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Threat causes liberals to think like conservatives



# Threat causes liberals to think like conservatives

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## ABSTRACT

In Study 1, politically liberal college students' in-group favoritism increased after a system-injustice threat, becoming as pronounced as that of conservatives. Studies 2 and 3 conceptually replicated these results with low preference for consistency [Cialdini, R. B., Trost, M. R., & Newsom, J. T. (1995). Preference for consistency: The development of a valid measure and the discovery of surprising behavioral implications. *Journal of Personality and Social Psychology*, 69, 318–328.] as a dispositional measure of liberalism. In Study 2, following a mortality salience threat, dispositionally liberal students showed as much conviction in their attitudes toward capital punishment and abortion as dispositional conservatives did. In Study 3, after a mortality salience threat, liberal students became as staunchly unsupportive of homosexuals as conservatives were. The findings that political and dispositional liberals become more politically and psychologically conservative after threats provide convergent experimental support for the [Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129 339–375.] contention that conservatism is a basic form of motivated social cognition.

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The Jost, Glaser, Kruglanski, and Sulloway (2003) motivated social cognition model proposes that political conservatism serves an ego-defensive function against anxieties and threats associated with the uncertainty of everyday living. Conservatism is appealing because it depicts reality as clear, consistent, and stable. In a large, meta-analytic review, Jost et al. reported significant links between conservatism and personality traits related to desire for epistemic stability such as needs for order, structure, and closure (.26), dogmatism/intolerance of ambiguity (.34), and openness (–.32). Dispositional and experimentally manipulated need for control and uncertainty aversion have also predicted conservative forms of belief in God and government (Hogg, 2007; Kay, Gaucher, Napier, Callan, & Laurin, in press; van den Bos & Lind, in press). Such beliefs seem to confer generalized insulation from conflict and uncertainty: Conservative religious and political beliefs are both associated with low reactivity of the Anterior Cingulate Cortex in the face of conflict and error (Amodio, Jost, Master, & Yee, 2007; Inzlicht, McGregor, Hirsch, & Nash, 2009).

In this same vein, a number of studies examining responses to manipulated, laboratory threats or to threats in the real world (i.e., the Great Depression or terrorists' attacks) have shown that participants generally respond to threats with shifts toward conservative political and social positions (e.g., Bonanno & Jost, 2006; Echebarria-Echabe & Fernández-Guede, 2006; Florian, Mikulincer, & Hirschberger, 2001; McGregor, Nail, Marigold, & Kang, 2005. Study 3; McGregor, Zanna, Holmes, & Spencer, 2001;

Sales, 1972; Ullrich & Cohrs, 2007). An important question that has not received sufficient attention concerns how individuals differing in political orientation respond to threats. If the Jost et al. (2003) motivated social cognition model of conservatism is correct, one might expect political liberals, ironically, to be inclined toward reactive conservatism as a defense against threats. We refer to this possibility as the *reactive-liberals hypothesis*. Political conservatives, in contrast, tend to feel chronically under threat and are more dispositionally reactive (or prepared). Thus, they might be less reactive to specific situational threats than liberals.

There is some support for the reactive-liberals hypothesis in the literature. After reminding participants of the Al Qaeda attacks on American soil on 9/11/2001, for example, Landau et al. (2004, Study 3) found increased support for conservative President George W. Bush. Importantly, this increase was greater among liberals than conservatives. Similarly, Nail and McGregor (2009) found increased support for both Bush and military spending among liberals and conservatives in a sample drawn soon after 9/11/2001 as compared to one from a year before. Yet, in contrast to a purely reactive-liberals (or defensive conservatism) interpretation, one might reasonably interpret the Landau et al. and Nail and McGregor results as merely reflecting *situational, rational defensiveness*—logical, strategic support for the Commander in Chief and the US military in the face of a very real threat from Al Qaeda. What is needed is research that compares the defensive conservatism of liberals and conservatives following threat in situations where the measure of conservative cognition is far removed, conceptually, from the source of the threat.

