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Conservatives Anticipate and Experience Stronger Emotional Reactions to Negative Outcomes

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Abstract

The present work examined whether conservatives and liberals differ in their anticipation of their own emotional reactions to negative events. In two studies, participants imagined experiencing positive or negative outcomes in domains that do not directly concern politics. In Study 1, 190 American participants recruited online (64 male, $M_{age} = 32$ years) anticipated their emotional responses to romantic relationship outcomes. In Study 2, 97 Canadian undergraduate students (26 male, $M_{age} = 21$ years) reported on their anticipated and experienced emotional responses to academic outcomes. In both studies, more conservative participants predicted they would feel stronger negative emotions following negative outcomes than did more liberal participants. Furthermore, a longitudinal follow-up of Study 2 participants revealed that more conservative participants actually felt worse than more liberal participants after receiving a lower-than-desired exam grade. These effects remained even when controlling for the Big Five traits, prevention focus, and attachment style (Study 1), and optimism (Study 2). We discuss how the relationship between political orientation and anticipated affect likely contributes to differences between conservatives and liberals in styles of decision and policy choices.

Numerous studies have converged on the idea that conservatives, compared to liberals, are particularly sensitive to a wide variety of negative stimuli (e.g., Castelli & Carraro, 2011; Oxley et al., 2008; Shook & Fazio, 2009). However, researchers have yet to examine whether conservatives are able to *predict* these strong emotional reactions to negative information. Given the pivotal role of anticipated affect in most life decisions (e.g., Mellers & McGraw, 2001), understanding how political orientation is related to anticipated emotion may help to illuminate the different decision-making tendencies of conservative and liberal people.

Overview

In the present work, we examined whether political orientation would predict anticipated affect following a negative versus positive outcome in a romantic relationship (Study 1) and on an upcoming university exam (Study 2). We hypothesized that conservatism would be associated with expecting a more intense negative emotional response to a future negative outcome. We expected, however, no difference between conservatives' and liberals' anticipated affect following a future *positive* outcome. Importantly, we expected that we would obtain these results across these two domains—romantic relationships and academic achievement—that have little to do with politics. We conclude with a suggestion of how such differences at the affective level might contribute to differences at the ideological level. To develop the rationale for our hypotheses, we turn first to the literature on political orientation and reactions to negative information.

Conservatism and Sensitivity to Negative Information

Political conservatism has been proposed to be related to the motivation to minimize uncertainty and maintain the status quo (Jost, Glaser, Kruglanski, & Sulloway, 2003). Not surprisingly, conservatives hold more avoidance-motivated moral positions, according to the Moral Motives Scale (Janoff-Bulman, Sheikh, & Baldacci, 2008). For example, across three studies, Janoff-Bulman et al. (2008) found that conservatives expressed moral ideals that were more related to maintenance of social order, whereas liberals' moral motives

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were more approach oriented, in the sense of striving for societal improvement. Conservatives also tend to express more support for protecting others from harm than for providing resources that may enhance others' lives (Janoff-Bulman, 2009). Finally, compared to liberals, conservatives express more adherence to principles of purity and loyalty, both of which relate to protecting the self and society from foreign or novel elements (Graham, Haidt, & Nosek, 2009). Taken together, the evidence suggests that, when it comes to beliefs about a properly functioning society, conservatives place more emphasis than liberals on the avoidance of what they perceive to be harmful or contaminating influences.

Recent research, however, has moved beyond endorsement of particular social and economic principles to investigate differences between conservatives and liberals at more basic psychological and neurophysiological levels of analysis. Importantly, in such studies, while political orientation is the predictor variable, the dependent variable is typically unrelated to politics per se. For example, more conservative individuals display a larger change in skin conductance (suggesting sympathetic nervous system activation) in response to threatening images (e.g., an individual with a bloody face), as well as stronger startle-blink reactions to loud, unexpected bursts of noise (Oxley et al., 2008; for conceptually related data, see Shook & Fazio, 2009). Notably, Oxley et al. (2008) reported no differences in physiological reactivity between conservatives and liberals in response to nonthreatening images (e.g., a bowl of fruit). The authors therefore concluded that political attitudes may have origins in distinct physiological patterns of response to threatening stimuli.

Additionally, there is evidence that negative stimuli are more attention grabbing to conservatives (Carraro, Castelli, & Macchiella, 2011). When performing an emotional Stroop task, conservatives were slower to respond to words with a negative valence (e.g., *contempt*, *vomit*) versus a positive valence (e.g., *love*, *paradise*) than liberals (Carraro et al., 2011, Study 1). The authors suggested that conservatives are therefore less able than liberals to inhibit the automatic allocation of attention to negatively valenced words in order to complete the task. The authors further demonstrated that conservatives allocated more attention to spatial areas of a computer screen in which negative pictures were presented (Study 2), even when controlling for need for cognition and need for closure (Study 3). Thus, they concluded that differences between liberals and conservatives exist even at the level of nonconscious attentional control.

Together, such data suggest that conservatives, compared to liberals, are more perceptually sensitive, and exhibit stronger autonomic responses, to the negative stimuli they encounter. Little research, however, has examined whether such differences extend to anticipated affect for stimuli and events that they have not yet encountered; do conservatives predict that they will experience more intense negative emotions following negative events? We turn now to a discussion of previous work on the role of anticipated affect in decision making.

Anticipated Affect

A considerable body of research suggests that decisions are strongly influenced by anticipated emotions. In other words, when people need to decide between competing options, they often choose the option with the highest level of subjective expected pleasure or, framed differently, the lowest level of anticipated displeasure (Mellers, Schwartz, & Ritov, 1999). For example, Bagozzi, Baumgartner, and Pieters (1998) surveyed a sample of individuals about how positively they expected to feel if they achieved their target body weight and how negatively they expected to feel if they failed to achieve their target body weight. Results indicated that participants' anticipated feelings regarding these possible outcomes predicted their motivations and intentions to exercise and diet, which, in turn, predicted actual dieting and exercising behaviors. In a more recent pair of studies, Fong and Wyer (2003) presented American and Chinese students with two scenarios—one financial scenario and one academic scenario—in which they had to choose between a safe option and a risky option. The students' anticipated positive and negative emotions in response to the possible outcomes (i.e., happiness, disappointment) were strong predictors of their choices, and these effects of anticipated affect were consistent across the two cultures.

