e.g., Cornelis & Van Hiel, 2006; Crowson, 2009; Everett, 2013; Hennes, Nam, Stern, & Jost, 2012; Sterling et al., 2016).

The meta-analysis by Jost, Sterling, et al. (2017) also provides plenty of evidence to dismiss Jussim et al.'s (2016) claim that "true" effect sizes are much weaker than Jost et al. (2003) suggested. What we actually find is that in several cases—such as perceptual/cognitive rigidity and dogmatism—

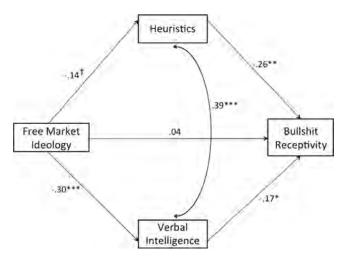


Figure 11. Cognitive style and cognitive ability mediate the effect of endorsement of free market ideology on bullshit receptivity. All values are standardized coefficients. Sterling et al. (2016) estimated the indirect effect using PROCESS's Model 6 with 5,000 bootstraps and observed that the endorsement of free market ideology was associated with a failure to correct heuristic processing was associated with greater bullshit receptivity. The endorsement of free market ideology was also associated with lower verbal intelligence, and lower verbal intelligence was associated with greater bullshit receptivity. After adjusting for the effects of heuristic processing and verbal intelligence, the relationship between free market ideology and bullshit receptivity no longer approached significance, p = .64. The 95% confidence intervals of the indirect effects of free market ideology through heuristic processing and verbal intelligence did not contain zero, [0.0001, 0.0036] and [0.0002, 0.0042], suggesting significant mediation at $\alpha = .05$. * p < .05 ** p < .01 *** p < .001.

Source. This figure was prepared by Joanna Sterling and is based on data from Sterling et al. (2016).

they are quite a bit stronger than previous reviews suggested. The evidence also controverts the suggestion that ideological differences in epistemic motivation are confined to subjective, self-report measures (Jussim et al., 2016; Kahan, 2016; Van Hiel et al., 2010). On the contrary, there is now a good deal of evidence based on objective, behavioral measures of cognitive style—on tests of perceptual and cognitive rigidity as well as "cognitive reflection"—and the conclusions are virtually the same. Additional studies, which we have not systematically reviewed, demonstrate that liberals and conservatives differ when it comes to objective measures of cognitive ability and intelligence (Deary, Batty, & Gale, 2008; Heaven, Ciarrochi, & Leeson, 2011; Hodson & Busseri, 2012; Ludeke, Rasmussen, & DeYoung, in press; Onraet et al., 2015; Sterling et al., 2016) as well as exploratory and approachorientated behavior (Rock & Janoff-Bulman, 2010; Shook & Fazio, 2009), nonverbal gestures and room décor (Carney, Jost, Gosling, & Potter, 2008), perceptual attention to threatening stimuli (Carraro et al., 2011; Vigil, 2010), language usage (Cichocka et al., 2016), and many other characteristics. As noted above, there are even physiological differences between liberals and conservatives, including asymmetries in neurocognitive structures and functions pertaining to conflict monitoring and threat sensitivity (Amodio et al., 2007; Kanai, Feilden, Firth, & Rees, 2011; Oxley et al., 2008).

Thus far, most of the results I have described are correlational in nature. But it is worth emphasizing that in experimental research, epistemic needs to reduce uncertainty (or to attain cognitive closure) have been induced through cognitive load, distraction, time pressure, threat, or alcohol intoxication (Eidelman, Crandall, Goodman, & Blanchar, 2012; Friesen, Kay, Eibach, & Galinsky, 2014; Hansson, Keating, & Terry, 1974; Lammers & Proulx, 2013; Rock & Janoff-Bulman, 2010; Rutjens & Loseman, 2010; Skitka, Mullen, Griffin, Hutchinson, & Chamberlin, 2002; Thórisdóttir & Jost, 2011; Van Berkel, Crandall, Eidelman, & Blanchar, 2015). These inductions tend to increase the individual's affinity for hierarchy, order, and conservative, right-wing opinions and labels. Experiments of this

kind are especially valuable because they help to establish a causal link between epistemic motivation and specific political attitudes and orientations (see also Yilmaz & Saribay, in press).

Ideological Asymmetries in Existential Motivation

In March of 2015, Ipsos and Reuters asked a nationally representative sample of 2,809 Americans (including 1,083 Democrats and 1,059 Republicans) about potential threats to the United States (see Rampton, 2015). The results, which are summarized in Tables (1–3), were striking in that Republicans were more likely than Democrats to regard roughly three-quarters (35 out of 46, or 76%) of the countries, organizations, leaders, and phenomena mentioned in the survey as highly threatening. For instance, Republicans were 20% more likely to regard Iran as threatening, 17% more likely to regard Al Qaeda, China, and ISIS executioner "Jihadi John" as threatening, 16% more likely to regard North Korea's Kim Jong-un as threatening, 31% more likely to regard illegal immigration as threatening, 28% more likely to regard Islam as threatening, and 16% more likely to regard gay rights as threatening, in comparison with Democrats.