The present research is also needed because there is evidence in the literature that would seem to contradict the reactive-liberals hypothesis (Gailliot, Stillman, Schmeichel, Maner, & Plant, 2008; Greenberg, Simon, Pyszczynski, Solomon, & Chatel, 1992; Jonas et al., 2008). These authors all report studies indicating that manipulated threats can lead to either liberal or conservative shifts depending on which worldview (or value) is salient at the time of the threat. In line with Jost et al. (2003), however, it is our contention that threat will always promote an inclination toward conservative cognition except if there are constraints against conservative shifts imposed by the context (e.g., the priming of liberal values). We set up the present research in a way that would bypass potential barriers against conservative responding among liberals. We hypothesized that when unconstrained by priming or other extraneous concerns (e.g., not wanting to appear hypocritical, see below) liberals would react to threats by becoming more conservative.

In three studies, we examine the reactive-liberals hypothesis using various elements of conservative cognition in response to threats across diverse content domains. Study 1 assesses self-described political liberals and conservatives' jingoism after a system-justice threat. Studies 2 and 3 conceptually replicate Study 1 with a dispositional measure of *psychological conservatism*, a different threat, and different dependent measures of conservative social cognition.

## Study 1

We induced threat in Study 1 by manipulating participants' sense of injustice. Participants in the injustice threat condition read a newspaper article about a white-collar criminal who would likely go unpunished despite strong evidence of his guilt (cf. McGregor et al., 2005, Study 3). For the measure of reactive conservatism, we selected a domain conceptually remote from white-collar crime: the tendency to favor individuals who support one's own in-group over those who are critical of the in-group. There is considerable evidence linking conservatism with this kind of in-group favoritism (e.g., Nail, Harton, & Decker, 2003). In the present study, however, we expected that liberals would be most reactive to the injustice threat. We expected that liberals would respond to the threat by becoming more like conservatives, that is, with the conservative tendency to favor those endorsing one's in-group over those derogating it.

### Method

#### Participants

Participants included 68 non-foreign undergraduate psychology students (22 males and 46 females,  $M = 21.95$  years of age) at a southwestern US state university who volunteered for course credit.

#### Procedure and materials

After answering questions about demographics, political orientation, and political attitudes in a mass-testing session, participants volunteered to complete two, allegedly unrelated studies. One was concerned with "the relationship between political attitudes, demographic variables, and judgments of a legal case" (the Enron case), the other with "Foreign students' perceptions of America and the reactions of American students to these perceptions".

**Political orientation.** Political Orientation was measured in the mass-testing session with a combination of two indices: (a) a single-item, self-report measure (1 = *very liberal* to 5 = *very conserva-*

*tive*) and (b) an eight-item political attitudes scale, which included four typically conservative items/targets (Republicans, George W. Bush, conservatives, and increasing military spending) and four typically liberal items/targets (the American Civil Liberties Union, liberals, socialized medicine, and feminists), each evaluated on a  $-5$  to  $+5$  scale. Liberal items were reverse scored, and then all items were averaged to create an overall political attitudes score where higher values reflected more conservative political attitudes ( $\alpha = .85$ ). The single-item, self-report measure and the political attitudes scores were highly correlated ( $r[68] = .59$ ,  $p < .0001$ ). Thus, we averaged the two to create a more stable single index of Political Orientation. The results were almost identical, however, using either measure of Political Orientation by itself.

**Injustice threat.** One month after the mass-testing session, we manipulated threat by exposing some participants to information that highlighted injustice related to a real-world scandal at Enron corporation. Enron was a major energy company that had gone bankrupt amidst glaring accounting fraud perpetrated by its senior executives. Participants were randomly assigned to receive one of two different versions of a newspaper article. In the non-threatening justice Control condition, the article described a male executive's corporate crimes and an appropriate legal prosecution. In the Injustice Threat condition, in contrast, the article stated that despite strong evidence of the executive's guilt, because of a legal technicality, he would likely get away with his crimes without being prosecuted.

