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ARE CONSERVATIVES MORE SENSITIVE TO THREAT THAN LIBERALS? IT DEPENDS ON HOW WE DEFINE THREAT AND CONSERVATISM

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The motivated social cognition and negativity bias perspectives each posit that threat is especially related to political conservatism, such that threat causes people to adopt politically conservative beliefs, and that political conservatives are especially responsive to threatening stimuli. In this review, I argue that there is a kernel of truth to these perspectives, but that they each define both "threat" and "conservatism" too broadly. I review evidence supporting a Compensatory Political Behavior (CPB) Model, which posits that whereas liberals and conservatives are similarly influenced by and responsive to *meaning* threats, conservatives, and in particular *social* conservatives, are differentially influenced by and responsive to *physical* threats. The CPB model suggests that whereas some political beliefs are more deeply rooted in psychological predispositions, others reflect more surface-based ideological motives. I conclude with suggestions for future research to test the model's predictions regarding the relationship between threat and political ideology.

Keywords: political ideology; threat; motivated social cognition; negativity bias

Are political conservatives more sensitive to threat than political liberals? The dominant perspectives within political psychology suggest that the answer is "yes." In one of the most influential papers published in political psychology in the last 15 years (cited over 2,300 times as of July, 2016, according to Google Scholar), Jost, Glaser, Kruglanski, and Sulloway (2003) argue that people adopt political conservatism in order to manage uncertainty and threat. As ideological belief systems, political conservatism traditionally emphasizes social control and social inequality, whereas political liberalism emphasizes more equal access to institutions

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across members of society (Feldman, 2013; see also Jost et al.'s, 2003 descriptions of conservatism as resistance to change and acceptance of inequality, and liberalism as acceptance of change and rejection of inequality).

According to Jost et al.'s (2003) motivated social cognition (MSC) perspective, people adopt politically conservative positions either through chronic (i.e., dispositionally heightened needs for closure or perceptions of threat) or acute (i.e., experiences of uncertainty or threat) need fulfillment. Jost et al. (2003) presented meta-analytic evidence that epistemic motives for uncertainty management (e.g., needs for closure and structure; avoidance of ambiguity) and existential motives for threat management (e.g., greater loss aversion, death anxiety, fearfulness, perceptions of a dangerous world) are associated with political conservatism. From this perspective, situations that threaten epistemic or existential needs should lead to a "conservative shift" in political preferences.

The MSC perspective is also reflected in Hibbing, Smith, and Alford's (2014) negativity bias (NB) perspective.[1] Hibbing et al. (2014, p. 299) argue that "variations in physiological and psychological responses to [negative (or aversive)] stimuli correlate with political orientations." They reviewed an extensive research literature suggesting that conservatives are especially responsive to negative stimuli and events (e.g., negatively valenced and arousing images; Dodd, Balzer, Jacobs, Gruszczynski, Smith, & Hibbing, 2012), a relationship borne out with longitudinal (e.g., Bonanno & Jost, 2006) as well as physiological (e.g., Oxley et al., 2008) and neurological (e.g., Amodio, Jost, Master, & Yee, 2007) evidence. Thus, both the MSC and NB perspectives posit that conservative political preferences derive from deep-seated psychological or physiological needs to manage threat and other potentially negative circumstances, and a conservative shift following threat is consistent with both perspectives (Hibbing et al., 2014, p. 304). Like the NB perspective, the MSC perspective also anticipates that conservatives will be more responsive than liberals to threat, inasmuch as conservatives should be especially motivated to gain epistemic closure in the face of such threats (Nam, Jost, & Van Bavel, 2013) and are more likely to perceive threat in the environment (e.g., dangerous world beliefs; Jost et al., 2003).

The MSC and NB perspectives each use broad operationalizations of both "threat" and "conservatism." For instance, Hibbing et al. (2014, p. 303) argue that, "In many respects, compared with liberals, conservatives tend to be more psychologically and physiologically sensitive to environmental stimuli generally but in particular to stimuli that are negatively valenced, whether threatening or merely unexpected and unstructured." Such stimuli include but are not limited to outgroups (p. 303), disgusting or purity-violating events/stimuli (p. 301), angry faces (p. 301), uncertainty and ambiguity (p. 303), and unpleasant and surprising auditory prompts (p. 302). Further, adopting various types of conservative policy positions (e.g., social and economic) in the face of various types of threat (e.g., threats

1. Indeed, Hibbing et al. (2014, p. 299) explicitly recognize the NB perspectives' intellectual origins in the MSC perspective.

to closure, structure, fear of death) has been considered consistent with the MSC perspective (Jost et al., 2003; Nam et al., 2013).

I argue that there is likely a kernel of truth to the MSC and NB perspectives, but that they each construe both "threat" and "conservatism" too broadly. Specifically, the present review suggests that the strongest evidence for the MSC and NB perspectives comes from studies in which threat is operationalized as perceived or actual *physical* harm or danger *and* when conservatism is operationalized using measures of *social* rather than economic political positions or identification. Although there are exceptions, such studies more or less show greater responses to threat among conservatives (i.e., ideological asymmetry). However, outside these particular conditions, the evidence is much more mixed, and appears to suggest that liberals and conservatives respond similarly to threat (i.e., ideological symmetry). Based on the reviewed evidence, I offer a theoretical model of compensatory political behavior, and I conclude with future directions for better understanding the relationship between threat and political ideology.