Anticipated negative emotions, in particular, can often motivate cautious, avoidance-based decisions. For example, Weber and Chapman (2005) provided evidence that anticipated feelings of disappointment motivate less risky decision making, which is part of why people are often less willing to choose risky options when the stakes are higher. Zhang and Fishbach (2005) found that anticipated negative feelings contribute to the endowment effect: a bias based on loss aversion whereby people imbue an object with more value when they are selling it than when they purchased it. Moreover, Van de Ven and Zeelenberg (2011) found that many people will refuse to exchange lottery tickets even when offered a reward from the researchers for doing so, partially due to the strong feelings of regret they would expect to feel if their initial lottery ticket turned out to be a winner.

In the present research, we investigated whether political orientation would predict anticipated negative affective responses to negative outcomes. Building on past research showing that conservatives are more attuned to negative stimuli, we expected that conservatives would anticipate stronger emotional reactions to negative outcomes relative to liberals. That is, conservatives would, to some extent, base their predictions of future emotional experience on their past emotional experience; having experienced a history of intense emotional responses to negative outcomes, they might reasonably expect to continue to do so in the future.

Affective Forecasting Errors

In addition, in Study 2, we examined the influence of political orientation on *biases* in predicted affect. Generally, people

overestimate the extent to which future events will affect their emotions or well-being. The discrepancy between how people think they will feel after a given event and how they actually feel is called an affective forecasting error (AFE; Wilson & Gilbert, 2003). AFEs are a widely documented phenomenon, occurring across a range of time periods and events (see Wilson & Gilbert, 2003, for a review). However, researchers have found individual differences in affective forecasts (e.g., Dunn, Brackett, Ashton-James, Schneiderman, & Salovey, 2007; Hoerger & Quirk, 2010). For example, recent studies indicate that depressive symptoms are associated with anticipating more negative and less positive emotional experiences over an upcoming week, whereas anxiety symptoms are related to anticipation of more negative, but not less positive, emotion over the next week (Wenze, Gunthert, & German, 2012).

In the present studies, we investigated whether the extremity and bias of participants' affective forecasts would be related to their political orientation. Given conservatives' higher reactivity and sensitivity to negative information (e.g., Carraro et al., 2011; Oxley et al., 2008), we hypothesized that conservatives would predict feeling worse than liberals following negative events, and they would actually feel worse. Therefore, we expected that although conservatives would forecast feeling more intense negative affect, conservatives would not make larger affective forecasting *errors*.

The Current Studies

In Study 1, we examined the affective forecasts of liberals and conservatives in response to an imagined positive or negative relationship outcome. We hypothesized that conservatives (compared to liberals) would make more extreme negative affective forecasts in response to a poor relationship outcome. In Study 2, we examined not only the anticipated affect of conservatives and liberals, but also their actual reactions to a positive or negative academic outcome. Thus, we were able to investigate whether the association between *anticipated* and *actual* affect differs between conservatives and liberals. We predicted that, due to their sensitivity to negative information, conservatives would actually feel worse than liberals following a negative outcome. Thus, we did not expect to find any differences between conservatives and liberals in the magnitude of their affective forecasting errors.

STUDY 1

In Study 1, we tested our hypothesis in the domain of romantic relationships because the outcomes of decisions made about relationships are especially difficult to anticipate; they often hinge upon the subtle and complex actions and reactions of the partner. Indeed, uncertainty has been shown to be an integral feature of dating relationships (e.g., Knobloch & Solomon, 2002). Furthermore, relationships are an emotionally laden domain in which events can have lasting emotional consequences. For example, relationships are the most common source of life regrets (Morrison & Roese, 2011). Thus, romantic relationships are a potent area in which to assess individual differences in anticipated reactions to future events.

Given conservatives' greater sensitivity to negative events, we hypothesized that conservatives (compared to liberals) would predict being more profoundly affected by a negative, but not positive, relationship outcome. Testing for effects of political orientation on individuals' anticipated reactions to outcomes in romantic relationships presents a test of whether conservatives' tendency to emphasize the negative extends to personal domains that are removed from issues of public policy. This test becomes particularly rigorous when other established predictors of negative reactivity, such as anxious attachment, are controlled for.

Thus, in Study 1, participants read about a dilemma in which they were in a new dating relationship and were trying to plan their partner's birthday. The vignettes ended in a positive or a negative outcome of moderate magnitude because these types of events are highly characteristic of romantic relationships' daily ups and downs. In the positive outcome condition, participants read that their partner was happy with the birthday plans, whereas in the negative condition, the partner was upset about the birthday plans.

Method

Participants. We recruited 200 American community members (68 male; $M_{age} = 32$ years, $SD = 11.2$) to an online task on Amazon Mechanical Turk (for discussion of the validity of data collected from Mechanical Turk, see Buhrmester, Kwang, & Gosling, 2011). Of these, 10 participants were excluded for answering the manipulation check incorrectly, leaving a final sample of 190 participants (64 male; $M_{age} = 32$ years, $SD = 11.1$). The final sample was, on average, slightly liberal ($M = 3.52$ out of 7, $SD = 1.70$); 54.1% of participants received scores between slightly liberal and very liberal.