**In-group favoritism.** Following the threat manipulation, the first research assistant exited the lab and was replaced by a second assistant. The new assistant distributed a packet to each participant containing two handwritten essays (counterbalanced), each on a separate page. One of the essays was pro-USA, the other, anti-USA. The essays were purportedly written by foreign exchange students attending the participants' university. The new experimenter told participants that she was interested in foreign students' opinions of the United States and the reactions of American students to these opinions. The true purpose of this study, however, was to assess the dependent variable, in-group favoritism. The pro-USA essay strongly affirmed an American worldview, extolling America's many freedoms, democratic political system, and abundant opportunities. The anti-USA essay was highly critical of America, criticizing Americans' emphasis on status and materialism and expressing dismay at the inequities between rich and poor.

The evaluation of both essays included 11 questions concerning the essay and its author. Three of the questions assessed the degree of agreement that the essay made valid points, was well written, and was free from bias (1 = *strongly disagree* to 11 = *strongly agree*). The eight remaining questions concerned the degree to which the author was knowledgeable, reasonable, etc. (1 = *not at all* to 11 = *extremely*). We operationalized In-Group Favoritism as the difference between the means of the evaluations of the pro- versus anti-USA essays and authors ( $\alpha = .86$  and  $.90$ , respectively).

### Results and discussion

We regressed mean In-Group Favoritism onto centered Political Orientation, effect-coded Threat (Injustice Threat versus Control), and the interaction term (see Aiken & West, 1991). The primary finding was a significant Political Orientation  $\times$  Threat interaction,  $\beta = .32$ ,  $t(64) = 3.0$ ,  $p < .004$ ,  $\eta^2 = .14$  (Fig. 1). There were two significant simple effects. First, in the Control condition the predicted value (PV) of In-Group Favoritism was significantly lower among more liberal ( $-1$  SD) participants (PV = .26) than among more conservative ( $+1$  SD) participants (PV = 2.41),  $\beta = .70$ ,  $t(64) = 4.41$ ,  $p < .0001$ ,  $\eta^2 = .23$ . Second, more liberal participants ( $-1$  SD) re-

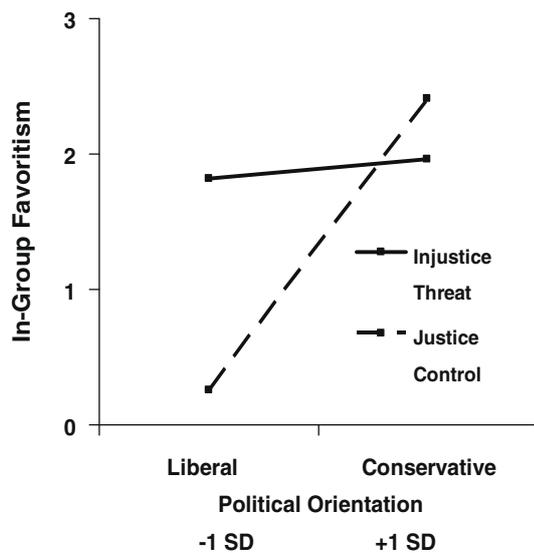


Fig. 1. Predicted in-group favoritism as a function of political orientation and injustice threat versus control.

ported more In-Group Favoritism in the Injustice Threat condition ( $PV = 1.82$ ) than in the Control condition ( $PV = .26$ ),  $\beta = 1.1$ ,  $t(64) = 3.41$ ,  $p < .001$ ,  $\eta^2 = .15$ . Thus, overall, when not under threat, liberals were more open to criticism of their in-group than were conservatives. Under threat, however, liberals became just as conservative as conservatives.

These findings indicate that threat drove liberals to shift toward social attitudes that are normally more characteristic of conservatives. Because the source of the threat and the measure of defensiveness were not closely related, these findings cannot be easily explained under a rational defensiveness framework. If anything, the links of both the threat and the measure of defensiveness with American culture make the reactive conservative shift among liberals seem all the more irrational in that evidence of extreme corruption at an American institution caused even more patriotic allegiance.