HOW DO WE DEFINE "THREAT"?

Scholarship linking conservatism to threat and negative stimuli/events[2] have used a broad array of operationalizations of "threat" and "negative stimuli/events" such as disgust and disgusting images (Inbar, Pizarro, & Bloom, 2009; Smith, Oxley, Hibbing, Alford, & Hibbing, 2011), disorder (Jost, Nosek, & Gosling, 2008), uncertainty (Thorisdottir & Jost, 2011), out-groups (Hibbing et al., 2014), belief-inconsistent information (Nam et al., 2013), death anxiety (Jost et al., 2007), death reminders (Landau et al., 2004), terrorism reminders (Nail & McGregor, 2009), and startlingly loud noise (Oxley et al., 2008) to name a few.

In this article, I distinguish between *meaning threats* and *physical threats*. This distinction follows the one between threats to "systems of meaning and value" and threats to "existential realities" offered by Pyszczynski, Greenberg, and Koole (2004). Meaning threats include more abstract concerns regarding the violation of one's senses of belonging, identity, purpose, significance, continuity, or certainty. On the other hand, physical threats include more concrete concerns regarding the violation of one's physical safety and well-being through the potential of death or other physical trauma. Whereas both meaning and physical threats motivate palliative steps on the part of the individual to reduce the discomfort caused by the threat (for a review, see Proulx, Inzlicht, & Harmon-Jones, 2012), meaning and physical threats appear to arouse differential emotional responses. Specifically, whereas meaning threats induce anxious uncertainty from violations of expected relationships (Proulx & Inzlicht, 2012), concrete physical threats to physical safety are more associated with fear (Gray & McNaughton, 2000; Kanai, Feilden, Firth,

2. Because the experience of threat is considered negatively valenced and arousing (Proulx, Inzlicht, & Harmon-Jones, 2012), and Hibbing et al. (2014, p. 303) recognize that negative stimuli/events can be threatening, I use the term "threat" to include the types of negatively valenced and arousing stimuli and events proffered by the NB perspective.

& Rees, 2011). Political conservatism has been tied to both meaning threats (e.g., Lammers & Proulx, 2013; Nail, McGregor, Drinkwater, Steele, & Thompson, 2009, Study 1; Nam, Jost, & Van Bavel, 2013) and physical threats (e.g., Oxley et al., 2008; Smith et al., 2011).

MEANING THREATS

Although the MSC and NB perspectives argue that conservatives should be more sensitive and responsive to threats caused by such meaning violations, theoretical perspectives on meaning violations are either agnostic regarding ideological variation in response to them, or explicitly argue for ideologically symmetrical responses to meaning violations (Kosloff, Greenberg, Weise, & Solomon, 2010; Proulx et al., 2012; Randles, Inzlicht, Proulx, Tullett, & Heine, 2015). Below I review evidence that contrary to the MSC and NB perspectives, liberals and conservatives respond similarly to meaning threats—specifically, to belief-inconsistent and general meaning threats.

Responses to Belief-Inconsistent Threats. Information, events, or experiences that are incongruent with one's prior beliefs or expectations can represent threats to important values, beliefs, and identities (Proulx & Heine, 2010). As such, people adopt motivated reasoning strategies to manage such experiences, from avoiding belief-inconsistent information in favor of belief-consistent information (i.e., selective exposure), favorably judging belief-consistent information relative to belief-inconsistent information (i.e., biased assimilation), and avoiding or derogating out-groups with dissimilar values and beliefs.

From the MSC and NB perspectives, conservatives should be especially likely to engage in the above processes in order to manage the threats to meaning that they pose. To be sure, there is evidence linking conservatism to these motivated reasoning processes. For example, Nam et al. (2013) found that conservatives were less likely than liberals to write belief-inconsistent essays (i.e., praising a disliked American president; see also Barberá, Jost, Nagler, Tucker, & Bonneau, 2015 for evidence of greater selective exposure on Twitter among conservatives). Other research suggests that conservatives are more likely than liberals to reach belief-consistent conclusions, such as ignoring inconsistencies between ostensibly contradictory beliefs (e.g., opposing abortion but supporting the death penalty; Critcher, Huber, Ho, & Koleva, 2009). Further, conservatism and related constructs have been linked to prejudice toward a variety of social out-groups (e.g., African Americans; immigrants, gay men and lesbians; Crawford, Brandt, Inbar, & Mallinas, 2016; Dhont & Hodson, 2014; Sibley & Duckitt, 2008).