Given that some claim that liberals and conservatives are equally "intolerant" of social groups that are assumed to be ideologically opposed to them (Brandt et al., 2014; Chambers et al., 2013; Crawford, 2012), it is worth noting that Democrats were indeed more likely than Republicans to describe Christianity, the Catholic Church, and Pope Francis as threatening to the United States, but the differences between Democrats and Republicans with respect to these attitude objects were quite small (ranging from 1% to 5%). By contrast, Republicans were 28% more likely than Democrats to describe Islam as threatening and 15% more likely to describe atheism as threatening. Forty-seven percent of Republicans regarded the Democratic Party as highly threatening, as compared with 38% of Democrats who regarded the Republican Party as highly threatening.

Table 1. Percentage of Democratic and Republican Survey Respondents Who Perceived Each of the Following Countries and Organizations as Highly Threatening (March 2015)

Country/Organization	Democrats	Republicans	Difference
Democratic Party	8%	47%	+39%
Iran	50%	70%	+20%
Al Qaeda	61%	78%	+17%
China	28%	45%	+17%
Russia	39%	55%	+16%
Islamic State/ISIS	69%	84%	+15%
Yemen	26%	41%	+15%
Cuba	8%	20%	+12%
Syria	39%	51%	+12%
North Korea	53%	64%	+11%
Boko Haram	32%	41%	+9%
Saudi Arabia	26%	32%	+6%
NSA	17%	21%	+4%
Anonymous	16%	19%	+3%
CIA	14%	17%	+3%
Catholic Church	14%	10%	-4%
Israel	23%	16%	-7%
Republican Party	38%	7%	-31%
Total Average	31.2%	39.9%	+8.7%

Note. Data are based on the results of an IPSOS/Reuters Poll (Rampton, 2015). Cell entries are percentages of Democratic and Republican respondents who responded with 4 or 5 on a scale ranging from 1 (*No threat*) to 5 (*Imminent threat*). Total N = 2,809.

Table 2. Percentage of Democratic and Republican Survey Respondents Who Perceived Each of the Following Leaders as Highly Threatening (March 2015)

Leader	Democrats	Republicans	Difference
President Obama	10%	52%	+42%
Iranian Ayatollah	42%	66%	+24%
Al Qaeda Leader	57%	75%	+18%
Russian President	39%	57%	+18%
Chinese President	24%	42%	+18%
ISIS Executioner	51%	68%	+17%
North Korean Leader	54%	70%	+16%
Cuban President	17%	26%	+9%
Syrian President	37%	45%	+8%
Pope Francis	9%	8%	-1%
Israeli Prime Minister	19%	12%	-7%
U.S. Speaker Boehner	26%	9%	-17%
Total Average	2.1%	44.2%	+12.1%

Note. Data are based on the results of an IPSOS/Reuters Poll (Rampton, 2015). Cell entries are percentages of Democratic and Republican respondents who responded with 4 or 5 on a scale ranging from 1 (*No threat*) to 5 (*Imminent threat*). Total N = 2,809.

Throughout the 2016 presidential campaign, observers often noted the ways in which Republican nominee Donald Trump exploited existential motives to garner political support (Judis, 2015; Kruglanski, 2015; Strauss, 2016). One journalist wrote: "Trump is a master of fear, invoking it in concrete and abstract ways, summoning and validating it. More than most politicians, he grasps and channels the fear coursing through the electorate. And if Trump still stands a chance to win in November, fear could be the key" (Ball, 2016). The study of political psychology helps to explain why there seems to be an "elective affinity," not only in this election but in many elections around the world, between needs to reduce fear and threat, on one hand, and conservative ideology, on the other.

Table 3. Percentage of Democratic and Republican Survey Respondents Who Perceived Each of the Following Phenomena as Highly Threatening (March 2015)

Phenomenon	Pct. of Democrats	Pct. of Republicans	Difference
Illegal Immigration	36%	67%	+31%
Islam	30%	58%	+28%
Gay Rights	15%	31%	+16%
Atheism	18%	33%	+15%
Drug Trafficking	56%	68%	+12%
Terrorism	73%	85%	+12%
Cyber Attacks	63%	74%	+11%
WMD Proliferation	24%	34%	+10%
Collapse of Nation States	29%	34%	+5%
Organized Crime	49%	53%	+4%
Judaism	12%	13%	+1%
Women's Rights	12%	12%	0
Christianity	13%	8%	-5%
Sexism	34%	21%	-13%
Racism/Bigotry	61%	41%	-20%
Climate Change	55%	24%	-31%
Total Average	36.25%	41%	+4.75%

Note. Data are based on the results of an IPSOS/Reuters Poll (Rampton, 2015). Cell entries are percentages of Democratic and Republican respondents who responded with 4 or 5 on a scale ranging from 1 (*No threat*) to 5 (*Imminent threat*). Total N = 2,809.

There has been such a dramatic increase in research on the psychological underpinnings of political orientation since the publication of the article by Jost et al. (2003) that we are now in a position to review more than 200 tests of the hypothesis that heightened existential motives are associated with conservative (as opposed to liberal) preferences.