In line with the research of Gailliot et al. (2008), Greenberg et al. (1992, Study 2), and Jonas et al. (2008), however, it could be argued that we obtained a conservative shift among liberals in Study 1 because the topic of the threat, corporate corruption, primed conservative thoughts among the participants and the dependent measure, in-group favoritism, reflects conservative responding. To address this concern, in Studies 2 and 3 we use a different manipulation of threat and different measures of conservative cognition—manipulations and measures that are more indirect and so cannot be easily linked with conservatism. What is more, in Studies 2 and 3, we use a *psychological* measure of participants' liberalism as a predictor in place of the political liberalism predictor used in Study 1. Although political and psychological conservatism are clearly not the same thing, and it seems likely that many psychological conservatives are politically liberal, and vice-versa, there are clear dispositional correlations between political and psychological conservatism. To reiterate briefly, political conservatism is significantly correlated with both dogmatism/intolerance for ambiguity (.34) and openness to experience (–.32; Jost et al., 2003), the latter being the most heritable of the Big-5 traits (McCrae, 1996). Accordingly, in Studies 2 and 3 we triangulate on the reactive-liberals hypothesis from the perspective of psychological liberalism. Further, to bolster the generality of our conclusions and further argue against the rational defensiveness hypothesis, we use measures of conservative cognition that are even further removed from the domain of the threat than in Study 1.

## Study 2

According to Jost et al. (2003), a key psychological disposition that drives conservative cognition is a yearning for epistemic clarity and an aversion to inconsistency, unpredictability, and flux in one's view of the world. In Studies 2 and 3, we target a dispositional construct that we believe directly taps into such epistemic preferences but that was excluded in the Jost et al. review: Preference for Consistency (PFC). Cialdini, Trost, and Newsom (1995) found that scores on their PFC Scale are correlated with need for structure (.47) and openness (–.38), two of the key traits Jost et al. linked with political conservatism, as well as with a conceptually related trait, rigidity (.48). The specific wording of items further supports the PFC Scale as a potentially valid measure of psychological conservatism. Consider the following: "An important requirement for any friend of mine is personal consistency", "I typically prefer to do things the same way", and "I want my close friends to be predictable". These items appear to directly tap the conservative epistemic values of consistency, stability, and predictability.

To manipulate threat in Study 2, we used *mortality salience* (MS; Greenberg, Pyszczynski, & Solomon, 1986), which has been linked to uncertainty in past research (e.g., McGregor et al., 2001; van den Bos, Poortvliet, Mass, Miedema, & van den Ham, 2005). To measure conservative cognition, we used *compensatory conviction*—the tendency to react to threats by exaggerating personal certainty and lack of ambivalence with respect to personal opinions (McGregor, 2003; McGregor & Marigold, 2003; McGregor et al., 2001). We selected this measure because it taps the core feature of conservatism as depicted by Jost et al. (2003): psychological certainty (e.g., dogmatism, rigidity, and exaggerated certainty). Moreover, it is a kind of psychological conservatism that has no necessary link to religious value systems that might be primed by death. One oft-cited study that assessed reactions of liberals to MS used a dependent variable that reflected tolerance and compassion for an out-group member (Greenberg et al., 1992, Study 1). These researchers found, in contrast to the present reactive-liberals hypothesis, that liberals became more liberal following threat. MS, however, automatically primes religious thoughts (Norenzayan & Hansen, 2006; Norenzayan & Shariff, 2008), and so it may be that this previous finding reflects the tendency of MS to remind liberals of their liberal religious values, which might create an hypocrisy barrier against an explicit shift toward conservative values. There is no such barrier preventing a shift toward psychological conservatism in terms of enhanced certainty and lack of ambivalence, however, which we assess as parts of the dependent variable in Study 2.

## Method

### Participants

Participants included 58 undergraduate psychology students (15 males and 43 females,  $M = 22$  years of age) enrolled at a Canadian university. They volunteered for a study of "personality, relationships, and attitudes" in exchange for course credit.

### Procedure and materials

In each session, groups of between two and four participants were greeted by a female experimenter and randomly assigned to a private cubicle. All of the experimental materials were administered on computers, in the order described below.

**Measuring PFC.** Participants completed the PFC-B Scale ( $\alpha = .78$ ), which was embedded in several other personality scales in keeping with the cover story.

