



# Do liberals value emotion more than conservatives? Political partisanship and Lay beliefs about the functionality of emotion

Minyoung Choi<sup>1</sup> · Melissa M. Karnaze<sup>2</sup> · Heather C. Lench<sup>3</sup> · Linda J. Levine<sup>1</sup>

Accepted: 11 November 2022 / Published online: 19 December 2022  
© The Author(s) 2022

## Abstract

Relying on feelings to guide thoughts and plans may be functional from the perspective of the individual but threaten the cohesion of social groups. Thus, liberals, who prioritize caring and fairness for individuals, may view emotion as more functional than do conservatives, who prioritize preserving social groups, hierarchies, and institutions. To test this, participants in three studies (total  $N=1,355$ ) rated political partisanship, beliefs about the functionality of emotion, and well-being. Study 3 also assessed how much participants prioritized “individualizing” versus “socially binding” values (Graham et al., 2011). Across all studies, the more liberal participants were, the more they viewed emotion as functional, despite reporting less emotional well-being. In Study 3, the link between liberalism and valuing emotion was mediated by more liberal participants’ greater endorsement of individualizing than socially binding values. These results suggest that emotion is viewed as more functional by those who prioritize the needs of individuals, but as less functional by those who prioritize the cohesion of social groups.

**Keywords** Affect · Politics · Well-being · Social values · Moral values

Societies are becoming increasingly polarized. Over the last few decades, liberals and conservatives in the United States have come to report more animosity toward the opposing political group than warmth toward their own group (Finkel et al., 2020). This widening gulf makes it more important than ever to understand how the attitudes and values of these groups differ. The question addressed in this investigation was whether liberals and conservatives differ in their attitudes toward one of the most fundamental aspects of human experience – emotion. Hints of partisan differences in valuing emotion are longstanding. For decades, people of both political orientations have endorsed stereotypes of bleeding heart liberals and heartless conservatives (Farwell & Weiner, 2000; Scheffer et al., 2022). Currently, conservative

websites sport memes and mugs expressing scorn for liberal emotions, such as “Facts don’t care about your feelings” and “America runs on liberal tears.” A few studies also suggest that liberals and conservatives may hold differing beliefs about the functionality of emotion. Compared to conservatives, liberals are guided more by their current emotions when evaluating political policies (Pliskin et al., 2014), value empathy more (Hasson et al., 2018), and are more emotionally expressive (Peterson et al., 2018). Conservatives place greater value on self-control (Mooijman et al., 2018). But empirical evidence on partisan perspectives on emotion is sparse. Incompatible beliefs may contribute to escalating animosity and misunderstandings across the political divide. Thus, we examined whether people across the partisan spectrum differ in the extent to which they view emotion as functional and, if so, what might explain the difference.

✉ Linda J. Levine  
llevine@uci.edu

<sup>1</sup> Department of Psychological Science, University of California, Irvine, CA, USA

<sup>2</sup> Department of Family Medicine and Public Health, University of California, San Diego, CA, USA

<sup>3</sup> Department of Psychological and Brain Sciences, Texas A&M University, College Station, TX, USA

## Lay beliefs about the functionality of emotion

We define *emotion* (e.g., happiness, anger, sadness) as a multi-component process that typically involves appraising an event as relevant to attaining or maintaining a goal or

valued state; physiological changes; a subjective feeling; a shift in motivational priorities; and expressive and instrumental behavior (e.g., Moors et al., 2013; Scherer, 2019). We define *functional* as beneficial for individuals for adapting to the environment or attaining their goals (Keltner & Gross, 1999). Traditionally, emotion was often portrayed as a dysfunctional reaction that derailed rational thinking and signaled weakness and vulnerability. Unemotional stoicism was idealized as a sign of rationality and maturity (Karnaze & Levine, 2018; Lutz, 1986; Parrott, 1995 2018). Recent academic approaches, while acknowledging that emotions are not always helpful, portray emotion as an essential suite of processes that evolved to guide people's thoughts and plans in a manner that helps them achieve their goals (Keltner & Gross, 1999; Moors et al., 2013). For instance, anger directs people's attention to, and motivates them to overcome, obstacles to their goals. Fear motivates people to avoid danger.

These starkly differing perspectives led researchers to explore laypeople's beliefs about the functionality of emotions. The results show that people hold a range of beliefs about the value of emotions, and that viewing negative emotions as functional can be protective (Brooks, 2014; Crum et al., 2017; Ford & Gross, 2019; Kisley et al., 2019). For example, in an experience sampling study, the more that people viewed negative emotions as adaptive, the weaker the associations between experiencing negative emotions in their daily lives and health problems (Luong et al., 2016). Extending this approach, Karnaze and Levine (2018, 2020) investigated lay people's views about the functionality of emotion overall, irrespective of negative or positive valence. Not surprisingly, people who were more satisfied with their lives, and less depressed and anxious, viewed emotion overall as more functional. Compared to a control group, people who were encouraged to view emotion as functional showed greater physiological reactivity during a distressing film. However, they also reported more acceptance of their feelings, less expressive suppression, and had less lingering effects of the film on their mood (Karnaze & Levine, 2020). The extent to which any specific emotional experience is helpful in a situation varies, but these findings suggest that viewing emotion overall as functional allows people to be more accepting of, and less distressed by, their emotional reactions.