Jost, Stern, Rule, and Sterling (2017) reviewed evidence from 134 distinct samples and 369,525 participants from 16 countries. This database is 16 times larger than those analyzed previously by Jost et al. (2003) and Onraet et al. (2013). Although the association between self-reported fear of death and conservatism was not reliable, we did observe significant effects of mortality salience, subjective perceptions of threat, and exposure to objectively threatening circumstances on conservatism. Furthermore, these effects did not seem to be restricted to social (or cultural) dimensions of ideology. When Sam Gosling, Jamie Pennebaker, and I administered questions about fear to a sample of approximately 1,000 undergraduates at the University of Texas at Austin, for instance, we observed that fear of terrorism was correlated with economic (r [1,019] = .33) as well as social (r [1,019] = .35) and general (r [1,023] = .38) conservatism (in all cases, p < .001).

In 2003, only two studies had investigated the effect of mortality salience on ideological outcomes, and even in those cases the dependent variables were not overtly political. Since then, there have been at least 34 studies investigating the hypothesis that mortality salience would increase the psychological appeal of conservative leaders, opinions, and policies. There is clearly some variability in effect sizes (see Figure 12), and some moderating variables have been identified in the research literature on terror-management theory. Nevertheless, the preponderance of evidence indicates that there is a fairly weak but significant effect of mortality salience on conservative preferences. Overall, the unweighted (r = .13) and weighted (r = .08) average effect sizes were positive and significant.

Jost, Stern, et al. (2017) identified 62 studies (conducted in 13 different countries) investigating the hypothesis that subjective assessments of threat—such as perceptions of a dangerous world and perceptions of the world as a "competitive jungle"—would be associated with conservatism. In 52 of these studies, the hypothesis was upheld, often very strongly (see Figure 13). Subjective perceptions of threat were associated not only with right-wing authoritarianism and social dominance orientation but also with economic system justification and ideological self-placement in general. The unweighted (r = .29) and weighted (r = .12) average effect sizes were positive and significant.

We found 34 studies investigating the hypothesis that exposure to objectively threatening circumstances (such as terrorist attacks, governmental warnings, and exposure to information about seismic shifts in racial demography) would be associated with "conservative shift." Every one of these studies was carried out after 2003. In 22 of these studies, the effect sizes were positive and statistically significant, and in no study was there a significant overall effect in the opposite direction (see Figure 14). Aggregating across these studies, the unweighted (r = .14) and weighted (r = .07) average effect sizes indicated that exposure to objectively threatening circumstances was associated with conservative preferences, although the effect size was modest.

There were four additional studies that measured responses to threat at an aggregate level of analysis (such as cross-state comparisons or the results of public opinion polls). Because some of these articles did not include information about sample sizes, it was not possible to calculate a weighted effect size. Nevertheless, the unweighted average effect size (r = .48) provided strong support for the hypothesis that threat would be associated with "conservative shift." Thus, the meta-analytic review by Jost, Stern, et al. (2017) highlights a very important ideological asymmetry with respect to existential motivation: Psychological reactions to fear and threat seem to convey a small-to-moderate political advantage for conservative—as opposed to liberal—leaders, parties, policies, and ideas.

Cole, Granot, Caruso, Jost, and Balcetis (2016) investigated the possibility that there would be an ideological asymmetry in the extent to which threat influenced perceptual representations of politically relevant stimuli. In one study, we showed research participants an aerial photograph of lower Manhattan that included (1) the controversial "Ground Zero Mosque," which included a Muslim prayer

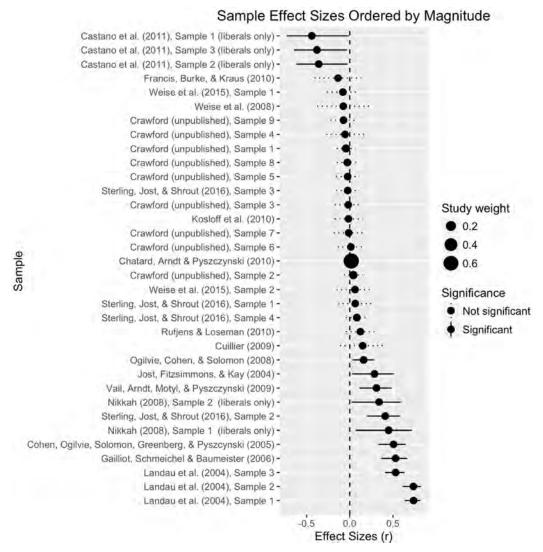


Figure 12. Distribution of average effect sizes for experiments investigating the hypothesis that mortality salience is associated with political conservatism.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Stern, et al. (2017).

space, and (2) the site of the World Trade Center (WTC), which was attacked by Islamic terrorists on 9/11. We then asked them to judge the physical proximity between the two sites. We found that conservatives who were high in nationalist sentiment saw the Mosque as closer to the WTC (and therefore, presumably, more threatening), in comparison with liberals and conservatives who were low in nationalist sentiment. In a second study, we told a sample of Israeli Jews that the number of Arabs in Israel was either increasing disproportionately or remaining the same and asked them to estimate the size of disputed territories (which were shown on a map). Jews who were more religious and more rightist in their political orientation and who were exposed to the demographically threatening information estimated the size of the disputed territories to be larger (and therefore more important) than Jews who were less religious, more leftist, or assigned to the less threatening condition. In subsequent studies, we discovered that—after seeing photographs of political demonstrations—conservatives