**Manipulating mortality salience threat.** Participants were randomly assigned to the MS or Control conditions. MS participants were

asked to describe in writing (a) “the feelings that the thought of your own death arouses in you” and (b) “What do you think will happen physically as you die and once you are dead?” Control participants responded to similar questions but with respect to watching television. We instructed both MS and Control participants that their responses here would be content analyzed toward forming part of their personality assessment.

**Measuring affect.** We measured affect with Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988). It was included (a) to provide the desired delay/distraction between the MS manipulation and the measurement of reactive conviction (see Greenberg et al., 1986) and (b) as a check on the possibility that MS threat affects mood (there were no effects).

**Measuring conviction.** Participants indicated their personal opinions about capital punishment and abortion by viewing a list of 10 diverse attitude statements (for each issue) and selecting the statement that most closely reflected their own opinion. They then answered 10 questions about their conviction for each of the statements they selected (from McGregor et al., 2001). Four of the conviction items were related to certainty (firmness, willingness to defend, strength of conviction, and certainty); six were related to absence of ambivalence (e.g., internal disagreement, mixed emotions). All items were scored on an 11-point scale. We standardized and averaged participants’ responses to the 20 items (10 from each issue,  $\alpha = .85$ ) to create an overall measure of Conviction. This measure served as our index of psychological conservatism.

### Results and discussion

We regressed Conviction onto centered PFC, effect-coded MS, and the PFC  $\times$  MS interaction. The primary finding was a significant PFC  $\times$  MS interaction,  $\beta = .35$ ,  $t(54) = 2.90$ ,  $p < .005$ ,  $\eta^2 = .13$  (Fig. 2). As in Study 1 there were two significant simple effects. First, in the Control condition, the predicted value (PV) of Conviction was significantly lower among more psychologically liberal (i.e.,  $-1$  SD in PFC) participants ( $PV = -.88$ ) than among more psychologically conservative (i.e.,  $+1$  SD in PFC) participants ( $PV = .28$ ),  $\beta = .61$ ,  $t(54) = 3.50$ ,  $p < .001$ ,  $\eta^2 = .19$ . Second, psychologically liberal participants (i.e., at  $-1$  SD in PFC) reported more Conviction in the MS condition ( $PV = .34$ ) than in the Control condition ( $PV = -.88$ ),  $\beta = .58$ ,  $t(54) = 3.18$ ,  $p < .002$ ,  $\eta^2 = .16$ .

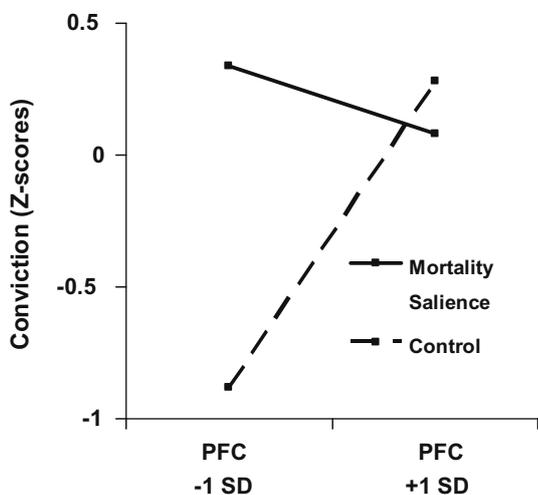


Fig. 2. Predicted conviction as a function of preference for consistency (PFC) and mortality salience threat versus control.

These results indicate that threat caused *psychological* liberals to become more *psychologically* conservative, just as threat had caused *political* liberals to become more *politically* conservative in Study 1. We emphasize that in Study 2, we measured a shift toward conservative *cognition* (viz., compensatory conviction), not merely a shift in conservative social attitudes, as in Study 1. As such, the present results provide a powerful conceptual replication of our main, reactive-liberals hypothesis—that threats will cause liberal openness to shift toward conservative closure. What is more, because neither the threat nor the measure of defensiveness was directly linked with either liberalism or conservatism, it cannot be the case that we obtained a shift toward conservative cognition because we inadvertently primed a conservative worldview or values. Given the novelty of using PFC as an index of psychological conservatism, however, it seemed prudent to attempt to conceptually replicate the present PFC results in a third experiment, with yet another aspect of conservatism as the dependent variable.