### Political partisanship and beliefs about the functionality of emotion

Given the importance of people's beliefs about the functionality of emotion, how might these beliefs vary across the political spectrum? It should be noted that, in research

on political partisanship in the United States, references to "conservatives" and "liberals" often refer to relative ratings along a continuous scale, anchored by *very conservative* and *very liberal*, rather than to dichotomous groups (e.g. Bakker et al., 2020; Graham et al., 2009; Kivikangas et al., 2021). We follow this convention in the current investigation. To be sure, conservatives both value and experience specific emotions about specific issues, such as pride in country, anger at immigration, and disgust at the violation of traditional social norms (Elad-Strenger et al., 2020; Pliskin et al., 2020; Porat et al., 2016). However, we expected liberals to view emotion overall as more functional – that is, as a healthy and informative response rather than a weakness. Several considerations informed this hypothesis.

Research shows that liberals and conservatives differ in the extent to which they prioritize the needs of individuals versus social groups. These differing values may have implications for their beliefs about the functionality of emotion. Liberals tend to prioritize the needs and rights of individuals irrespective of their race, gender, sexual orientation, disabilities, or social group. Their concerns for social identity and social justice focus on ensuring that all individuals have access to the resources and respect needed to flourish (Janoff-Bulman & Carnes, 2013). In contrast, conservatives prioritize the preservation and cohesion of their social groups and institutions (Janoff-Bulman, 2009; Jost et al., 2003). How might these differing priorities relate to people's beliefs about emotion? Social groups such as families, communities, and countries include individuals with disparate goals. Relying on personal feelings to guide thoughts and plans is often functional for attaining the goals of the individual but can disrupt the harmonious functioning of social groups (Janoff-Bulman, 2009; Mooijman et al., 2018). Thus, emotion may be viewed as more functional by people who are primarily concerned with the needs of individuals, and as less functional by those who are more attuned to the needs of social groups. Consistent with this view, in a cross-national study, people from individualistic cultures endorsed the value of emotional expression more than people from collectivistic cultures (Matsumoto et al., 2008). In an Italian, non-university sample, people who endorsed conservative policies were more motivated to avoid the experience and expression of emotion (Leone & Chirumbolo, 2008).

People's judgments about whether actions are morally right or wrong provide a window into the extent to which they prioritize the needs of individuals versus social groups. Moral Foundation Theory (e.g., Haidt & Graham, 2007; Graham et al., 2011) delineates five concerns of importance to people across cultures. The "individualizing" moral foundations, Care and Fairness, focus on the needs of individuals irrespective of group membership. The "binding" moral

foundations, Loyalty, Authority, and Sanctity, support the cohesion of social groups. When judging whether actions are right or wrong, liberals endorse individualizing more than binding moral values, focusing on care and fairness for individuals irrespective of their social group. Conservatives express a broader range of moral concerns. Their values encompass care and fairness but extend beyond these concerns to the binding foundations that preserve social groups, traditions, and institutions such as those relating to the family and country (Graham et al., 2009). Greater endorsement individualizing than binding moral values, or “progressivism,” has been found to be characteristic of liberalism both in representative samples of U.S. citizens and across numerous world regions (Graham et al., 2011; Kivikangas et al., 2021). In contrast, greater endorsement of binding than individualizing moral values predicts conservatism (Graham et al., 2011), as well as greater emphasis on self-control (Mooijman et al., 2018). Based on these differing social values, we expected liberals, who prioritize caring and justice for individuals regardless of social group, to view emotion overall as more functional than conservatives, who prioritize preserving social groups and institutions.

### Other potential predictors of the relation between partisanship and emotion beliefs

Liberals and conservatives also differ in their openness to experience and subjective well-being. These characteristics too may have implications for their beliefs about emotion. Openness to experience, one of the five major dimensions of personality, refers to people’s tendency to be open-minded, unconventional, and imaginative (John et al., 2008). Another facet of openness to experience is acceptance of feelings (McCrae & John, 1992). Liberals report more openness to experience and tolerance for ambiguity than conservatives, who instead report greater needs for structure, order, and conformity (e.g., Desimoni & Leone, 2014; Sibley et al., 2012). Their greater openness to experience may make liberals more likely than conservatives to embrace, what T. S. Eliot (1944) dubbed, “the general mess of imprecision of feeling.”