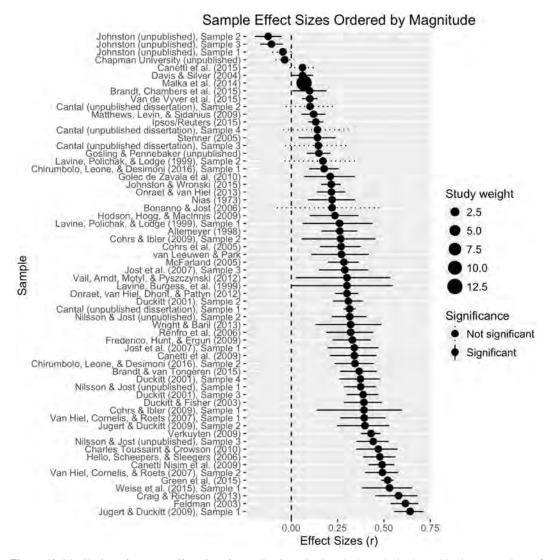


Figure 13. Distribution of average effect sizes for studies investigating the hypothesis that subjective perceptions of threat are associated with political conservatism.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Stern, et al. (2017).

estimated the crowds at opposition demonstrations as larger, in comparison with liberals who were shown the same photographs. In several cases, higher numerical estimates were associated with greater commitment to collective action, suggesting that perceptual threat exaggeration may be a mechanism for increasing political engagement.

Ideological Asymmetries in Relational Motivation

For nearly three decades, fans of the popular conservative commentator Rush Limbaugh have proudly dubbed themselves "ditto heads" to highlight the unequivocal extent to which they echo their idol's opinions. It is tricky to conjure up a progressive counterpart working in radio or television who

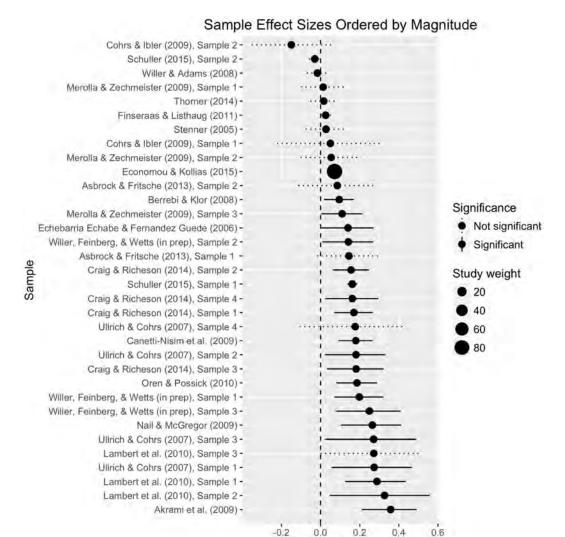


Figure 14. Distribution of average effect sizes for studies investigating the hypothesis that exposure to objectively threatening circumstances is associated with political conservatism.

Source. This figure was prepared by Joanna Sterling and is based on a meta-analysis by Jost, Stern, et al. (2017).

Effect Sizes (r)

has cultivated an analogous spirit of ideological conformity on the left. On the contrary, liberals seem to be perpetually in danger of splintering into various factions and identity-based subgroups, while conservatives push (and hold fellow ideologues to) a more concerted, uniform agenda (Grossmann & Hopkins, 2016). Lithwick and Cohen (2016) drew an especially stark contrast between Democrats' fragmented, anemic response to Donald Trump's 2016 victory in the Electoral College (despite losing the popular election by nearly 3 million votes) and Republicans' overpowering response to the possibility that Al Gore rather than George W. Bush would be declared the winner of Florida and therefore the presidency in 2000:

"Since the election, top Democrats have been ... involved largely in internecine warfare about how much to work with Mr. Trump. The Hillary Clinton campaign, trying to

encourage a peaceful transition, has gone almost completely dark Contrast the Democrats' do-nothingness to what we know the Republicans would have done. If Mr. Trump had lost the Electoral College while winning the popular vote, an army of Republican lawyers would have descended on the courts and local election officials. The best of the Republican establishment would have been filing lawsuits and infusing every public statement with a clear pronouncement that Donald Trump was the real winner."

As in the case of ideological asymmetries with respect to epistemic and existential motives, the anecdotal evidence when it comes to relational motives tends to mirror scientific findings.

Several converging programs of research on the expression of personal values reveal that conservatives place significantly greater emphasis than liberals on conformity, loyalty, tradition, and group cohesion (e.g., Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006; Cavazza & Mucchi-Faina, 2008; Feldman, 2003; Jost, Basevich, Dickson, & Noorbaloochi, 2015; Piurko, Schwartz, & Davidov, 2011; Schwartz, Caprara, & Vecchione, 2010). Jost, Ledgerwood, and Hardin (2008) proposed that conservatives might therefore possess stronger motives to "share reality" with like-minded others, especially insofar as friends and family members provide social validation for one's epistemic commitments as well as reassurance and safety in the face of existential concerns.