Political Orientation. Participants completed a three-item political orientation scale; the items were "In general, I consider myself to be a very conservative person" and "I find that my viewpoint on things tends to be very liberal," rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and "I consider my political views to be . . . ," where 1 = *very liberal*, 4 = *middle of the road*, and 7 = *very conservative* (Cronbach's $\alpha = .93$). This scale relies on participants' lay conceptions of conservatism versus liberalism, in line with past work on political orientation (for examples, see the one-item measures employed by Amodio, Jost, Master, & Yee, 2007; Feygina, Jost, & Goldsmith, 2010). Indeed, a principal components analysis confirmed that these three items constituted a single factor (eigenvalue = 2.60), which accounted for 87% of the variance in responses.

Big Five Traits. Conservatives have been found to differ from liberals on a number of personality traits; they are higher than liberals in Conscientiousness (Caprara, Barbaranelli, & Zimbardo, 1999; Carney, Jost, Gosling, & Potter, 2008) and politeness (Hirsh, DeYoung, Xu, & Peterson, 2010), and lower in Openness (Carney et al., 2008; Jost et al., 2003) and compassion (Hirsh et al., 2010). In the present study, we wanted to ensure that any effects of conservatism on anticipated affect could not be attributed to more general personality differences. Agreeableness ($\alpha = .89$), Extraversion ($\alpha = .92$), Neuroticism ($\alpha = .92$), Conscientiousness ($\alpha = .88$), and Openness ($\alpha = .86$) were measured using the Big Five Aspect Scale (BFAS; DeYoung, Quilty, & Peterson, 2007), a 100-item measure of the Big Five traits.

Attachment Style. Individual differences in attachment style have been shown to predict a wide range of behaviors in the context of romantic relationships (see Mikulincer & Shaver, 2007, for review). In the present study, we wanted to examine whether any effects of conservatism in the relational context would emerge above and beyond attachment style. Attachment anxiety ($\alpha = .88$) and attachment avoidance ($\alpha = .87$) were measured using the Attachment Style Questionnaire (Feeney, Noller, & Hanrahan, 1994).

Regulatory Focus. Individual differences in regulatory focus assess people's sensitivity to gains and non-gains versus losses and non-losses. People with relatively stronger promotion versus prevention focus tend to be more perceptually and emotionally sensitive to positive versus negative events, respectively (Brendl, Higgins, & Lemm, 1995; Higgins & Tykocinski, 1992). In the present study, we wanted to test whether any effects of conservatism on anticipated reactions to positive versus negative events would emerge above and beyond regulatory focus. Promotion focus ($\alpha = .69$) and prevention focus ($\alpha = .86$) were measured with the Regulatory Focus Questionnaire (RFQ; Higgins et al., 2001).

Scenarios. Next, participants were randomly assigned to one of the four relational scenarios (see Joel, MacDonald, & Plaks, 2012). In all versions, participants were asked to imagine that they were in a new dating relationship and that their partner's birthday was coming up. Participants either read that they decided to throw a surprise party (action) or that they decided to keep the birthday low-key (inaction). Next, the partner reacted to the birthday plans with either appreciation (positive outcome) or distress (negative outcome). We included the action/inaction manipulation so that we could test conservatives' anticipated affect in response to two different types of negative relational outcomes. Specifically, we wanted to examine whether conservatives expected to feel worse than liberals only when they actively brought about the outcome—a context that generally tends to elicit more regret (e.g., Feldman, Miyamoto, & Loftus, 1999; Leach & Plaks, 2009)—or whether the effect would extend even to instances when their role in the outcome was passive. Altogether, this study had a 2 (decision: action vs. inaction) × 2 (outcome: positive vs. negative) design.

Anticipated Affect. Participants were asked to imagine how they would feel at the end of the scenario and to indicate how happy they would feel with themselves (1 = *very unhappy*, 7 = *very happy*), how proud they would feel (1 = *very ashamed*, 7 = *very proud*), and how pleased with themselves they would feel (1 = *very displeased*, 7 = *very pleased*). A principal components analysis confirmed that these three items constituted a single factor (eigenvalue = 2.66), which accounted for 89% of the variance in responses. Hence, we calculated a three-item index (Cronbach's $\alpha = .93$) of anticipated affect.

Manipulation Check. A manipulation check was included to ensure that participants clearly understood the dilemma and the outcome. Specifically, participants were asked whether or not their partner was satisfied with the birthday plans. All but 10 participants answered the manipulation check question with the answer that correctly corresponded with the scenario condition to which they were assigned.

Results and Discussion

Correlations between all individual difference variables are presented in Table 1.

We hypothesized that individuals with a more conservative political orientation would anticipate particularly strong negative affect in response to the negative outcome scenarios. We tested this hypothesis using hierarchical linear regression (Aiken & West, 1991). Political orientation (lower score = more liberal, higher score = more conservative) was first mean-centered. In Step 1 of the regression equation, we entered outcome (positive vs. negative) and decision (action vs. inaction). In Step 2, we entered all individual difference variables that we wished to control for: attachment anxiety, attachment avoidance, promotion focus, prevention focus, all of the Big Five traits, and gender.[1] Political orientation was entered in Step 3. In Step 4, we included two-way interaction terms between outcome and each covariate included in Step 3. Finally, in Step 5, we included a two-way interaction term between outcome and political orientation to test whether anticipated reactions to positive versus negative relational events were moderated by conservatism. Anticipated affect (high scores representing positive affect, low scores representing negative affect) was entered as the dependent variable.