People’s subjective well-being may also contribute to an association between partisanship and beliefs about emotion. Understandably, people who experience greater well-being view emotion as more functional (Karnaze & Levine, 2018, 2020). Conservatives report feeling more satisfied with their lives and less depressed and anxious than liberals (e.g., Schlenker, Chambers, & Le, 2012). Conservative ideologies and communities may promote well-being by providing common purpose, encouraging healthy lifestyles (Newman et al., 2019), and rationalizing social inequities (Jost et al.,

2003; Napier & Jost, 2008). Based on their reports of greater well-being, conservatives might be expected to value emotion more than liberals. But Wojcik and colleagues (2015) found that conservatives’ greater satisfaction with life was fully mediated by their tendency to be unrealistically positive in their self-reports. Thus, rather than being associated with valuing emotion, conservatives’ reports of well-being may reflect discomfort with experiencing and expressing negative emotion.

In summary, there are well-documented differences between liberals and conservatives in their social values, openness to experience, and well-being, but a fundamental question remains: do people along the political spectrum differ in how much they value emotion? Thus, we assessed whether political partisanship was related to people’s beliefs about the functionality of emotion and, if so, whether their social values, openness to experience, or well-being explained this association.

### Political partisanship and emotional experience

Do partisan differences in beliefs about the functionality of emotion have implications for people’s day-to-day emotional experience? Here, research findings are decidedly mixed. Viewing emotion as functional may make the experience and expression of intense emotion less threatening (Karnaze & Levine, 2020). Thus, if liberals view emotion as more functional, they may report experiencing intense emotion more and suppressing emotion less. However, some investigators have found that conservatives respond more intensely to negative events than liberals (e.g., Joel et al., 2014; Jost et al., 2003), and show stronger physiological responses to threatening stimuli (Oxley et al., 2008), though recent investigations have failed to replicate partisan differences in physiological reactivity (Bakker et al., 2020; Osmundsen et al., 2022). Other investigators have found that cultural differences in emotion values are greater, and are observed more consistently, than differences in emotional responses to specific events (Tsai et al., 2006). Instead, people’s feelings about specific events depend primarily on their appraisals of the importance of the events and whether the events are seen as promoting or obstructing their goals (Moors et al., 2013; Scherer, 2019, 2020). These varied findings led us to investigate whether people’s beliefs about the functionality of emotion could explain associations between political partisanship and emotional experience.

## The current investigation

The current investigation examined whether people across the partisan spectrum hold differing beliefs about the functionality of emotion. Relying on emotion to guide decisions can promote the goals of the individual but jeopardize the harmony of social groups. Thus, we expected liberals, who prioritize the needs of individuals, to view emotion as more functional than conservatives, who prioritize the cohesion of social groups. We also assessed whether liberals' greater openness to experience (Desimoni & Leone, 2014), or conservatives' reports of greater well-being (Wojcik et al., 2015), could help to explain the relation of partisanship to emotion beliefs.

In three studies, participants completed measures of: (a) the extent to which their political orientation was conservative or liberal, (b) the extent to which they viewed emotion as functional, and (c) their subjective well-being. In Study 1, we also assessed participants' openness to experience. In Study 3, we measured how much participants prioritized "individualizing" versus "socially binding" values (Graham et al., 2011). This allowed us to test whether the expected relation between liberal partisanship and viewing emotion as functional was mediated by liberals' greater endorsement of "individualizing" than "socially binding" values. Males, and people who are more religious, tend to be more politically conservative and also tend to place greater value on emotional control (Carlson et al., 2021; Kaufmann, 2004). Therefore, we included gender (in all studies) and religiosity (measured in Studies 1 and 2) as covariates in analyses of the relation between partisanship and beliefs about emotion. Finally, we explored whether participants' emotion beliefs could explain associations between partisanship and emotional intensity or emotion regulation (Study 1), or associations between partisanship and emotional responses to a specific personal event (Study 2) or political event (Study 3), after adjusting for the appraised importance and valence of those events.

Data for the three studies are available at the Open Science Framework (OSF) at <https://osf.io/yebmt/>. Additional descriptive statistics, and correlations among variables in each study, are available online via the same link in Supplemental Tables S1, S2, and S3.

### Study 1

Study 1 examined the relation between political partisanship and beliefs about the functionality of emotion. We expected more liberal participants to view emotion as more functional. We also assessed whether participants' openness to experience or well-being could explain the expected link

between liberal partisanship and viewing emotion as functional. Finally, we explored whether participants' beliefs about emotion could explain associations between partisanship and the intensity of emotion participants reported or the strategies they used to regulate emotion.

## Method

This study was part of a larger investigation of lay beliefs about emotion which did not address political partisanship (Karnaze & Levine, 2020). The larger investigation assessed the test-retest reliability of some emotion beliefs, so participants completed two questionnaires. Only procedures and measures relevant to the current research questions are reported here.