A research program by Stern, West, Jost, and Rule (2014) demonstrated that conservatives were indeed more likely than liberals to agree that it was important to "see the world in a similar way as people who generally share your beliefs do." Conservatives also perceived greater consensus within their ranks when making difficult interpersonal judgments. Importantly, the desire to share reality mediated the effect of political conservatism on perceived consensus, raising the prospect of "wishful thinking" as a psychological mechanism.

In one case, we presented liberal and conservative students with photos of young White men and asked them to make two types of judgments—a judgment of whether the man in the photo was gay or straight⁴ and a judgment of whether he was born in November or December. Participants were also asked to estimate the percentage of participants sharing their political beliefs who made judgments similar to their own. With respect to both types of judgments, conservatives perceived more withingroup consensus than liberals, regardless of whether they did exhibit more consensus (as in the case of sexual-orientation judgments) or did not (in the case of birth-month judgments). In a follow-up study, we solicited a different type of interpersonal judgment (food preferences) and observed that conservatives' stronger perceptions of within-group consensus predicted collective self-efficacy in the political domain. In a third and final experiment, we demonstrated that it was possible to eliminate ideological differences in the desire to share reality by attenuating affiliative motives in conservatives or enhancing affiliative motives in liberals. We also found that individuals who perceived greater within-group consensus judged their political party to be more efficacious and expressed stronger intentions to vote in the next election cycle (Stern, West, Jost, & Rule, 2014). These last findings suggest that motivated perceptions of consensus may give conservatives an edge over liberals when it comes to achieving collective goals.

On several issues, my collaborators and I find that conservatives exhibit a "truly false consensus effect"—assuming that like-minded others share their opinions more than they actually do, whereas liberals exhibit an "illusion of uniqueness"—assuming that like-minded others share their opinions

⁴ In another set of studies, we observed that conservatives were more likely than liberals to rely on stereotypical gender-inversion cues when making sexual-orientation judgments (Stern, West, Jost, & Rule, 2013). That is, conservatives more readily assumed that men with stereotypically feminine facial features—such as slender faces, high cheekbones, and long eyelashes—were gay. Reaction time measures revealed that liberals took longer to classify targets as gay or straight, suggesting that they may think more deeply than conservatives about making judgments that may be considered stereotypical.

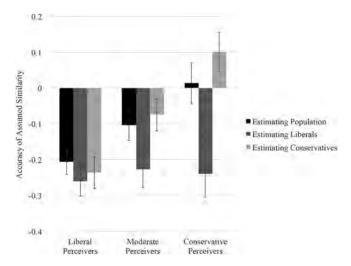


Figure 15. Ideological symmetries and asymmetries with respect to the accuracy of perceived similarity estimates concerning beliefs about childhood vaccination. Positive numbers signify overestimation in perceived similarity between one's own attitudes and those ascribed to others, whereas negative numbers signify underestimation in perceived similarity between one's own attitudes and those ascribed to others. Thus, accurate judgments are indistinguishable from zero. *Source*. This figure is adopted from Rabinowitz et al. (2016).

less than they actually do (Rabinowitz, Latella, Stern, & Jost, 2016; Stern, West, & Schmitt, 2014). Thus, we see an especially stark asymmetry when it comes to relational motivation (see also Stern & West, 2016). In one program of research, we asked liberals and conservatives about their own beliefs (and the beliefs of other liberals and conservatives) concerning the harms and benefits of childhood vaccination (Rabinowitz et al., 2016). Although it has been suggested that liberals are more resistant than conservatives to childhood vaccination, we observed that liberals were more likely to endorse pro-vaccination statements and to regard them as "facts" (rather than "beliefs"), in comparison with moderates and conservatives. Liberals in this sample were also more likely to report having fully vaccinated their own children.

More interestingly, perhaps, Rabinowitz et al. (2016) observed that liberals underestimated the extent to which others shared their own (relatively favorable) beliefs about childhood vaccination; they assumed that the attitudes of the general public, other liberals, and conservatives were more divergent from their own attitudes than was actually the case (see Figure 15). Moderates, too, underestimated how similar their own attitudes were to those of the general population and to those of liberals, but they did not distort the differences between their own attitudes and those of conservatives. Conservatives were highly accurate in perceiving similarity between their own attitudes and those of the general population, but they overestimated the extent to which other conservatives shared their attitudes, and they underestimated the extent to which liberals shared their attitudes. Taken in conjunction, these findings suggest that there may be an ideological asymmetry not only with respect to acceptance (vs. rejection) of scientific research (e.g., Blank & Shaw, 2015; Mooney, 2012). There also seem to be ideological differences when it comes to perceptions of within-group consensus, collective self-efficacy, and the extent to which liberals and conservative are accurate in their understanding of public opinion.