There is, however, evidence that points more toward ideological symmetry in these processes. In a classic paper on selective exposure, Taber and Lodge (2006) found no differences in selective exposure between gun control and affirmative action proponents and opponents. Several others studies show patterns of ideological symmetry in selective exposure (e.g., Iyengar & Hahn, 2009; Messing & Westwood, 2012; see Bakshy, Messing, & Adamic, 2015 for greater selective exposure on Facebook among liberals). Lavine, Lodge, and Freitas (2005) found that

under normal conditions, people on the left and right were equally likely to engage in selective exposure; however, under a morality salience induction, people on the right were more likely than those on the left to selectively expose—a threat "double-whammy" of sorts. Whereas Nam et al. (2013) found that conservatives were less willing to write belief-inconsistent essays, even in the absence of the threat double-whammy, in one close and three conceptual replications of Nam et al. (2013), Collins, Crawford, and Brandt (2016) observed ideological symmetry in selective exposure tendencies. Thus, there is certainly inconsistency in the literature; however, enough evidence for symmetry (and even for greater bias among liberals; Bakshy et al., 2015) exists to cast doubt on broad-based support for the MSC and NB perspectives in selective exposure.

Other evidence indicates that liberals and conservatives are equally likely to engage in biased assimilation. In a seminal paper, Lord, Ross, and Lepper (1979) found that death penalty proponents and opponents were equally likely to endorse belief-consistent information over inconsistent information. Taber and Lodge (2006) observed similar effects on gun control and affirmative action. Crawford, Jussim, Cain, and Cohen (2013) found that people on the left (but not on the right) were more skeptical of belief-inconsistent than belief-consistent articles, even when those belief-inconsistent articles were more factually true (for evidence of equivalent biases on the left and right to the types of articles used by Crawford et al., 2013, see Crawford, Brandt, Proulx, & Malka, 2016; for additional evidence of stronger biased assimilation effects on the left, see Vallone, Ross, & Lepper, 1985). In a recent meta-analysis of the available evidence, Ditto, Liu, Clark, Wojcik, Chen, Grady, & Zinger (2015) find that there are no ideological differences in biases against belief-inconsistent information. In total, the evidence suggests that liberals and conservatives are equally motivated to protect themselves from threats to identity and values posed by belief-inconsistent information.

Finally, Brandt, Reyna, Chambers, Crawford, and Wetherell (2014) have noted that studies purporting a link between conservatism and out-group prejudice have only observed such a link because they have disproportionately selected left-wing and left-aligned groups as targets of prejudice. Several recent studies including both left-wing (e.g., gay men and lesbians, welfare recipients) and right-wing (Evangelical Christians, investment bankers) target groups have found that liberals and conservatives express prejudice against their own ideological out-groups, to equal degrees (Chambers, Schlenker, & Collison, 2013; Iyengar & Westwood, 2014), and that these expressions of prejudice are driven in part by meaning threats (e.g., threats to one's values, beliefs, and identities; Crawford, 2014; van Prooijen, Krouwel, Boiten, & Eendebak, 2015).

Responses to General Meaning Threats. The studies reviewed above each examined people's responses to threats to specific political or social identities, values, and beliefs. Other research examines people's responses to more general meaning threats in the form of violated expectations in continuity, such as randomness, uncertainty, lack of control, and unexpected events. Some of this research has utilized explicitly political outcome variables (e.g., political identification). For example, Randles et al. (2015) find that meaning violations (induced through surrealist vid-

eo) led both opponents and proponents of affirmative action programs to reaffirm their prior beliefs. Evidence that acetaminophen has a palliative effect on meaning violations suggests that meaning threats are negatively arousing (Randles, Heine, & Santos, 2013). The fact that liberals and conservatives respond similarly to meaning violations is therefore inconsistent with the NB perspective.

Other research has examined outcome variables that have been interpreted as ideological in nature by some, but that do not necessarily affirm liberal or conservative values per se. For example, Kay and colleagues' work on compensatory control shows that when people experience a lack of control, they are motivated to endorse systems and institutions (e.g., religious, governmental, or social-hierarchical) that can functionally provide this lost sense of control. Specifically, Kay, Gaucher, Napier, Callan, and Laurin (2008) show that induced lack of control increases belief in a controlling God and support for government's stabilizing role, at least among people who believe the government is benevolent (for a review, see Kay, Whitson, Gaucher, & Galinsky, 2009).

Some scholars have interpreted this evidence as support for conservative shift[3] (e.g., Jost, Nam, Amodio, & Van Bavel, 2014; Nail et al., 2009); however, it is questionable whether these outcomes can be considered "conservative." Belief in God is not necessarily a conservative position when only 7.1% of Americans self-identify as atheists or agnostics (Pew Research Center, 2015). Further, given that control of the government vacillates between the two major political parties in the U.S., outcome measures such as "defense of the government" (Whitson, Galinsky, & Kay, 2015) cannot be taken as face-valid measures of political conservatism. In fact, inconsistent with the "conservative shift" interpretation, recent evidence suggests that when system-justifying motives are activated, both right-leaning (i.e., meritocratic) or left-leaning (i.e., egalitarian) values can be endorsed when said values have been primed (Zhu, Kay, & Eibach, 2013).

PHYSICAL THREATS

The reviewed evidence that liberals and conservatives respond similarly to belief-specific or general meaning threats casts doubt on the MSC and NB perspectives. That said, one particular category of threat appears to offer more consistent support for the MSC and NB perspectives. Specifically, studies that operationalize "threat" as *physical harm or danger* appear to more reliably elicit the threat-conservatism relationship posited by the MSC and NB perspectives.