Results can be seen in Table 2. Final model $R^2 = .74$. All main effects from Steps 1, 2, and 3 were qualified by interaction effects in the subsequent steps. In Step 4, replicating findings from Joel et al. (2012), attachment anxiety interacted with outcome to predict anticipated affect, $\beta = .68$, $p = .009$. Simple effects analyses indicated that more anxiously attached individuals expected to feel worse than less anxiously attached

Table 1 Study 1: Correlations Between Individual Difference Variables

	Political Orientation	Openness	Neuroticism	Agreeableness	Conscientiousness	Extraversion	Promotion Focus	Prevention Focus	Attachment Anxiety
Openness	−.19*								
Neuroticism	−.12	−.30***							
Agreeableness	.14+	.18*	−.17*						
Conscientiousness	.23**	.23**	−.38***	.35***					
Extraversion	.14+	.37***	−.42***	.27***	.47***				
Promotion focus	.13+	.41***	−.54***	.19*	.34***	.54***			
Prevention focus	.20**	−.13+	−.08	.27***	.29***	−.09	.05		
Attachment anxiety	−.15*	−.23**	.60***	−.11	−.39***	−.51***	−.60***	−.12+	
Attachment avoidance	−.17*	−.13+	.35***	−.41***	−.30***	−.59***	−.40***	−.16*	.52***

Note. +$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

individuals in response to the negative relational scenarios, $\beta = -.37$, $p < .001$, but not the positive scenarios, $\beta = .01$, $p = .90$. In addition, we found that both Agreeableness, $\beta = .19$, $p = .05$, and Openness, $\beta = .18$, $p = .04$, interacted to predict anticipated affect. However, simple effects analyses indicated that neither of these individual difference variables significantly predicted anticipated affect in response to either the positive scenarios or the negative scenarios, all ps > .10.

More germane to the present work, an independent interaction emerged in Step 5 between political orientation and outcome, $\beta = .18$, $p = .02$ (see Figure 1). Simple effects analyses indicated that for participants in the positive outcome conditions, anticipated affect was similar for both liberals and conservatives, $\beta = .06$, $p = .44$. However, as hypothesized, political orientation did predict anticipated affect in the negative outcome conditions, $\beta = -.19$, $p = .02$, such that conservatives anticipated feeling worse compared to liberals in response to a negative relationship event.

We next conducted a second hierarchical regression analysis in which we added two- and three-variable interaction terms between conservatism, outcome, and decision type, to test whether conservatives' versus liberals' anticipated reactions to relational events depended on whether they were elicited by an action or an inaction. Final model $R^2 = .74$. No two-variable interaction emerged between conservatism and decision type, $\beta = .02$, $p = .74$, nor did a three-variable interaction emerge between conservatism, decision type, and outcome, $\beta = -.04$, $p = .68$. These results suggest that conservatives' stronger anticipated affect in response to negative relational events does not depend on whether the event was elicited by action or inaction. In other words, conservatives expect to feel worse in response to negative relational events regardless of whether they played a passive role in bringing about the event (e.g., failing to throw a party for one's partner) or an active role (e.g., throwing a party that the partner did not like).

These results suggest that conservatives do not simply make polarized emotional forecasts for both good and bad events: Conservatism was unrelated to how good individuals expected to feel if their birthday party choice was received *well* by their partners. In other words, conservatives view potential negative relationship events as especially negative, but they do not view potential positive events as especially positive. Notably, conservatism predicted affective forecasts over and above individual differences related to both the nature of affective forecasts (Extraversion and Neuroticism; Hoerger & Quirk, 2010) and reactions to relationship outcomes (e.g., attachment style; Mikulincer & Shaver, 2007).[2]

STUDY 2

Study 1 demonstrated that more conservative individuals predicted feeling worse than less conservative individuals after a negative (but not positive) relationship outcome. Next, we investigated two further questions: First, would the association between conservatism and anticipated affect following nega-

Table 2 Study 1: Regression Analysis Predicting Anticipated Affect in Response to Relational Outcomes

Step	Predictor	*b*	*SE*	β	*p*
Step 1	Decision outcome	0.128	0.196	0.032	0.516
		3.174	0.195	0.797	<.001
Step 2	Openness	0.106	0.198	0.027	0.635
	Conscientiousness	–0.175	0.223	–0.052	0.387
	Extraversion	–0.021	0.222	–0.007	0.667
	Agreeableness	0.067	0.226	0.018	0.925
	Neuroticism	0.283	0.192	0.099	0.144
	Promotion focus	0.214	0.211	0.069	0.312
	Prevention focus	–0.061	0.113	–0.031	0.589
	Attachment anxiety	–0.420	0.150	–0.207	0.006
	Attachment avoidance	0.178	0.177	0.071	0.318
	Gender	–0.170	0.222	–0.041	0.445
Step 3	Political orientation	–0.019	0.063	–.016	0.763
Step 4	Openness × Outcome	0.961	0.096	0.158	0.042
	Conscientiousness × Outcome	–0.038	0.400	–0.008	0.924
	Extraversion × Outcome	–0.121	0.440	–0.027	0.783
	Agreeableness × Outcome	0.931	0.473	0.186	0.051
	Neuroticism × Outcome	0.330	0.378	0.088	0.383
	Promotion × Outcome	0.530	0.420	0.131	0.209
	Prevention × Outcome	0.232	0.224	0.087	0.302
	Anxiety × Outcome	0.777	0.295	0.281	0.009
	Avoidance × Outcome	–0.142	0.358	–0.127	0.692
	Gender × Outcome	–0.245	0.468	–0.112	0.601
Step 5	Political Orientation × Outcome	0.279	0.120	0.177	0.022

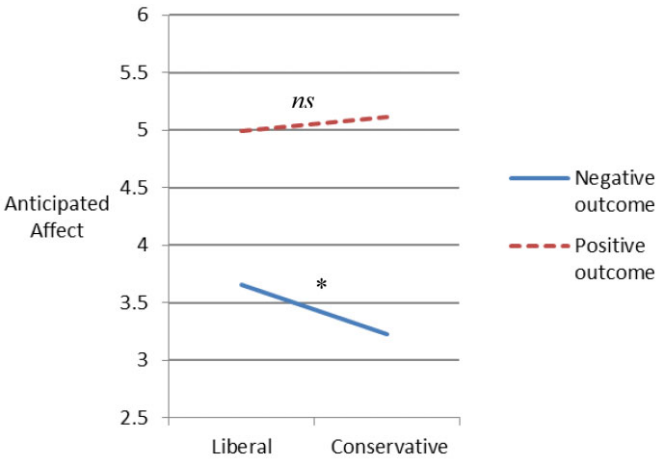

Figure 1 Effects of political orientation on anticipated affect for relational scenarios. *$p < .05$.