### Participants

Undergraduates ( $N = 189$ ) at a university in California were recruited from the social science subject pool and completed two online questionnaires for course credit. From a sample of 193 participants who completed both questionnaires, we excluded those who did not report political partisanship or beliefs about the functionality of emotion. A post-hoc power analysis using the G\*Power 3.1 (Faul et al., 2009) showed that, for the regression model of our main analysis, our final sample afforded statistical power of greater than 99% to detect the observed effect size ( $f^2 = 0.20$ ) with an alpha level of 0.05. The mean age of participants was 20.67 years ( $SD = 3.09$  years). Reflecting the gender composition of the social science subject pool, the majority of the participants (89%) were female. Participants reported their race-ethnicity as Black (1%), East Asian (29%), Hispanic/Latino (19%), Middle Eastern (6%), White (11%), Pacific Islander (7%), South Asian (2%), Southeast Asian (5%), or other (20%). Procedures and measures were approved by the University Institutional Review Board (IRB).

### Procedure and Measures

**Time 1 Questionnaire** Participants completed the first questionnaire about three weeks after the academic term started. **Beliefs about the Functionality of Emotion.** We assessed participants' beliefs about the functionality of emotion using Karnaze and Levine's (2018) 8-item measure of help and hinder theories about emotion. Participants rated how much they agreed with four statements that depicted emotion overall as helpful ("I believe it's healthy to feel whatever emotion you feel," "Feelings give direction to life," "I learn through my feelings," "The variety of human feelings makes life more interesting"), and four statements that depicted emotion overall as harmful (e.g., "Feelings are a

weakness humans have,” “One should never be guided by emotions,” “It is usually a waste of time to think about your emotions,” “People would be better off if they felt less and thought more”). Ratings were made using a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). We computed an overall score for beliefs about the functionality of emotion by reverse-coding hinder items and averaging all items. Higher values indicated viewing emotion as more functional (Cronbach’s  $\alpha=0.83$ ).

**Openness to Experience.** At Time 1, we assessed the Openness to Experience dimension of personality using 10 items from the Big Five Inventory (John et al., 2008). Participants rated how much they viewed themselves as imaginative, curious, artistic, open-minded, and unconventional, using a scale ranging from 1 (*disagree strongly*) to 7 (*agree strongly*);  $\alpha=0.77$ .

**Well-being composite.** We assessed well-being by having participants rate: (a) their satisfaction with life, (b) depression, and (c) anxiety, consistent with Diener’s (1984) conception of subjective well-being as comprised of both a cognitive judgment of overall satisfaction with life and affective experiences. Participants completed the five-item Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). They rated each item (e.g. “I am satisfied with my life,” “In most ways, my life is close to ideal”) from 1 (*strongly disagree*) to 7 (*strongly agree*). Ratings were summed to create an overall score;  $\alpha=0.87$ . The 10-item Center for Epidemiologic Studies Depression Scale (CESD-10; Andresen et al., 1994) was used to assess how often participants felt symptoms of depression during the past week (e.g., “I could not ‘get going’”) using a scale from 1 (*Rarely or none of the time [Less than 1 day]*) to 4 (*All of the time [5–7 days]*);  $\alpha=0.86$ . We assessed how anxious participants generally felt using the trait anxiety subscale of the State-Trait Anxiety Inventory (Spielberger, 1983). The 20 items (e.g., “I worry too much over something that really doesn’t matter”) were rated from 1 (*almost never*) to 4 (*almost always*);  $\alpha=0.92$ .

Consistent with prior research, we created a composite index of well-being (e.g., Anderson et al., 2012) by standardizing each variable and then subtracting the mean of depression and anxiety from satisfaction with life. This was done for parsimony; because we were interested in participants’ overall well-being rather than individual components; and because depression and anxiety were highly correlated with each other ( $r=.78$ ) and negatively correlated with satisfaction with life (depression:  $r=-.52$ ; anxiety:  $r=-.58$ ). For transparency, results for each independent scale are available online (<https://osf.io/yebmt/>) in Supplemental Table S1.

**Intensity of Emotional Experience.** The six-item Impulse Strength subscale of the Berkeley Expressivity

Questionnaire (Gross & John, 1995) assessed the extent to which participants experienced intense emotion accompanied by physical and behavioral changes. Participants rated items such as, “I experience my emotions very strongly” and “My body reacts very strongly to emotional situations,” using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*);  $\alpha=0.86$ .

**Emotion Regulation.** The Emotion Regulation Questionnaire (Gross & John, 2003) included six items assessing the use of reappraisal ( $\alpha=0.86$ ) and four items assessing the use of expressive suppression ( $\alpha=0.66$ ), using a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

**Time 2 Questionnaire** Participants completed the second questionnaire about four weeks after completing the first questionnaire.