Some scholars have previously advanced the idea that liberals and conservatives may be responsive to only some types of threats. For instance, Brandt, Wetherell, and Reyna (2014) suggest that a negativity bias may underlie the "development" of a conservative ideology, but that liberals and conservatives respond similarly to "psychological" threats. More to the point, in their comment on Hibbing et al.'s (2014) negativity bias theory, Lilienfeld and Latzman (2014, p. 319) argue that the

3. Kay and colleagues have been careful not to interpret findings of compensatory control in these domains as evidence of a conservative shift.

"principle difference" between liberals and conservatives is in conservatives' relatively greater sensitivity to "reasonably clear-cut threats"—what they call a "fear bias." To support this argument, Lilienfeld and Latzman (2014) review evidence that Negative Emotionality (parallel to trait anxiety) is related to excessive attention to negative stimuli, whereas Constraint (parallel to trait fear) is related to fearfulness and response inhibition. They argue that Hibbing et al.'s (2014) NB perspective is too broad, as Negative Emotionality/anxiety is typically unrelated to ideology, whereas Constraint/fear *is* related to political conservatism. Specifically, attention to negative stimuli (and thus Negative Emotionality) is associated with clinical depression (Chiu & Deldin, 2007), and political orientation is generally not associated with psychological well-being (Onraet, van Hiel, & Dhont, 2013; but see Napier & Jost, 2008). Further, the Big Five trait correlate of Negative Emotionality (i.e., Neuroticism) has generally been uncorrelated with ideology (Carney, Jost, Gosling, & Potter, 2008; Sibley & Duckitt, 2008; but see Gerber, Huber, Doherty, Dowling, & Ha, 2010 for evidence that liberals are higher in Neuroticism). Further, increased gray matter in the right amygdala, which is linked to fearfulness (van der Plas, Boes, Wemmie, Tranel, & Nopoulos, 2010), has been associated with conservatism (Kanai, Feilden, Firth, & Rees, 2011).

Such evidence is consistent with the notion that meaning threats, which elicit anxious uncertainty (Proulx & Inzlicht, 2012), would elicit negative responses and compensatory behavior similarly across the political spectrum. On the other hand, the Big Five trait correlates of Constraint (low Openness and high Conscientiousness) *are* related to political conservatism (e.g., Carney et al., 2008; Sibley & Duckitt, 2008), supporting the idea that conservatism may be more strongly associated with fear, a common emotional response to physical threats (Kanai et al., 2011; Lilienfeld & Latzman, 2014).

Several recent studies using self-reported, behavioral, and physiological responses to physically threatening stimuli offer some support for the prediction that conservatives are more affected by physical threats that induce fear. In one of the first demonstrations of a link between political conservatism and physiological arousal following physical threats, Oxley et al. (2008) observed a relationship between support for "socially protective policies" and both eye-blink rates following a startlingly loud noise and skin conductance following threatening images (bloody wounds, maggots, and menacing spiders; see also Dodd et al., 2012). Other subsequent findings suggest that conservatism is associated with quicker reaction times to negatively valenced words and images compared to positively valenced words and images (Carraro, Castelli, & Macchiella, 2011) including angry faces (McLean, Garza, Wiebe, Dodd, Smith, Hibbing, & Espy, 2014), and that compared to liberals, conservatives more quickly notice, look longer at, and have greater changes in skin conductance following exposure to negatively arousing and disgusting images (Dodd et al., 2012; Smith et al., 2011). Other related evidence finds that conservatism is also consistently associated with greater disgust sensitivity (e.g., Crawford, Inbar, & Maloney, 2014; Inbar, Pizarro, & Bloom, 2009; Terrizzi, Shook, & Ventis, 2010; see Terrizzi, Shook, & McDaniel, 2013 for a review), suggesting that conservatives have a stronger desire than liberals to protect the body from contaminants

and other diseases that can cause physical harm (Inbar, Pizarro, Iyer, & Haidt, 2012; but see Tybur, Merriman, Caldwell, McDonald, & Navarette, 2010, who find no link between conservatism and contaminant avoidance).

Recent evidence also suggests that perceived threat of physical harm from outgroups is more important for conservatives than for liberals. Crawford (2014) found that whereas prejudice (as measured with feeling thermometer and social distance ratings) toward both left-wing and right-wing activists is driven by meaning threats (i.e., symbolic threats), the antecedents of political intolerance (i.e., willingness to deny people Constitutionally protected rights) depend on the political orientations of the target groups. Specifically, political intolerance of right-wing activists was driven by perceptions that the group threatens the rights of others, whereas critically, political intolerance of left-wing activists was driven by perceptions that the group is a threat to physical safety. These findings nicely illustrate ideological symmetry in meaning threats but ideological asymmetry in threats to physical safety.

THE CURIOUS CASE OF DEATH REMINDERS

Many studies have examined the impact of death reminders on people's attitudes and behavior. Death reminders present an interesting and challenging case in this research literature. Obviously, death reminders can potentially represent a physical threat to participants. However, terror management theorists have long held that death reminders primarily represent threats to one's cultural worldviews (Greenberg, Solomon, & Pyszczynski, 1997), and thus are more like threats to meaning brought on by the uncertainty of death. Work by Proulx and colleagues on the Meaning Maintenance Model (MMM; Proulx & Inzlicht, 2012; Proulx et al., 2012) also situate death reminders as threats to meaning that elicit palliative compensatory behaviors.