tive events generalize to a domain different from romantic relationships? After all, it may be that conservatives place high value on traditional, secure marriage relationships, and this causes them to view relationship setbacks particularly negatively (i.e., not because of a generalized aversion to negative outcomes but because of an aversion to negative *relationship* outcomes in particular). Second, we examined whether the association between conservatism and anticipated affect is due to a negative bias on the part of conservatives. Do conservatives and liberals ultimately feel equivalently badly following negative events, such that conservatives' stronger negative affective forecasts are negatively biased? Or do conservatives actually feel worse than liberals following negative events, such that conservatives' negative affective forecasts are not more or less biased than those of liberals?

To address these questions, we assessed affective forecasting errors in Canadian undergraduates who were asked to predict their reactions to positive or negative test outcomes they would experience in an undergraduate course. In addition to conservatism, we measured another plausible individual difference predictor of AFEs: optimism. Previous studies have found conservative individuals to be more optimistic than liberals (Schlenker, Chambers, & Le, 2012). To ensure that any effects of conservatism on predicted emotions could not be attributed to conservatives' tendency toward optimism, we included an optimism measure in Study 2 (Life Orientation Test-Revised [LOT-R]; Scheier, Carver, & Bridges, 1994). Once again, we expected that more conservative people would anticipate more negative affective reactions to negative but not positive test outcomes. We further hypothesized that conservative individuals would actually feel worse following a negative test outcome, such that the magnitude of their affective forecasting errors would be roughly equivalent to those made by more liberal individuals. We anticipated that these effects would hold above and beyond participants' baseline levels of happiness. Finally, we expected that these effects would hold over and above the effect of optimism.

Method

Participants. Participants were 71 females and 26 males, with an average age of 21 years ($SD = 3.62$, range = 18–38), and an average of 16 years of spoken English; 45 were East Asian, 37 were Caucasian, 10 were South Asian, three were Hispanic, one was Black, and one did not specify his or her ethnicity. The 94 students who completed the conservatism scale were, on average, slightly liberal ($M = 3.39$ out of 7, $SD = 1.17$); 62.8% of students received scores between slightly liberal and very liberal.

Procedure. Students enrolled in an undergraduate class participated in up to three 5–15-min testing sessions. The Time 1 session took place on October 18, which was 5 days after students' marks on their first (of two) term tests were posted online. In this session, students indicated their current happiness with the item "In general, how happy would you say you are these days?" (1 = *very unhappy* to 7 = *very happy*; see Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). They also indicated the mark (in percentage) they received on Test 1 and the mark they expected to get on Test 2 (scheduled for November 15). Finally, participants indicated how happy, ranging from 1 to 7, they would be approximately one week after receiving their mark if they achieved or exceeded their expected mark, and how happy they would be if they failed to achieve their expected mark on the second test.

In an intermediary session, on November 29, participants completed the optimism measure (LOT-R), the three-item conservatism scale employed in Study 1, and a demographics questionnaire that included questions regarding ethnicity, age, gender, religiosity, and years of spoken English.

The Time 2 session took place on December 6, approximately 9 days after students' Test 2 marks were posted online. In this session, students provided a rating of current happiness and their Test 2 score. A total of 97 participants provided data in all three sessions

For all analyses, participants who achieved or exceeded their Test 2 expectation mark will be called "achievers" ($n = 32$) and those who failed to achieve their Test 2 expectations will be called "underachievers" ($n = 62$). Note that some participants provided incomplete data in the Time 2 session, leaving 94 people for whom we had confirmed achieved/underachieved status.

Results

Baseline Happiness. We tested for differences in baseline happiness between achievers and underachievers. An independent-samples t test indicated that Time 1 happiness was not significantly different between the groups, $t(92) = 1.02$, $p = .31$. We also tested for differences in happiness based on political orientation. Simple regression analyses revealed that overall, conservatism did not predict more or less happiness at Time 1, $t(90) = .93$, $p = .36$.

Test Marks. For 94 students, we collected a Test 1 mark, an expected Test 2 mark, and an actual Test 2 mark. A between-subjects ANOVA revealed no significant differences in Test 1 performance between those who later surpassed their Test 2 goal (achievers) and those who later failed to achieve their Test 2 goal mark (underachievers), $F(1, 92) = 1.12$, $p = .29$, $\eta^2 = .012$.

There were also no significant differences in expected marks for Test 2 between achievers and underachievers, $F(1, 92) = .18$, $p = .67$, $\eta^2 = .002$. Hence, all participants had similarly ambitious expectations for their Test 2 marks (see Table 3).

Finally, simple regression analyses indicated that political orientation did not predict grades on Test 1 marks, $t(89) = 1.08$, $p = .28$, expected Test 2 marks, $t(90) = 1.23$, $p = .22$, or actual Test 2 marks, $t(68) = .88$, $p = .38$.

Positive and Negative Affective Forecasting Errors. The 32 achievers constitute the sample for examining positive AFEs, and the 62 underachievers are the sample for negative AFEs. At Time 1, participants knew only their Test 1 marks and forecasted their post–Test 2 happiness, whereas at Time 2, they had seen their Test 2 marks and reported their actual post–Test 2 happiness.