### Study 3

Study 1 showed that threat caused political liberals to become more politically conservative; Study 2 showed that threat caused psychological liberals to become more psychologically conservative (regardless of the political leanings of the relevant attitudes). In Study 3, we assessed whether threat would cause psychological liberals to become more conservative on a measure that reflects both political and psychological conservatism. There is strong evidence that anti-gay opinion is positively associated with a number of personality and social variables that are conservative in nature (e.g., Altemeyer, 1988; Whitley & Lee, 2000). In both Canada and the United States, the issue of gay rights has been a political football kicked back and forth by conservative opposition and liberal support. Accordingly, opposition to health benefits for gay couples seemed a good dependent measure for assessing political conservatism in the present study. We disguised the materials to make them seem more about compensation-fairness than about opinions regarding homosexuality (to avoid the possible hypocrisy barrier as described in Study 2). Further, we built an aspect of psychological conservatism as well as political conservatism into the dependent variable. Defensive, psychological conservatism craves and exaggerates consensus for value-laden beliefs (Kruglanski, Shah, Pierro, & Mannetti, 2002; McGregor et al., 2005; Shah, Kruglanski, & Thompson, 1998). Accordingly, in keeping with the results of Studies 1 and 2, we expected that threat would cause psychological liberals (i.e., participants with low PFC) to react with increased conservatism; specifically, with exaggerated consensus estimates for anti-gay opinions.

### Method

#### Participants

Participants included 35 undergraduate psychology students (14 males and 21 females,  $M = 24.34$  years of age) at a Canadian university. They volunteered for what was presented as two separate studies, the first on “personality and relationships”, the second, conducted immediately afterwards, on “goals and attitudes”. Participants completed all materials in one large group in a classroom setting, immediately before an introductory social psychology lecture.

#### Procedure and materials

The PFC Scale and MS manipulation were the same as in Study 2.

**Anti-gay sentiment.** For the main dependent variable, after 5 min worth of filler material, participants responded to a vignette in

which the issue of company benefits for a gay employee's partner was raised. Participants were asked if they thought the company should be required to pay the same share of the partner's medication expenses (yes or no) as it would for any heterosexual couple. Participants were then asked to indicate the percentage of Canadians they thought would agree with them (0%, 10%, ... 100%). We assessed strength of Anti-Gay Sentiment by taking the product of support for gay-partner benefits (yes = 0, no = 1) and estimated consensus for one's opinion. This computation allowed us to assess exaggerated consensus for a conservative position—a combined measure of political and psychological conservatism—in a way that we hoped would be subtle enough to reveal staunch Anti-Gay Sentiment without arousing hypocrisy or politically correct responding.

### Results and discussion

There was a significant correlation between conservative opinion (against benefits) and estimates of social consensus,  $r(35) = .46$ ,  $p < .005$ . This correlation is consistent with other links in the literature between conservative cognition and exaggerated consensus estimates (Kruglanski et al., 2002; Neuberg and Newsom 1993). We regressed the index of Anti-Gay Sentiment on centered PFC, effect-coded MS, and the PFC  $\times$  MS interaction. Once more, there was a significant PFC  $\times$  MS interaction,  $\beta = .37$ ,  $t(34) = 2.31$ ,  $p < .05$ ,  $\eta^2 = .14$  (Fig. 3). There was only one significant simple effect: Liberals' (i.e., at low-PFC,  $-1$  SD), Anti-Gay Sentiment was significantly greater in the MS condition ( $PV = 34.81$ ) than in the Control condition ( $PV = -0.68$ ),  $\beta = .64$ ,  $t(34) = 2.71$ ,  $p < .01$ ,  $\eta^2 = .18$ . These results are consistent with the findings of Studies 1 and 2 insofar as they show psychological liberals shifting toward conservative opinion after a situationally induced threat.