How are political beliefs affected by death reminders? Some of the earliest terror management studies showed increased in-group favoritism (Greenberg, Pyszczynski, Solomon, Rosenblatt, Veeder, Kirkland, & Lyon, 1990) and harsher punishments of rule-breakers (e.g., prostitutes; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989) following death reminders compared to control groups. Although such studies have been cited as evidence of conservative shift (e.g., Jost et al., 2003), these outcome variables are not clearly face-valid measures of political conservatism, and the fact that liberals and conservatives express in-group favoritism to equal degrees (e.g., Brandt et al., 2014) casts doubt on this interpretation. Further, other studies show that rather than a uniform conservative shift, people affirm their prior sociopolitical beliefs when confronted with their own death (Castano, Leidner, Bonacossa, Nikkah, Perrulli, Spencer, & Humphrey, 2011; Kosloff et al., 2010; Vess, Arndt, Cox, Routledge, & Goldenberg, 2009).

Several studies conducted in the aftermath of the terrorist attacks of September 11, 2001 purported to show a "conservative shift" such that Americans, even liberals, increased their support for conservatism following threat. Multiple opera-

tionalizations of threat were used in these studies, including mortality salience and reminders of 9/11 (Landau et al., 2004), comparisons of independent samples of subjects pre- and post-9/11 (Nail & McGregor, 2009), and self-reported attitudinal shifts following 9/11 (Bonanno & Jost, 2006). Several of these studies have been cited as evidence supporting the MSC (Nail et al., 2009; Jost et al., 2003) and NB (Hibbing et al., 2014) perspectives. The problem with many of these studies is that they fail to show an increase in conservative beliefs per se; rather, they suggest increased support for cultural and national symbols and leaders following death reminders and similar stimuli. For example, Landau et al. (2004) found that both 9/11 and death reminders shifted opinion favorably toward then-President Bush (whose 90% job approval immediately post-9/11 very likely qualified him as a national symbol; Gallup, 2016). Further, Nail and McGregor (2009) found only statistically significant differences between the pre-9/11 and post-9/11 groups on support for Bush and increased military spending; other markers of ideology (e.g., attitudes toward socialized medicine, feminists, Republicans, and conservatives) were not significantly different between groups.

Rather than a conservative shift, this above evidence is most consistent with the "rally 'round the flag" effect detailed by Lambert, Scherer, Schott, Olson, Andrews, O'Brien, and Zisser (2010), which is characterized by increased support for national leaders and symbols following national crises motivated primarily by anger against transgressors. In data collected within a few years of the September 11 attacks, participants on both ends of the political spectrum who were exposed to 9/11 reminders came to more strongly endorse national symbols and leaders (e.g., President Bush, Iraq War, American flag) compared to those in control conditions. Importantly, however, Lambert et al. (2010) found that liberals did *not* shift toward conservative policy positions (e.g., gay rights; abortion) following 9/11 reminders.

Despite the fact that Nail and McGregor (2009) and Lambert et al. (2010) failed to find actual shifts toward conservative attitudes, these and other similar studies have been cited as evidence of conservative shift. For example, Thorisdottir and Jost (2011; pp. 788, 797) refer to each of these above papers as evidence of conservative shift. As further support for conservative shift, Thorisdottir and Jost (2011, p. 788) also cite Nail et al. (2009), who purport to show evidence of conservative shift, especially among liberals. However, in Studies 2 and 3, Nail et al. (2009) do not measure political conservatism, but rather "psychological conservatism," operationalized as preference for consistency. Further, their outcome variables (negative reactions toward a U.S. critic post-9/11; belief conviction; anti-gay attitudes) are not clear face-valid indicators of political conservatism. It is also important to remember that historically, rally 'round the flag effects have been observed under both conservative (e.g., George H. W. Bush, George W. Bush) and liberal (e.g., Franklin D. Roosevelt, John F. Kennedy) presidencies (Lambert, Schott, & Scherer, 2011). It is therefore a mistake to interpret such effects during the Gulf War and 9/11 as evidence of conservative shift, just as it would be to interpret similar effects during Pearl Harbor and the Bay of Pigs crisis as evidence of "liberal shift."

Further, an alternative approach to conservative shift evidence suggests that it is actually *inconsistent* with the NB perspective. Specifically, a conservative shift

relies on attitude change among liberals and/or moderates. Some studies show just this effect—indeed, Nail et al.'s (2009) paper is titled, "Threat Causes Liberals to Think Like Conservatives." Further, Landau et al. (2004, Study 3) found increased support for President Bush after 9/11 reminders, but only among liberals, not conservatives, and Lambert et al. (2011) highlight the fact that shifts in support of Bush were observed among liberal participants. However, a shift especially among liberals would imply that liberals are particularly responsive to threat—which is the *opposite* of the NB perspective. Despite this fact, Hibbing et al. (2014, p. 304) interpret purported conservative shift evidence as consistent with their NB perspective.