A paired-samples t test revealed that the 62 underachievers' estimates of future happiness if they failed to achieve their expected Test 2 mark were significantly lower than their actual Time 2 happiness, $t(61) = 2.41$, $p = .02$. Similarly, the achievers' estimates of future happiness if they succeeded in achieving their expected Test 2 mark were significantly higher than their actual Time 2 happiness, $t(31) = 3.24$, $p = .003$. In other words, students who failed to achieve their expected Test 2 mark underestimated how happy they would be after this

Table 3 Mean Test Results of Students on Test 1, Test 2, and Expected Test 2 Marks

	Time 1		Time 2
Students	Test 1 Mark	Expected Test 2 Mark	Test 2 Mark
All students	81.80 (11.11)^{a}	84.83 (7.04)^{b}	79.40 (12.38)^{c}
Achievers	83.22 (10.89)$^{a}_{i}$	84.28 (5.95)$^{a}_{i}$	90.09 (5.73)$^{b}_{i}$
Underachievers	80.74 (10.69)$^{a}_{i}$	84.90 (6.93)$^{b}_{i}$	73.61 (11.19)$^{c}_{ii}$

Note. Means marked with different superscripts are significantly different from each other *within* groups at the $p < .05$ level. Means with different subscripts are significantly different *between* groups at the $p < .05$ level. Standard deviations for each mean are indicated in parentheses.

failure, whereas students who achieved or surpassed their expected marks overestimated how happy they would be after this success. Taken together, these results constitute evidence of both positive and negative affective forecasting errors.

Political Orientation and AFEs. We next examined three questions regarding political orientation. First, would conservatives expect to feel worse than liberals if they did not achieve their expected grade? Second, would conservative underachievers actually feel worse, compared to liberal underachievers and to conservative achievers? And finally, how would the magnitude of conservatives' negative and positive affective forecasting errors compare to liberals'?

Magnitude of Affective Forecasts. We hypothesized that conservatives would expect to feel worse after failing to achieve their expected grade than would liberals, but conservatives and liberals would expect to feel equivalently happy after achieving their expected grade. As in Study 1, we expected that these effects would emerge above and beyond any effects of gender. We further expected that these effects would emerge above and beyond any effects of optimism, as well as baseline happiness.

Note that each participant was asked to forecast his or her emotions twice: once for the potential outcome of achieving the desired grade, and once for the potential outcome of failing to achieve the desired grade. To account for this repeated-measures aspect of the study design, we tested our hypothesis with multilevel modeling using mixed models in SPSS 20.0. All continuous variables were first mean-centered. The model included four Level 2 predictor variables (i.e., between subjects): gender, optimism, political orientation, and Time 1 happiness. The model also included one Level 1 variable (i.e., within subjects): the potential outcome being forecasted (achievement vs. underachievement). Finally, the model included a two-way interaction term between political orientation and potential outcome. The dependent variable was predicted happiness at Time 2.[3]

One participant was removed because her predicted happiness score was more than three standard deviations below the mean. The model revealed a significant main effect of Time 1 happiness: Participants who felt happier at Time 1 expected to feel happier at Time 2, $b = .55$, $p < .001$. There was also a significant main effect of potential outcome: Participants expected to feel happier at Time 2 if they had achieved their expected grade than if they failed to achieve their expected grade, $b = .71$, $p < .001$. There were no main effects of gender, optimism, or political orientation, all ps $> .40$. Critically, a significant interaction emerged between political orientation and potential outcome, $b = .12$, $p = .03$ (see Figure 2). Simple effects indicated that political orientation did not predict affective forecasts regarding a successful outcome; conservatives expected to feel roughly as happy after obtaining their expected grade as liberals, $b = .07$, $p = .36$. However, as hypothesized, political orientation did predict affective forecasts regarding negative outcome, such that conservatives predicted feeling worse than liberals after failing to obtain their expected grade, $b = -.17$, $p = .04$. Replicating the findings of Study 1, these results suggest that conservatives anticipated experiencing stronger negative affect following negative events compared to liberals, whereas their anticipated affect for positive events is similar to that of liberals.

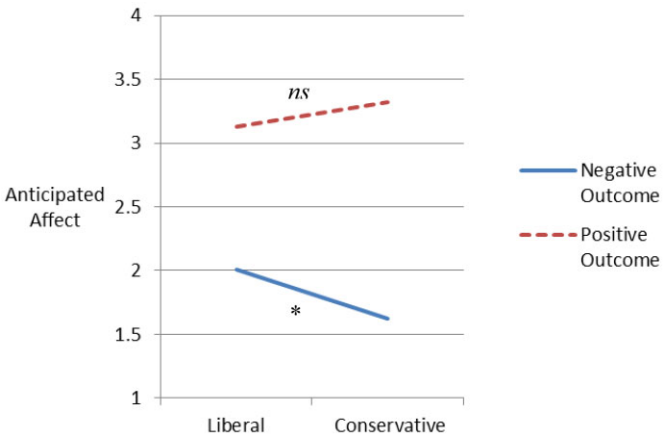

Figure 2 Effects of political orientation on anticipated affect for academic scenarios. *$p < .05$.

Actual Affect. Next, we used hierarchical regression to test whether political orientation would predict participants' actual affective states one week after receiving their Test 2 marks. We hypothesized that conservatives would actually feel worse following a failure compared to liberals, but that they would not feel better or worse following a success compared to liberals. Time 1 happiness, gender, and optimism were simultaneously entered in Step 1 as control variables, political orientation and outcome (achieved vs. underachieved) were entered into Step 2, and the interaction between political orientation and outcome was entered into Step 3. The dependent variable was actual Time 2 happiness.[3]

One participant was removed because her actual Time 2 happiness score was more than three standard deviations below the mean. Final model $R^2 = .40$. Step 1 revealed marginal effects of both optimism and gender, such that people were marginally happier at Time 2 if they were more optimistic, $\beta = .20$, $p = .07$, and men were marginally happier than women, $\beta = -.21$, $p = .06$. Not surprisingly, people were also happier at Time 2 if they had been happier at Time 1, $\beta = .41$, $p < .001$. In Step 2, there was no main effect of outcome, $\beta = -.08$, $p = .48$, meaning that Time 2 happiness was not significantly predicted by whether participants achieved their expected Test 2 mark; achievers and underachievers were comparably happy at Time 2. There was a main effect of political orientation, $\beta = -.22$, $p = .04$, such that conservatives were less happy at Time 2 than liberals. Finally, Step 3 revealed a significant interaction between political orientation and outcome, $\beta = -.34$, $p = .03$ (see Figure 3). Simple effects indicated that