There are two more examples that are noteworthy because they speak even more directly to the study of political science and the dynamics of communication and public opinion in society. The first has to do with the question of whether liberals and conservatives are equally prone to seek out information through social media that confirms their preexisting opinions and to avoid

information that challenges those opinions (Barberá, Jost, Nagler, Tucker, & Bonneau, 2015). There are sound reasons to assume that selective exposure and network homophily would be equally prominent on the left and the right, including the suppositions that cognitive dissonance reduction, social identity maintenance, and motivated reasoning are ubiquitous phenomena (Hogg, 2007; Kahan, 2016; Liu et al., 2014; Munro et al., 2002). At the same time, it is conceivable that conservatives—because of heightened epistemic, existential, and relational needs—are more likely than liberals to favor an "echo chamber" environment. Previous research focusing on traditional media usage was inconclusive. Some studies turned up symmetrical patterns of selective exposure and dissonance avoidance on the part of liberals and conservatives (Iyengar & Hahn, 2009, Knobloch-Westerwick & Meng, 2009; Munro et al., 2002; Nisbet, Cooper, & Garrett, 2015), whereas others indicated that conservatives were indeed more likely than liberals to exhibit these behaviors (Garrett, 2009; Iyengar, Hahn, Krosnick, & Walker, 2008; Lau & Redlawsk, 2006; Mutz, 2006; Nyhan & Reifler, 2010; Sears & Freedman, 1967).

Barberá et al. (2015) employed a follower-based method to estimate the ideological preferences of 3.8 million Twitter users and compared "retweet" networks to investigate the degree to which liberals were more likely to forward messages written by other liberals, and conservatives were more likely to forward messages written by other conservatives. We focused on retweets because when one Twitter user passes on another's message it is reasonable to assume that she was exposed to the message and actually read it, although it is not necessarily the case that she liked or agreed with it. We explored the degree of network homophily (or polarization) as a function of the ideology of the user (the person sending the retweets) for 12 different topics, including some overtly political topics, some nonpolitical topics, and some topics (like the mass shooting at an elementary school in Newtown, CT) that started out resembling a nonpolitical topic but became politicized over time. As illustrated in Figure 16, people were more likely to retweet messages written by someone who shared their own ideology (than not), but for 11 of the 12 issues we investigated, there was a statistically significant asymmetry: Liberals were more likely than conservatives to engage in cross-ideological dissemination of both political and nonpolitical information. These results—and those of Boutyline and Willer (in press), who

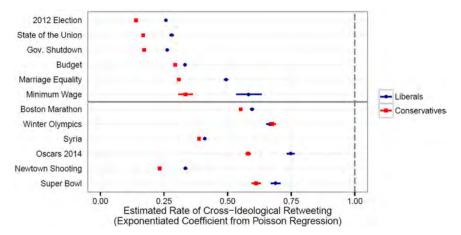


Figure 16. An ideological asymmetry in the rate of cross-ideological retweeting behavior for 11 (of 12) different topics of communication. This figure is adopted from Barberá et al. (2015). Each point in the figure corresponds to an exponentiated coefficient of a Poisson regression for each topic and ideological group. The lines indicate confidence intervals at the 99.9% level, some of which are invisible because of the very large sample size of tweets. The dashed vertical line corresponds to a value of 1, which would indicate identical retweeting rates for individuals of the same vs. different ideological orientations. In the statistical model, we adjusted for marginal rates of retweeting by liberals and conservatives and their likelihood of being retweeted. [Color figure can be viewed at wileyonlinelibrary.com]

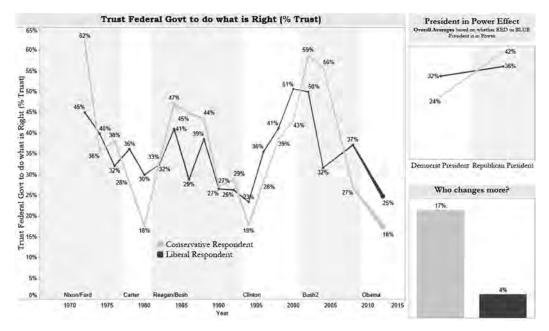


Figure 17. An ideological asymmetry in "Trust in the Federal Government to Do What Is Right" as a function of the "President in Power" (1972–2014).

Source. This figure was prepared by Vishal Singh and is based on data from Morisi et al. (2017).

observed a very similar pattern with respect to social network structure—suggest that there may be an important ideological asymmetry when it comes to information exposure and the structures and functions of online political networks.

In another research program we have focused on trust-in-government and the "President-in-power" effect. It addresses some of the themes taken up by Hetherington and Rudolph (2015) in a book entitled *Why Washington Won't Work*. These authors argued that "people whose party is out of power have almost no trust in a government run by the other side" and that there is no longer any trust to be found "among the opposition," that is, when one's own preferred party is out of office. Insofar as democracy depends, at least in part, on electoral losers' willingness to accept the will of the majority, this seems like an extremely important point to make, and it fits with much of what we know about partisanship, social identification, and symmetrical forms of intergroup bias. But what if partisan biases are not so symmetrical?