In sum, death and 9/11 reminders appear to function similarly to meaning threats, and that such threats induce compensatory responses to reduce uncertainty through increased zeal for prior beliefs (e.g., Randles et al., 2015) or national symbols (e.g., Lambert et al., 2010). Most evidence of conservative shift following death reminders may be interpreted instead as rally 'round the flag effects, as most shifts were toward symbols of a superordinate national identity, and did not actually entail shifts toward politically conservative positions (for an exception, see Thorisdottir & Jost, 2011).

HOW DO WE DEFINE "CONSERVATISM?"

There is one important qualification to the conclusion that conservatism is associated with physical threats. Recent research suggests that a unidimensional (i.e., left to right, or liberal to conservative) account of ideology does not adequately capture the complexities of people's political beliefs, as many Americans'[4] beliefs do not neatly fit into exclusively liberal or conservative camps. Instead, recent studies indicates the importance of distinguishing between *social ideologies*, which emphasize traditional moral and cultural issues (with conservatives and liberals favoring greater vs. lesser restriction, respectively, on personal freedom in moral and cultural domains), and *economic ideologies*, which emphasize the role of the government in regulating the economy (with conservatives and liberals favoring lesser vs. greater roles for the government in regulating the economy, respectively). These studies find that there are multiple different types of political belief systems among the American public that do not fit neatly into the unidimensional left–right continuum (e.g., libertarians, populists, moderates; Carmines, Ensley, & Wagner, 2012; Feldman & Johnston, 2014; see Carmines & D'Amico, 2015 for a review) and that involve less than straight-forward combinations of social and economic ideologies (e.g., the social liberalism and economic conservatism associated with libertarianism).

4. Most of the data reviewed below comes from the U.S. context. That said, distinctions between social and economic issues are also important in Eastern and Western European contexts as well (Bilewicz, Cichocka, Gorska, & Szabo, 2015).

Social and economic ideologies appear to have different psychological origins. Needs to manage uncertainty are associated with social conservatism but also economic *liberalism* (Feldman & Johnston, 2014), especially among the most politically disengaged (Federico, Johnston, & Lavine, 2014; Malka & Soto, 2015; Malka, Soto, Inzlicht, & Lelkes, 2014). Further, although the relationship is not perfect, social and economic conservatism respectively map onto right-wing authoritarianism (RWA), which captures people's tendencies toward supporting traditional authority figures and holding traditional values and beliefs (indeed, the Traditionalism or Conventionalism component of RWA explicitly taps into socially conservative values and beliefs; Crawford, Mallinas, & Furman, 2015), and social dominance orientation (SDO), which captures support for stratified power arrangements among social groups (Duckitt & Sibley, 2010; Feldman & Johnston, 2014).[5] Importantly, RWA, but not SDO, originates from a belief in a dangerous world (Duckitt, Wagner, du Plessis, & Birum, 2002; see Duckitt & Sibley, 2010 for a review); further, Constraint/fear orientation is mostly closely tied to low Openness and high Conscientiousness (Lilienfeld & Latzman, 2014), personality traits more strongly associated with social conservatism and RWA than with economic conservatism and SDO (Carney et al., 2008; Sibley & Duckitt, 2008).

Taken together, evidence that social conservatism is more strongly associated with fear-related traits and characteristics suggests that fear-inducing physical threats should either promote greater social conservatism or elicit stronger responses among social conservatives. And indeed, a critical examination of the literature on the physical threat-conservatism relationship is consistent with an account that social conservatives are especially responsive to physical threats. In their response to Hibbing et al.'s (2014) target article, Malka and Soto (2014, p. 321) note that in studies linking political attitudes to physiological variation in threat responses, these physiological reactions appear to only relate to the social rather than economic items included in conservatism measures. Specifically, they note that social but *not* economic attitudes were associated with increased skin conductance or eye-blink responses regarding disgusting or threatening stimuli (Oxley et al., 2008; Smith et al., 2011).[6] Other evidence also suggests that social conservatism is related to responses to threats to potential physical harm. Terrizzi, Shook, and McDaniel (2013) have argued that because social attitudes are more relevant to maintaining group boundaries, maintaining tradition, and avoiding risky sexual behavior than economic attitudes, they should be especially related to disease avoidance. In support of this argument, Terrizzi, Shook, and Ventis (2010) found

5. To my knowledge, there is no available evidence comparing social and economic conservatism to RWA and SDO, respectively. My intuition is that whereas measures of social and economic conservatism focus almost exclusively on policy preferences, RWA and SDO contain both policy preferences as well as expression of personality.

6. Unfortunately, subsequent interpretations of many of these studies paint conservatism with an overly broad brush. For example, whereas Hibbing and colleagues use the term "socially protective policies" rather than "conservatism" in one of their initial papers (e.g., Oxley et al., 2008), and even acknowledge in supportive online materials that physiological responses were not related to economic conservatism, Hibbing et al. (2014, p. 302) subsequently describe the Oxley et al. (2008) findings as pertaining to "conservatism" without the necessary qualification.