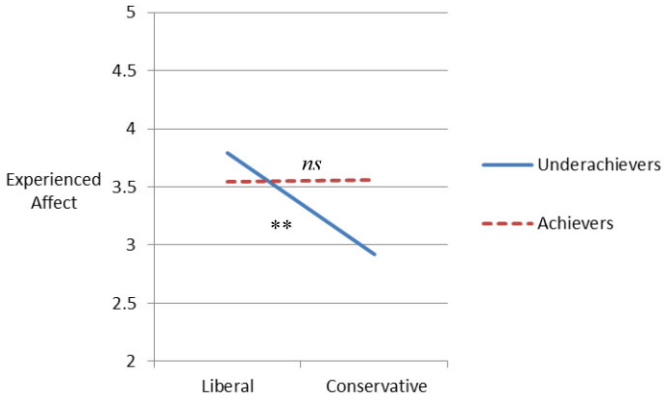

Figure 3 Effects of political orientation on experienced affect for academic scenarios. $^{**}p < .01$.

for students who achieved their expected Test 2 mark, political orientation did not predict Time 2 happiness, $\beta = .01$, $p = .96$. However, among students who failed to achieve their expected Test 2 mark, conservatives were significantly less happy than liberals at Time 2, $\beta = -.47$, $p = .002$. These results suggest that conservatives actually did have stronger emotional reactions to a negative academic outcome compared to liberals.

Magnitude of Affective Forecasting Errors. To summarize the results so far: (a) Conservatives (compared to liberals) predicted feeling worse following failure to achieve a desired mark, and (b) Conservatives (compared to liberals) actually did feel worse following failure to achieve a desired mark. Together, these findings suggest that although conservatives make more negative forecasts, this is not due to a pessimistic prediction bias: Conservatives predict feeling worse after negative events because they actually do tend to feel worse. We tested this idea directly by comparing the magnitude of conservatives' affective forecasting errors to those made by liberals.

Time 1 happiness, gender, and optimism were entered in Step 1 of a hierarchical regression question, political orientation and outcome (achieved vs. underachieved) were entered in Step 2, and the interaction between political orientation and outcome was entered in Step 3. The dependent variable was the unstandardized residuals of actual Time 2 happiness regressed onto predicted Time 2 happiness (mean-centered), which represents the relative direction and magnitude of participants' affective forecasting errors.[4]

Final model $R^2 = .21$. In Step 1, there was a main effect of Time 1 happiness, such that people who were happier at Time 1 made relatively more optimistic forecasting errors, $p = .04$. There were no main effects of either gender or optimism, both ps > .10. In Step 2, there was no significant main effect of outcome, such that the size and direction of the affective forecasting errors were not predicted by whether the students succeeded or failed in achieving their expected marks, $\beta = .16$, $p = .20$. There was similarly no main effect of political orientation, $\beta = -.15$, $p = .23$. Most importantly, there was no significant interaction between outcome and political orientation, $\beta = -.14$, $p = .43$. In other words, there is no evidence to suggest that conservative and liberal individuals differ in the direction or magnitude of their affective forecasting errors.

Discussion

Replicating the findings of Study 1, we found that conservatives (compared to liberals) predicted more negative affective reactions to a negative outcome—here, in the academic domain rather than the relationships domain. Longitudinal follow-up analyses demonstrated that conservatives actually did feel worse than liberals following a negative academic outcome. As such, their affective forecasting errors were equivalent in magnitude to those of liberals. Thus, although conservatives' affective forecasts for negative scenarios were more extreme than those of liberals, their forecasts were no more biased; for conservatives, both anticipated and experienced affect were shifted toward the negative end of the scale. These effects were found even when controlling for baseline happiness levels, as well as two relevant predictors of happiness: gender and trait optimism.

GENERAL DISCUSSION

These studies suggest that conservative individuals, more so than liberal individuals, envision future negative events as having high emotional impact. These results were found across different samples (community members in Study 1 and undergraduates in Study 2) and across widely disparate domains (hypothetical romantic relationship outcomes in Study 1 and actual academic outcomes in Study 2). It is also worth noting that, in Study 1, the association between conservatism and anticipated negative affect held regardless of whether participants imagined actively bringing on their misfortune (throwing an unwelcome surprise party) or passively came into misfortune (deciding not to throw a party and disappointing their partner). Hence, conservatives consistently imagined strong negative reactions to three different kinds of unwelcome outcomes across the two studies. In Study 2, we found that this proneness to anticipated negative affect was not unfounded; conservatives' tendency to predict strong negative emotions reflected an actual tendency to react more strongly to negative events. Notably, conservatism was associated with particularly negative anticipated reactions to negative events even after controlling for regulatory focus, the Big Five traits, attachment style, and optimism.

Implications for Understanding Political Orientation

In a highly polarized political climate where political adherents are increasingly incredulous that anyone could espouse

the opposing view, the present data, by invoking more basic psychological mechanisms, may begin to "demystify the opposition." The tendency of conservatives to make stronger emotional forecasts for only negative future events could play a role in conservatives' avoidant tendencies and choices. Decisions can be powerfully affected by anticipated emotions (e.g., Mellers et al., 1999). Indeed, negative anticipated emotions in particular are associated with more loss-averse behavior (Zhang & Fishbach, 2005). While political conservatism is clearly a complex construct that does not reduce to mere "avoidance" (Graham et al., 2009), conservatives' strong anticipated negative affect in response to negative events may contribute to their tendency to endorse policies aimed at reducing negativity (Janoff-Bulman et al., 2008) and maintaining the status quo (Jost et al., 2003). It is important to note that we did not find that higher liberalism was related to anticipated positive affect in response to positive events. Thus, it seems that liberals do not imagine that positive events will have particularly positive effects; rather, they may be more willing to deviate from the status quo because they do *not* predict hugely negative consequences for negative events. Hence, conservatism may be a better reflection of sensitivity to negativity than liberalism is a reflection of sensitivity to positivity.