### General discussion

The results of three studies support the reactive-liberals hypothesis. Liberals became more conservative following experimentally induced threats. In fact, the threats consistently caused liberals to become as conservative as conservatives chronically were. The findings of all three studies are consistent with the view that conservative social cognition, whether political or psychological, is a defensive reaction against feelings of personal vulnerability. Past research has demonstrated correlations between

conservative political opinions and personality dispositions related to personal vulnerability and aversion to instability (Jost et al., 2003). Conservatives feel chronically vulnerable and bothered by epistemic instability, and as a result, cleave strongly to conservative political attitudes or modes of thinking (i.e., conviction) that confer psychological stability (cf., Amodio et al., 2007; Inzlicht, McGregor, Hirsh, & Nash, 2009). The present findings, along with numerous experiments showing conservative shifts in response to manipulated threats (e.g., Landau et al., 2004; McGregor et al., 2001; McGregor et al., 2005; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989; van den Bos, Poortvliet, Maas, Miedema, & van den Ham 2005), support the causal assumptions of the Jost et al. model. The present results, along with those of Landau et al. (2004, Study 3), however, go beyond previous research in showing that even among liberals—individuals who do not chronically feel vulnerable or drawn to stability—experimentally manipulated vulnerability causes motivated conservatism reactions. Unlike the Landau et al. and Nail and McGregor (2009) results, however, the motivated conservatism induced by the threats herein was clearly unrelated, strategically, to the threats. Accordingly, it cannot be reasonably argued that the present conservative shifts among liberals represent rational, risk-management reactions to perceived threat.

### Defensive conservatism versus worldview defense

Our findings inform a theoretical debate in the literature regarding whether psychological threats should cause defensive conservatism (Jost et al., 2003) versus worldview defense, regardless of political direction (Greenberg et al., 1992). If threats lead to worldview defense, liberals in our studies should have become even more liberal. Our consistent finding, that threats made liberals more conservative, however, provides strong support for the defensive conservatism position. As such, our findings appear inconsistent with the results reported by Greenberg et al. (1992, Study 1), who found that MS threat caused liberals to show somewhat less derogation of an out-group member (a conservative) relative to an in-group member (a fellow liberal). They interpreted this finding as liberals clinging more strongly to the liberal value of tolerance, thus more strongly supporting their liberal worldview under threat.

An alternative explanation for the Greenberg et al. result, however, is that liberals' increased tolerance for a conservative target after MS simply reflects a type of conservative shift—liberals' increased appreciation for conservatism under threat. Moreover, even if liberal acceptance of a politically conservative target is indeed politically liberal (allowing diversity), doing so fervently could also be seen as *psychologically* conservative in that affirming core liberal values could help reestablish epistemic clarity jeopardized by threat. Thus, in becoming more politically liberal in their expressed attitudes, the Greenberg et al. liberals could have also become, paradoxically, more conservative in terms of their psychological processing. Indeed, Study 2 of the present research found that psychological liberals became more psychologically conservative after threat in terms of absence of ambivalence and exaggerated conviction for their idiosyncratic opinions.

Since we are proposing that shifts toward either conservatism or greater liberalism among liberals following threat might both be interpreted as motivated conservatism it might seem that our hypothesis is unfalsifiable and therefore of dubious scientific value. This is not the case, however. In Studies 2 and 3 herein, where we removed priming and hypocrisy barriers to conservatism, evidence of liberals becoming either more liberal or not moving one way or the other would have falsified our hypothesis. What is more, viewing extreme conviction and certainty as a form of psychological conservatism could help integrate the motivated conservatism

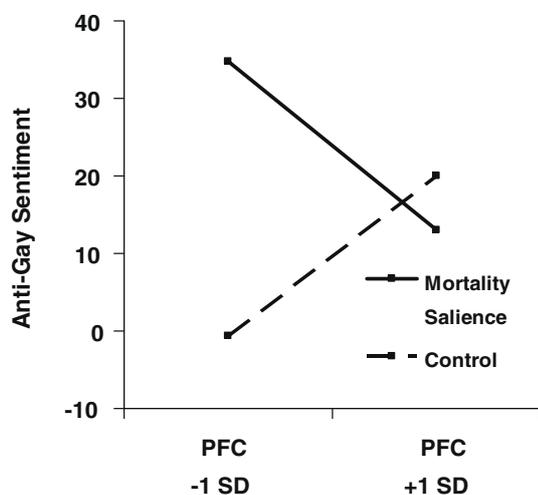


Fig. 3. Predicted Anti-Gay Sentiment as a function of preference for consistency (PFC) and mortality salience threat versus control.

and worldview defense theories of defensiveness. Worldview defense may essentially represent a form of psychological conservatism, that under the right conditions can be applied in either liberal or conservative directions, depending on what primes and constraints are active. When primes or constraints are removed, however, as in the present research, even liberals prefer psychologically and politically conservative reactions to threats.