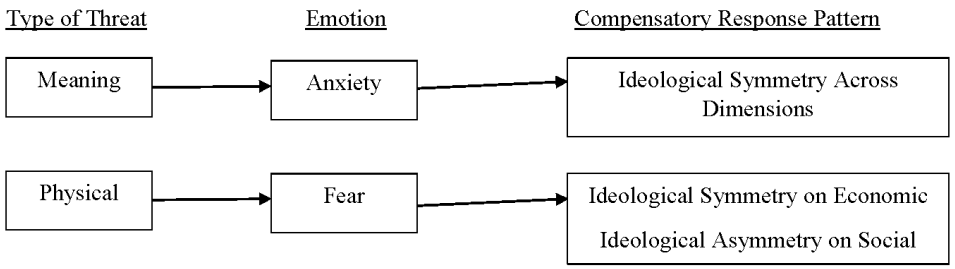

FIGURE 1. The Compensatory Political Behavior (CPB) Model

that people high in RWA are especially prejudiced against gay men and lesbians following a disgust inducement (although they did not include SDO for a comparison). That said, Tybur et al. (2010) found that RWA is more strongly related than SDO to sexual disgust (but inconsistent with Terrizzi et al., 2010, not to pathogen disgust). Other evidence indicates that disgust sensitivity relates more strongly to attitudes toward groups who threaten sexual morality (i.e., socially liberal groups) than left-wing groups unassociated with sexual morality (e.g., gun control supporters; Crawford et al., 2014). Importantly, the limited available evidence indicates that social and economic liberals and conservatives react similarly to *meaning* threats. For example, people high and low in both RWA and SDO (Crawford et al., 2015) and social and economic liberals and conservatives (Crawford, Brandt, Inbar, Chambers, & Motyl, 2016) all respond negatively to ideologically dissimilar out-groups. Further, people low and high in both RWA and SDO engage in biased information processes (Crawford, 2012).

TYING IT ALL TOGETHER: A THEORETICAL MODEL OF POLITICAL DIFFERENCES AND SIMILARITIES IN COMPENSATORY BEHAVIOR

The evidence reviewed above can be used to build a Compensatory Political Behavior (CPB) Model (Figure 1). In this model, meaning threats elicit anxious uncertainty, whereas physical threats elicit fear (Gray & McNaughton, 2000; Kanai et al., 2011; Proulx & Inzlicht, 2012). Given evidence that there are little if any ideological differences in trait anxiety and associated constructs (Lilienfeld & Latzman, 2014), meaning threats should result in ideologically symmetrical compensatory behavior. Evidence from research on selective exposure (e.g., Taber & Lodge, 2006), biased assimilation (e.g., Ditto et al., 2015), and intergroup biases (e.g., Brandt, Reyna et al., 2014) are consistent with this prediction, and though the evidence is scant, suggests that it does not depend on the ideological dimension (i.e., social or economic). On the other hand, the pairing of evidence that conservatism is more strongly associated with fear arousal (Kanai et al., 2011; Lilienfeld & Latzman, 2014) with evidence that social more than economic conservatism is tied to responses to fear-inducing physical threats (e.g., Oxley et al., 2008; Smith et

al., 2011), supports the prediction that physical threats should result in ideologically asymmetrical responses to compensatory behavior, at least along the social ideological dimension. Social but not economic conservatism is implicated in a so-called "fear bias" (Lilienfeld & Latzman, 2014) because of the needs for security and dangerous world beliefs that underlie social conservatism[7] (e.g., Duckit & Sibley, 2010; Malka et al., 2014). Indeed, Hibbing and colleagues' work (i.e., Oxley et al., 2008) have referred to socially "protective" policies and often involve policies aimed at "protecting" traditional societal arrangements and against foreign agents (e.g., immigration; national security).

LIMITATIONS AND FUTURE DIRECTIONS

In this review, I advance the Compensatory Political Behavior Model, which posits that ideological symmetry characterizes people's responses to meaning threats regardless of ideological dimension, but that ideological asymmetry characterizes people's responses to physical threats, such that social (but not economic) conservatives are more responsive to such threats. In essence, this model suggests that a predisposition to avoid potentially physically harmful stimuli and events encourages the adoption of socially conservative political positions. That said, many of the reviewed studies of the threat-ideology relationship did not distinguish between social and economic ideologies (and much less so when examining meaning threats), and none to my knowledge tested both meaning *and* physical threats within the same sample to compare responses to the two types of threats. Thus, no extant experiments exist to test the full set of hypotheses derived from the model. Future research therefore needs to (a) independently manipulate meaning and physical threats, and (b) independently measure social and economic ideologies. Further, compensatory responses have been measured in a variety of ways, including but not limited to biased assimilation (Taber & Lodge, 2006), out-group prejudice ratings (Crawford, 2014), attachment to national and political symbols (Lambert et al., 2010), and endorsement of political positions (Lambert et al., 2010). Researchers should be mindful of these and other considerations when designing studies to understand the threat-ideology relationship.

To be sure, there is extant evidence inconsistent with the CPB model. For instance, research links uncertainty avoidance with political conservatism (Jost et al., 2003), and liberalism to greater mass in the anterior cingulate cortex, which has been linked to increased tolerance of uncertainty (Kanai et al., 2011).[8] If both liber-

7. Although Jost, Napier, Thorisdottir, Gosling, Palfai, and Ostafin (2007) find that dangerous world beliefs are associated with economically conservative positions, these authors did not include a measure of social conservatism in their data for comparison.