Overall, our results are consistent with theories of conservatism as motivated social cognition, which suggest that conservative values help to reduce a sense of uncertainty or chaos (Jost et al., 2003; Peterson & Flanders, 2002). The present findings extend this idea by providing evidence for a specific reason *why* conservative individuals would be motivated to maintain the status quo. Namely, conservatives, when imagining the pros and cons of deviating from the tried and true, see the potential drawbacks as more emotionally damaging than they see the potential benefits as delightful. Interestingly, conservative individuals manifested this tendency in domains completely unrelated to politics. This suggests that conservatives may not only be fearful of negative outcomes that could result from changes in the demographic or socioeconomic status quo; they may also be fearful of negative outcomes in personal domains such as romantic relationships or academic performance.

It is also worth noting that in the present work, we found that conservatives not only *expect* to feel worse in response to anticipated negative outcomes—they actually *do* feel worse in response to negative outcomes. In particular, one week after receiving a disappointing test outcome, conservatives reported being less happy in general compared to liberals, controlling for their happiness levels at Time 1. The fact that conservatives were still experiencing residual, general negative affect a week after receiving their test mark demonstrates how powerfully conservatives are emotionally affected by negative events. This finding contributes to a growing body of literature on conservatives' sensitivity to negative information (e.g., Carraro et al., 2011) and further helps to explain why conservatives may make safer, more risk-averse decisions than liberals in a wide range of domains.

LIMITATIONS

Some features of these studies could be extended in future work. In Study 2, we hewed closely to the traditional dependent measure in affective forecasting studies by using a simple and direct measure of happiness. In future work, however, it would be valuable to obtain forecasts of emotion on separate scales of positive and negative emotion as opposed to unidimensional scales ranging from positive to negative. Previous studies of affect indicate that negative and positive emotions can be considered orthogonal (e.g., Watson, Clark, & Tellegen, 1988). Thus, there may be more nuanced differences between the affective forecasts of liberals and conservatives if positive and negative forecasted emotions were measured on separate scales.

It is also worth noting that in these studies, as in others (e.g., Amodio et al., 2007; Feygina et al., 2010), we employed a brief and somewhat vague measure of conservatism. In other words, we did not define what *we* meant by "conservative" or "liberal" in the three-item measure that participants completed, nor did we refer specifically to political parties, voting practices, or other aspects of conservative ideology. We relied on people's lay theories about whether they would call themselves conservative or not. These data therefore cannot speak to the distinction made between psychological and political conservatism (e.g., Nail, McGregor, Drinkwater, Steele, & Thompson, 2009); rather, these results demonstrate that some common lay conception of "conservatism" predicts exaggeratedly negative anticipated consequences of negative events. However, in previous studies, even a one-item measure of conservatism (ranging from –5 = *extremely liberal* to 5 = *extremely conservative*) has been shown to account for as much as 85% of the variance in Americans' voting intentions (Jost, 2006), suggesting that many individuals construe conservatism as predominantly political.

Additionally, these studies are unable to address the direction of causality between political orientation and affective forecasts made in nonpolitical domains; these two variables are likely mutually influential. As noted, it is possible that the tendency to forecast very negative reactions to negative events could push one toward political attitudes that emphasize reduction of uncertainty and negativity. However, there is also evidence that political orientation has a sizable heritable component (e.g., Alford, Funk, & Hibbing, 2005), suggesting that conservatism could itself shape the way in which one comes to forecast one's emotions.

Finally, studies could further explore the potential associations between one's affective forecasts and endorsement of specific social policies, in order to clarify the nature of the relationship between anticipated reactions to potential events and particular political attitudes per se. For example, how does one's anticipated reaction to a relative or close friend marrying a same-sex partner relate to one's stance on same-sex marriage in general, and to what extent would such an association be mediated by domain-general political orientation as measured

in these studies? These are potentially valuable directions to be taken in future studies.

CONCLUSION

These two studies present evidence that when imagining their reactions to future events, conservative individuals imagine intense reactions to negative—but not positive—events. Conservatism was associated with only negative emotional forecasts across two disparate domains (relationships and academics), suggesting that situations of very different kinds can evoke the tendency of conservatives to catastrophize possible future negative outcomes. This imbalance in forecasting their own emotional reactions to future negative versus positive eventualities may represent a partial explanation for why conservatives display higher avoidance orientation and endorsement of status quo–affirming policies.

Notes

1. Men tend to have more conservative political attitudes than women (Pratto, Stallworth, & Sidanius, 1997), so gender was included as a covariate in the analyses.

2. The effects obtained in Study 1 are presented with a number of control variables included (i.e., Big Five traits, attachment style, regulatory focus, decision type, gender). However, the same pattern of results emerges when these control variables are not included in the model. Specifically, conservatism predicts stronger emotional reactions to negative, but not positive, relational events.

3. As in Study 1, all regression models in Study 2 are presented with control variables included (i.e., gender, optimism, and Time 1 happiness). However, the same patterns of results emerge when these control variables are not included in the models. Specifically, conservatives expect to feel, and actually feel, worse regarding negative outcomes but not positive outcomes.

4. Similar results were obtained when raw difference scores were used as the dependent variable. Specifically, no main effects or interactions with conservatism emerged, suggesting that conservatives and liberals did not differ in the magnitude or direction of their affective forecasting errors.

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