**Political Partisanship.** We assessed participants’ political partisanship with four questions. Participants rated “When considering your political beliefs, do you usually think of yourself as conservative or liberal” from 1 (*strongly conservative*) to 7 (*strongly liberal*). Participants rated their political beliefs about social issues, and rated their political beliefs about economic issues, using the same scale. Participants rated their political orientation from 1 (*strongly republican*) to 7 (*strongly democrat*). We used the mean of these four items as the measure of partisanship;  $\alpha=0.91$ . Higher values represent more liberal partisanship.

**Demographics.** Participants answered three questions about the centrality of religion in their lives. First, participants rated how important religion was to them, from 1 (*not at all*) to 9 (*extremely*). Second, they rated, “Other than occasional weddings, baptisms, or funerals, thinking back over the past 6 months, how many times do you attend religious services during an average month,” from 1 (*not at all*) to 7 (*several times a day*). Third, they rated, “Thinking back over the past 6 months, how many times did you engage in religious practices (such as reading religious texts or praying) during an average month,” from 1 (*not at all*) to 7 (*several times a day*). These three items were z-scored and averaged to create a measure of religiosity;  $\alpha=0.87$ . Participants also completed questions regarding their age, gender, and race-ethnicity.

## Results and discussion

**Political Partisanship and Beliefs about Emotion.** Overall, participants tended to be liberal ( $M=5.11$ ,  $SD=1.13$ ) and to view emotion as functional ( $M=3.82$ ,  $SD=0.49$ ; scale range: 1 to 5). As expected, the more liberal participants were, the more they viewed emotion as functional,  $r(187)=0.27$ ,  $p<.001$ . Comparing participants in the top

**Table 1** Descriptive statistics and correlations for variables in the regression model in study 1 (N=189)

Variables	M	(SD)	1	2	3	4	5
1. Partisanship <sup>a</sup>	5.11	(1.13)	–				
2. Functionality of emotion <sup>b</sup>	3.82	(0.49)	0.27***	–			
3. Openness to experience	3.40	(0.59)	0.07	0.22**	–		
4. Well-being composite	0.01	(1.75)	–0.13	0.25***	0.07	–	
5. Religiosity	0.00	(0.89)	–0.13	–0.01	–0.06	–0.02	–
6. Sex <sup>c</sup>	0.11	(0.31)	–0.12	–0.08	0.09	–0.03	0.00

Note. <sup>a</sup>Higher values represent more liberal partisanship. <sup>b</sup>Higher values represent the belief that emotion is more functional. <sup>c</sup>Female = 0, Male = 1. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

**Table 2** Mediation models predicting emotional intensity and expressive suppression in study 1

IV	M	DV	Total effect	IV → M	M → DV	Indirect effect		
			B (SE)	B (SE)	B (SE)	Effect	SE	95% CI
A. Partisanship	Emotion beliefs	Emotional intensity	0.31 (0.08)***	0.12 (0.03)***	0.61 (0.19)**	0.07	0.03	[0.02, 0.15]
B. Partisanship	Emotion beliefs	Suppression	–0.16 (0.07)*	0.12 (0.03)***	–0.47 (0.17)**	–0.06	0.03	[–0.11, –0.01]

Notes. N = 188. M = Mediator; SE = Standard error; CI = Confidence interval. For partisanship, higher values represent more liberal partisanship. For emotion beliefs, higher values represent the belief that emotion is more functional. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

versus bottom quartiles for the composite measure of partisanship also showed that liberals viewed emotion as more functional ( $M = 3.94$ ,  $SD = 0.50$ ) than conservatives ( $M = 3.57$ ,  $SD = 0.45$ ),  $t(106) = 4.02$ ,  $p < .001$ ,  $d = 0.77$ . We conducted a regression analysis to find out whether liberal partisanship predicted viewing emotion as more functional after accounting for participants’ openness to experience, well-being, religiosity, and gender (0 = female, 1 = male). Descriptive statistics and correlations among variables in the regression analysis are shown in Table 1. The model was significant,  $R^2 = 0.19$ ,  $F(5, 182) = 8.49$ ,  $p < .001$ . Variance inflation values ranged from 1.02 to 1.06; thus, multicollinearity was not a concern. Emotion was viewed as more functional by participants who were more liberal,  $B = 0.13$ ,  $SE = 0.03$ ,  $t = 4.24$ ,  $p < .001$ , 95% CI [0.07, 0.19], more open to experience,  $B = 0.16$ ,  $SE = 0.06$ ,  $t = 2.76$ ,  $p = .01$ , 95% CI [0.04, 0.27], and by participants who reported greater well-being,  $B = 0.08$ ,  $SE = 0.02$ ,  $t = 4.02$ ,  $p < .001$ , 95% CI [0.04, 0.11]. Beliefs about emotion were not predicted by religiosity,  $B = 0.02$ ,  $SE = 0.04$ ,  $t = 0.65$ ,  $p = .52$ , 95% CI [–0.05, 0.10], or gender,  $B = –0.08$ ,  $SE = 0.11$ ,  $t = –0.70$ ,  $p = .48$ , 95% CI [–0.29, 0.14]. Thus, participants who were more liberal, more open to experience, and those with greater well-being, viewed emotion as more functional.