8. To be sure, there is debate regarding findings from "political neuroscience" that attempt to understand ideological differences in brain structure and activation (e.g., Jost & Amodio, 2012; Kanai et al., 2011). For instance, skeptics raise doubts regarding potential confounds with political orientation that may explain its relationship to neurological activation in or volume of certain brain structures, and whether it is appropriate to dichotomize the functions of certain brain structures, such as the amygdala and ACC for fear-related and conflict-related responses, respectively (Bickart, Wright, Dautoff, Dickerson, & Barrett, 2011; Miller, 2011; Neurocritic, 2011).

als and conservatives seek to reduce the anxiety resultant from meaning threats, why would conservatism be systematically associated with needs to avoid uncertainty? Much evidence for the MSC and NB perspectives draws on relationships between self-reported measures of individual differences in uncertainty avoidance (openness to experience; need for cognitive closure, dogmatism) and political ideology. However, it is possible that some of these measures may artificially inflate this relationship due to outcome-predictor content overlap (see Conway et al., 2016, for evidence of this phenomenon with dogmatism; see Charney, 2015 for discussion of this content overlap problem regarding Openness, and Sibley & Duckitt, 2008 for supportive evidence). Indeed, Van Hiel, Onraet, and De Pauw (2010) observed much smaller uncertainty-ideology relationships in their meta-analysis of behavioral indicators of uncertainty relative to Jost et al.'s (2003) meta-analysis, which predominantly utilized self-reported uncertainty measures. Thus, the relationship between uncertainty avoidance may be smaller than reported (meta-analytic r = .28; Jost et al., 2003), and these small ideological differences observed in self-report measures may simply be overcome when liberals and conservatives are confronted with situations in which their beliefs are challenged (e.g., exposure to belief-inconsistent information). Future studies should examine the possibility that ideological differences in self-report measures (e.g., need for cognitive closure) may not manifest on behavioral measures of meaning threat (e.g., selective exposure decisions; Nam et al., 2013) and physical threat (e.g., skin conductance; Oxley et al., 2008).

Lambert, Eadeh, Peak, Scherer, Schott, and Slochower (2014) demonstrate that whereas participants generate both more anxiety-related and fear-related words following a mortality salience induction compared to a control condition, fear-related word generation is more robust than anxiety-related word generation under mortality salience. One possibility is that there are ideological differences in whether death reminders elicit anxiety or fear, with the possibility that social conservatives are more likely than other groups to react to death reminders with fear. Alternatively, it may be that ideologically symmetrical patterns emerge among those who write more about anxiety, whereas ideologically asymmetrical patterns emerge among those who write more about fear. Future research will need to systematically explore ideological differences in emotional reactions to death reminders.

Several extant models exist for understanding how people respond to different types of threats. For example, Kenrick, Griskevicius, Neuberg, and Schaller (2010) identify various motivational systems such as esteem/status and self-protection, which may be heightened under meaning and physical threats, respectively. Kenrick et al.'s (2010) work is not explicitly connected to political beliefs, but is not inconsistent with the CPB model. Other work is more explicitly political: for instance, Onraet, van Hiel, Dhont, and Pattyn (2013) distinguish between internal threats (i.e., those that solely affect the individual) and external threats (i.e., those that affect both the individual and society), finding that whereas both are related to right-wing politics, external threats have the most predictive utility. One problem with this work, however, is that many of the measures of external threat used

by Onraet et al. (2013) mention specific groups (e.g., perceived threat from immigrants) that are themselves politically charged. Other work more capable of testing liberal–conservative differences in threat responses (e.g., Crawford, 2014) shows that liberals and conservatives perceive threats from ideologically dissimilar groups to equal degrees. Future theoretical development could seek to integrate these and other relevant models of threat perception.

One potential implication of the CPB model is that political orientation on the social (rather than economic) dimension may be more deep-seated, as such attitudes vary as a function of people's responses—attitudinally, behaviorally, and physiologically—to physical harm or danger, and basic fight or flight responses (Gray & McNaughton, 2000). This conclusion is consistent with evidence that political identification is more likely to be based on one's social than economic attitudes (Feldman & Johnston, 2014), personal values more strongly underlie social than economic attitudes (Malka et al., 2014), that the most divisive moral foundations are those most relevant to social attitudes (authority and purity/sanctity; Graham, Haidt, & Nosek, 2009), and that social issues are "easier" and more "gut-level" than economic issues (Johnston & Wronski, 2015). Future research could test this possibility.

Finally, researchers should approach these questions not in isolation, but through large-scale collaborative scientific efforts. Given the various operationalizations of the threat and ideology constructs, and the differing viewpoints on the threat-ideology relationship itself, this may be easier said than done; however, this area of research is ripe for respectful adversarial collaboration (Mellers, Hertwig, & Kahneman, 2001). Further, a Many Labs-style approach (Klein et al., 2014) in which multiple labs conduct identical or similar studies, along with the pre-registration of hypotheses and materials (Open Science Collaboration, 2015) could potentially offer reliable evidence regarding the threat-ideology relationship.

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