Morisi, Singh, and Jost (2017) analyzed data from the American National Election Studies, the General Social Survey, and the Pew Survey to investigate whether citizens are more trusting of the government when their own party (vs. an opposing party) holds the presidency, and whether liberals and conservatives might differ in this regard. We discovered an asymmetry that scholars of American politics have been slow to recognize (but see Grossmann & Hopkins, 2016, for an important exception). In Figure 17, we have plotted liberal and conservative respondents' degree of "trust in the federal government to do what is right" since Richard Nixon's presidency. It is true that the relative positions of the lines change quite a bit as a function of whether there is a Republican or Democratic president in office. Aggregating across different waves of the survey (and incorporating a number of adjustment variables to rule out potential confounds), we see clear evidence of an ideological asymmetry when it comes to the "President-in-Power" effect. Conservative respondents were 17% more likely to trust the federal government to "do what is right" and 14% more likely to trust that the federal government is "run for the benefit of all" when there was a Republican (vs. Democratic) president

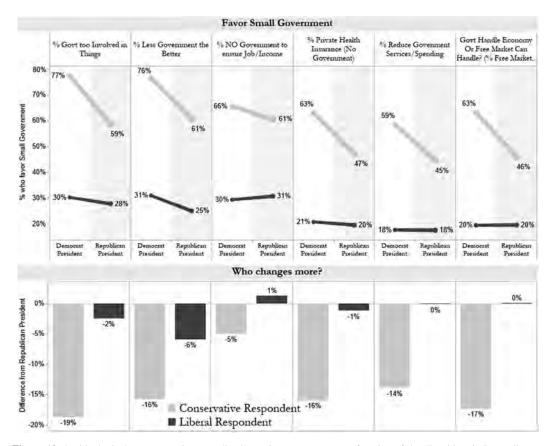


Figure 18. An ideological asymmetry in generalized trust in government as a function of the "President in Power." *Source*. This figure was prepared by Vishal Singh and is based on data from Morisi et al. (2017).

(see Figure 18). Liberals, by contrast, were equally trusting of the federal government whether there was a Democrat or Republican in the White House.

It is often taken for granted that conservatives adopt a principled stand for "small government," but what if conservatives are far more zealous about "small government" when there is a Democratic president in office? Our analyses suggest that conservatives were 14% more likely to favor reductions in government services and spending, 16% more likely to agree that "less government is better," and 19% more likely to say that the "government is too involved in things" when the government was headed by a Democrat as opposed to a Republican. In addition, conservatives were 17% more likely to state that the "free market can handle" things without governmental interference when there was a Democratic (vs. Republican) president. Liberals' attitudes about the size of government, in contrast, were unaffected by the president in power (see Figure 19). Surely there are significant long-term implications for democracy if one "side" is consistently more likely to "defect," while the other is more likely to "cooperate," in the language of game theory. Along similar lines, Van Lange, Bekkers, Chirumbolo, and Leone (2012) conducted a series of behavioral games and observed that liberals in Italy and the Netherlands were more likely to adopt prosocial strategies, whereas conservatives in these countries adopted individualistic and competitive strategies. If differences such as these turn out to be robust and generalizable to other behavioral domains, the practical implications of ideological asymmetries would be legion.

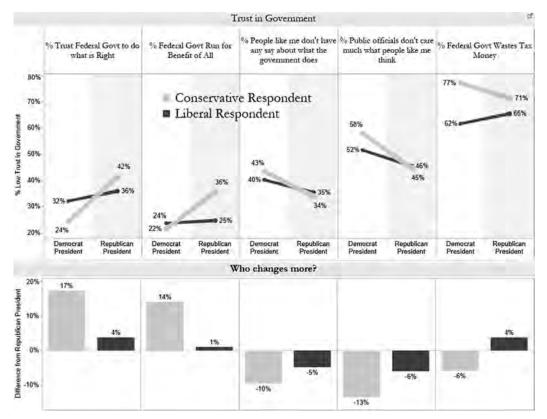


Figure 19. An ideological asymmetry in preferences for small government as a function of the "President in Power." *Source*. This figure was prepared by Vishal Singh and is based on data from Morisi et al. (2017).

Concluding Remarks

I have noticed over the years that some political psychologists, including those with strong political views of their own, seem uncomfortable with the notion that there are important psychological differences between liberals and conservatives (or leftists and rightists). To me, this is as perplexing as a cultural psychologist who is uncomfortable with the notion that there are meaningful cross-cultural differences in human behavior. Investigating the ways in which the individual's motives and cognitions lead him or her to be attracted or repulsed by certain ideological messages—and the reciprocal ways in which immersion in certain ideological environments shapes the individual's thoughts, feelings, and goals—should be our "bread-and-butter." It is the very essence of political psychology, it seems to me.

More perplexing still, I have found that some critics express their objections in moralistic terms—as if there is something uncouth or perhaps even unethical about studying ways in which people on the left and right differ with respect to, say, open-mindedness or sensitivity to threat or prejudice—and that there is something noble about downplaying such differences. Some have even gone so far as to imply that researchers who document ideological asymmetries are "biased," whereas those who highlight symmetries are not. This is a fallacious form of reasoning, to put it politely. One can just as easily be biased against seeing differences that are truly there as one can be biased in favor of seeing differences that are not there. At the end of the day, any talk of "bias" in the absence of standards for assessing accuracy is utterly incoherent, but, unfortunately, this is how the discourse often

proceeds. Matters are made more complicated by the fact that it is part of our job as political psychologists to establish the standards for assessing judgmental accuracy in the first place.