**Openness to Experience and Well-being.** To find out whether openness to experience or well-being could explain the link between liberal partisanship and viewing emotion as functional, we first examined whether these variables were positively correlated with liberal partisanship. As Table 1 shows, openness to experience was not significantly related to political partisanship in this sample, despite the common finding in past research that liberals are more open

to experience (e.g., Desimoni & Leone, 2014). More liberal participants reported less well-being, consistent with past research (Napier & Jost, 2008; Wojcik et al., 2015). Given that openness to experience was not associated with liberal partisanship, and well-being was negatively associated with liberal partisanship, neither variable explained the positive association between liberal partisanship and valuing emotion.

**Political partisanship and emotional experience**

Finally, we examined whether beliefs about the functionality of emotion explained associations between partisanship and emotional intensity or emotion regulation. The more liberal participants were, the more intensely they reported experiencing emotion,  $r(186) = 0.26$ ,  $p < .001$ , and the less they reported suppressing emotion,  $r(186) = –0.16$ ,  $p = .03$ . Partisanship was not associated with reappraisal,  $r(186) = 0.06$ ,  $p = .41$ . We conducted separate mediation analyses to find out whether viewing emotion as functional explained more liberal participants’ tendency to report: (a) experiencing emotion more intensely, or (b) suppressing emotional expression less. These analyses were conducted in SAS using Hayes’ (2022) Process v4.1, model 4, with 5000 bootstrapped iterations. The results are shown in Table 2.

As Panel A of Table 2 shows, the association between liberal partisanship and reporting more intense emotion was mediated by viewing emotion as more functional, as indicated by the confidence interval for the indirect effect which did not include zero; Indirect effect = 0.07,  $SE = 0.03$ , 95% CI [0.02, 0.15]. As Panel B of Table 2 shows, the association between liberal partisanship and reporting less expressive

suppression was also mediated by viewing emotion as more functional; Indirect effect =  $-0.06$ ,  $SE = 0.03$ , 95% CI  $[-0.11, -0.01]$ . Effect sizes were small but these findings show that viewing emotion as functional contributed to the tendency of more liberal participants to report experiencing more intense emotion and suppressing emotional expression less. The results for reverse mediation models were directionally weaker for emotional intensity; Indirect effect =  $0.03$ ,  $SE = 0.01$ , 95% CI  $[0.01, 0.05]$ , and not significant for suppression; Indirect effect =  $0.01$ ,  $SE = 0.01$ , 95% CI  $[-0.001, 0.03]$ .

**Discussion.** The results of Study 1 showed that, the more liberal participants were, the more they viewed emotion as more functional. Greater openness to experience and greater subjective well-being were also associated with viewing emotion as more functional but did not account for the link between liberalism and valuing emotion. Specifically, openness to experience was not related to partisanship in this sample. More liberal participants viewed emotion as more functional despite reporting less well-being. Consistent with valuing emotion, the more liberal participants were, the more they reported experiencing emotions intensely, and the less they reported suppressing emotional expression. Viewing emotion as more functional mediated the associations between liberal partisanship and both greater emotional intensity and less expressive suppression.

## Study 2

Study 2 assessed the relation between political partisanship, beliefs about the functionality of emotion, and well-being, in a larger and more politically diverse sample. We also assessed whether partisanship was related to participants' emotional responses to a specific, personal experience of achievement or failure – receiving an exam grade that was better or worse than expected – after accounting for their appraisals of the importance and valence of their exam grades.

## Method

Undergraduates completed online questionnaires two weeks before, and days after, receiving their grades on a midterm exam in an introductory course. This study was part of a larger project on forecast emotion (Carlson et al., 2021; Lench et al., 2019; Lench et al., 2021). Prior publications did not examine the relation of political ideology to beliefs about the functionality of emotion.

## Participants

Undergraduates ( $N = 629$ ) completed two online questionnaires for partial course credit. We recruited undergraduate students from large, public research universities in California and Texas with a range of political beliefs by inviting participation from all students in introductory psychology courses in the fall term in which the instructor consented. From a total sample of 716 participants who were part of the larger project, we excluded data from participants who did not complete the questionnaire after they learned their exam grade, did not report political partisanship, or did not complete the measure of beliefs about emotion. A post-hoc power analysis using the G\*Power 3.1 (Faul et al., 2009) showed that our final sample afforded greater than a statistical power of 99% to detect the observed effect size ( $f^2 = 0.11$ ) with an alpha level of 0.05 for the regression model of our main analysis.

The final sample included 351 undergraduates from California and 278 undergraduates from Texas. Participants reported their gender as female (77%) or male (23%). The mean age of participants was 19.56 years ( $SD = 2.75$ ). They reported their race-ethnicity as Black (3%), East Asian (20%), Hispanic/Latino (24%), Middle Eastern (2%), South Asian (7%), White (33%), or multiple or other (6%); 5% did not report race-ethnicity. Procedures and measures were approved by IRBs at the universities.