We believe that threat always causes a press among liberals toward conservative cognition, but in some cases situational barriers may make a shift to political conservatism untenable due to either priming or concerns over political correctness (i.e., appearing hypocritical). This conclusion is consistent with several studies showing that threats can lead to either liberal or conservative shifts depending on which worldview is made salient by the context of the threat (Gailliot et al., 2008; Greenberg et al., 1992, Study 2; Jonas et al., 2008). As mentioned in Study 2 herein, tolerance and compassion are liberal religious values that are likely primed by MS (Norenzayan & Hansen, 2006; Norenzayan & Shariff, 2008). Such priming could create an hypocrisy barrier against liberals derogating conservatives. The present Studies 2 and 3 demonstrate that MS makes liberals more psychologically and politically conservative when barriers against expressing conservative opinions are not present.

*Adding to the Jost et al., (2003) motivated conservatism model*

Although the present research was based on and inspired largely by Jost et al. (2003), we believe that it adds substantially to their analysis in two primary ways. First, for Studies 2 and 3, we developed indirect measures of conservative cognition rather than relying solely on more traditional direct measures (viz., social/political attitudes). Conservative cognition, such as dogmatism, lack of integrative complexity, and the need for structure, was near the heart of the Jost et al. analysis. Most experimental and quasi-experimental research cited by Jost et al. in support of their model, however (e.g., Florian et al., 2001; Rosenblatt et al., 1989; Sales, 1972), as well as most subsequent research testing the model (e.g., Bonanno & Jost, 2006; Echebarria-Echabe & Fernández-Guede, 2006; Ullrich & Cohrs, 2007) has emphasized increased conservative attitudes. Yet, as the present research demonstrates, defensive conservatism can be manifested not only directly in terms of a shift toward more conservative attitudes (Studies 1 and 3), but also indirectly by a change in one's mode of thinking (Studies 2 and 3). Exaggerated certainty, lack of ambivalence, and imagined consensus are conservative in nature, we submit, even if one's position is left of center. Research examining changes in social cognition broadly defined in response to various threats would appear to be fertile ground for future research.

A second way the present research adds to Jost et al. (2003) concerns the meaning and interpretation of PFC. We identified PFC as yet another personality trait that may represent a defensive personality structure. Given the nature of the PFC construct and scale and its correlations with such traits as rigidity (.48), need for structure (.47), and openness (–.38; Cialdini et al., 1995), PFC could have been properly included in the Jost et al. analysis but was not. We have shown that PFC moderates defensive responding in two studies using MS as the manipulation of threat. Cialdini and colleagues (e.g., Cialdini et al., 1995; Guadagno, Asher, Demaine, & Cialdini, 2001) and Nail and colleagues (Nail, Bedell, & Little, 2003; Nail et al., 2001) have shown that PFC moderates defensiveness in terms of the need to reduce attitudinal-behavioral inconsistencies. How individuals varying in PFC might respond to other types of threats is an open question worthy of further research. Also needed is research examining the correlation between PFC and a direct measure of political conservatism. If the present analysis is on track, as PFC increases, so also should political conservatism.

## Conclusions

We believe that political conservatism has psychological properties that make it particularly appealing when vulnerability is dispositionally or situationally salient. Moreover, defensive conservatism appears to be a general psychological response to vulnerability that is not necessarily strategically linked to the eliciting threats. We conclude that significant threats always induce a tendency towards conservative social cognition. Whether this tendency is manifested directly in terms of increased political conservatism, or more indirectly in terms of increased psychological conservatism, will depend upon the particulars of the situation, such as when change toward political conservatism is blocked by priming or hypocrisy barriers.

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