Nevertheless, one persistent objection is that psychological descriptions of conservatives sound "worse" than descriptions of liberals. There are at least two problems with this objection. First, it is not necessarily the case that everyone regards desires for order, structure, and closure as "bad" or that it is "good" to be open-minded or loyal to the opposition. Some, like G.K. Chesterton, maintain that: "Merely having an open mind is nothing. The object of opening the mind, as of opening the mouth, is to shut it again on something solid." And others could say, quite legitimately, that if you are not afraid of death, then you are not paying attention.

But a second response to this objection is "So what?" It is not the role of the social scientist to flatter people or to be equally flattering to the left and the right, although some authors have implied that it is. It is plainly not in the interest of the scientific community for researchers to engage in self-censorship. And, as noted above, researchers developed most of the instruments for measuring epistemic, existential, and relational motives long before they realized that ideological asymmetries existed with respect to these variables. It would be a perverse, truly unscientific kind of "political correctness" to demand that researchers change the names of their variables the moment that differences between liberals and conservatives are discovered.

Of course, I realize that we are all potentially susceptible to a wide variety of biases, and that all human knowledge is knowledge from some perspective (McGuire, 1985)—in the obvious sense that "knowledge is often produced collaboratively, by members of a social group, [and] contingent facts about that group may explain why it shows an interest in certain questions over others" (Boghossian, 2006, p. 20). At the same time, scientists are committed to the philosophical doctrine that "many *facts* about the world are independent of us, and hence independent of our social values and interests" (p. 20). For political psychologists, there is no suitable alternative to relying on scientific methods—although they are fallible and always under refinement—to do the very best we can to arrive at a reasonably objective understanding of the facts as they are.

Gunnar Myrdal (1969) liked to say, "Facts kick": "Even if one begins with views distorted opportunistically on a particular problem, the pursuit of social research itself will gradually correct these views" (p. 40). We should try to do everything we can to rise above our own shortcomings, but we must always keep in mind that our duty is to the fact of the matter—not to the political center, which is understood in historically and culturally relative terms, and not to majority opinion in society either. Science, it seems to me, is only useful when it is leading the way, challenging "common sense," not when it is following orders or chasing behind. And to be successful in this endeavor, we are obliged to do away with pieties that serve no greater cause than that of moral and political relativism. Logically speaking, some sociopolitical outlooks simply *must* be closer to the truth than others.

My own view is that if political psychologists have anything at all to contribute to the development of a good society, and I firmly believe that they do, it is not "Swiss-style neutrality," as comfortable as that may be for people living in Switzerland. In times of trouble, as Elie Wiesel knew all too well, "Neutrality helps the oppressor, never the victim. Silence encourages the tormentor, never the tormented." At any rate, as Myrdal (1969) and many others have pointed out: "A 'disinterested' social science has never existed and, for logical reasons, can never exist" (p. 55). Still, we can strive to be "honest brokers," as Alice Eagly (2014) put it recently—to bring theory and evidence to bear on even the most difficult and controversial questions that bewilder and polarize our societies.

It is one of the primary responsibilities of the social scientist to consider things critically, even (or perhaps especially) when there is immense pressure in society to see them uncritically, to accept them as they are (see also Bottomore, 1975; Gouldner, 1970; Railton, 1991; Sears, 1994; Smith, 1969). I have not always had the intestinal fortitude to enter the fray, but I suspect that some of the least comfortable moments of my career may have been the moments in which I was most potentially useful to society. It seems to me now that the stir caused by the publication of our article in 2003 on "Political

Conservatism as Motivated Social Cognition" may have contributed to a deeper understanding of political psychology by, among other things, opening the door to the falsification of alternative explanations. I continue to believe that there are important asymmetries (as well as symmetries) when it comes to political ideology, but I would welcome further refinements and qualifications, as long as they are scientifically grounded.

I am often reminded of a book by Robert Lynd, published in 1939, called *Knowledge for What?* Lynd argued that the role of the social scientist was to be a "constructive troublemaker," to "disconnect the habitual arrangements by which we manage to live along, and to demonstrate the possibility of change in more adequate directions." There are plenty of other roles we serve, but the importance of this one, it seems to me, is reaffirmed with each new day's set of newspaper headlines. We have come to expect staunch resistance in certain quarters.

And in some countries, such as Turkey, "liberal" social scientists are threatened with the loss of their jobs or their freedom simply for giving voice to their consciences or for criticizing the government (Bohannon, 2016). History teaches us that politically motivated attacks on intellectual freedom can happen almost anywhere. In the immediate aftermath of Donald Trump's presidential election, some conservatives in the United States set up an online "Professor Watchlist" to denounce the activities of liberal academics. So let us roll up our sleeves, work together, disagree if and when we must, but make sure that none of us gets into too much trouble while we are doing precisely what it is that we—as political psychologists—are supposed to be doing. Our future, quite literally, depends upon it.

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