## Procedure and Measures

**Time 1 Questionnaire** Two weeks before the first midterm exam in a psychology course, participants were emailed a link to an online questionnaire which they completed within 5 days.

**Expected Grade.** They reported the grade they expected to receive on their upcoming exam on a 13-point scale from F (1) to A+ (13).

**Appraised Exam Importance.** Participants rated the importance of their exam grade on a scale from 1 (*not at all important*) to 9 (*extremely important*).

**Beliefs about the Functionality of Emotion.** We assessed participants' beliefs about the functionality of emotion using an 8-item measure, adapted from Karnaze and Levine's (2018) measure of help and hinder theories about emotion. Six of the eight items were identical to those used in Study 1. The last two items depicting emotion as helpful differed and, due to experimenter error, were administered at Time 2. Excluding these items did not change the pattern or significance of the results. Therefore, we included these two items in the analyses. Specifically, participants rated how much they agreed with four statements that depicted emotion overall as helpful ("I believe it's healthy to feel whatever

emotion you feel,” “Feelings give direction to life,” “Emotions help people to get along in life,” “It is important for me to be in touch with my feelings”). Participants also rated how much they agreed with four statements that depicted emotion overall as harmful (e.g., “Feelings are a weakness humans have,” “One should never be guided by emotions,” “It is usually a waste of time to think about your emotions,” “People would be better off if they felt less and thought more”). Participants rated their agreement with each item from 1 (*not at all*) to 9 (*extremely*). As in Study 1, we computed an overall score for beliefs about the functionality of emotion by reverse-coding hinder items and then averaging all items;  $\alpha = 0.78$ .

**Well-Being composite.** As in Study 1, we assessed participants’ well-being using three measures: (a) the Satisfaction with Life Scale (Diener et al., 1985),  $\alpha = 0.86$ ; (b) the Center for Epidemiologic Studies Depression Scale (CESD-10),  $\alpha = 0.81$ ; and (c) the trait anxiety subscale of the State-Trait Anxiety Inventory (Spielberger, 1983),  $\alpha = 0.92$ . Depression and anxiety were highly correlated with each other ( $r = .77$ ,  $p < .001$ ) and negatively correlated with satisfaction with life (depression:  $r = -.46$ ,  $p < .001$ ; anxiety:  $r = -.54$ ,  $p < .001$ ). Therefore, as in Study 1, we created a composite index of well-being by standardizing each variable and subtracting the mean of depression and anxiety from satisfaction with life. Results for each independent scale are available online (<https://osf.io/yebmt/>) in Supplemental Table S2.

**Demographics.** Participants also reported their age, gender, and race-ethnicity.

**Time 2 Questionnaire.** Two days after participants learned their grades, they were emailed a link to the second questionnaire which they completed that evening. Participants verified that they had seen their exam grade. If not, they were instructed how to check it online before proceeding.

**Received exam grade and emotional response.** Participants reported the grade they received on a 13-point scale that ranged from F (1) to A+ (13). They then rated how happy, and how unhappy, they felt about their grades, from 1 (*not at all*) to 9 (*extremely*). Participants’ ratings of happiness and unhappiness about their exam grades were strongly negatively correlated,  $r(589) = -0.85$ ,  $p < .001$ . Therefore, consistent with past studies, we created a composite measure of emotion by subtracting each participant’s rating of unhappiness from their rating of happiness (e.g., Kahneman & Krueger, 2006). Higher values indicated greater happiness.

**Political partisanship.** We assessed political partisanship by asking participants to rate, “When considering your political beliefs, do you usually think of yourself as liberal or conservative,” from 1 (*strongly liberal*) to 7 (*strongly conservative*). For consistency with Study 1, this scale was

reverse-coded so that higher values represented being more liberal.

**Religiosity.** We assessed religiosity using the mean of the same three ( $z$ -scored) questions as in Study 1;  $\alpha = 0.87$ .

## Results and discussion

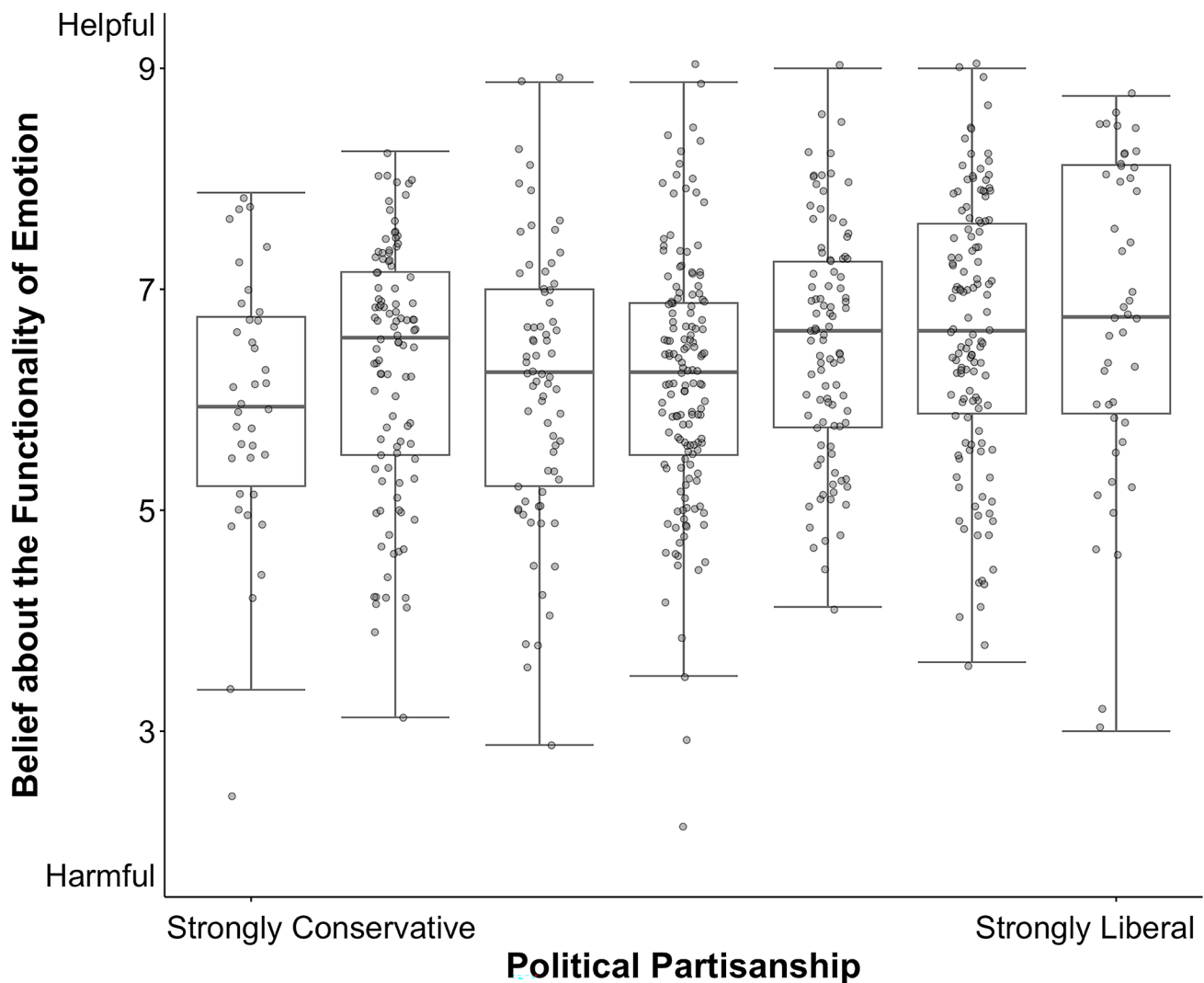
**Political Partisanship and Beliefs about Emotion.** On average, participants rated their partisanship as moderate ( $M = 4.14$ ,  $SD = 1.70$ ; scale range: 1 to 7) and tended to view emotion as functional ( $M = 6.35$ ,  $SD = 1.19$ ; scale range: 1 to 9). As expected, and replicating Study 1, the more liberal participants were, the more they viewed emotion as functional,  $r(627) = 0.17$ ,  $p < .001$ . Figure 1 depicts the relation between partisanship and beliefs about emotion. Comparing participants who identified as conservative (ratings of 1, 2, or 3 on partisanship) versus liberal (ratings of 5, 6, or 7) also showed that liberals viewed emotion as more functional ( $M = 6.61$ ,  $SD = 1.19$ ) than did conservatives ( $M = 6.18$ ,  $SD = 1.17$ ),  $t(478) = 3.89$ ,  $p < .001$ ,  $d = 0.34$ .

We conducted a regression analysis to find out whether liberal partisanship predicted viewing emotion as more functional after accounting for well-being, religiosity, and gender (0 = female, 1 = male). The model was significant,  $R^2 = 0.10$ ,  $F(4, 586) = 16.35$ ,  $p < .001$ . Variance inflation values ranged from 1.02 to 1.26, indicating that multicollinearity was not a concern. Viewing emotion as functional was predicted by liberal partisanship,  $B = 0.14$ ,  $SE = 0.03$ ,  $t = 4.62$ ,  $p < .001$ , 95% CI [0.08, 0.20], greater well-being,  $B = 0.18$ ,  $SE = 0.03$ ,  $t = 6.24$ ,  $p < .001$ , 95% CI [0.12, 0.23], and being female,  $B = -0.29$ ,  $SE = 0.11$ ,  $t = -2.59$ ,  $p = .01$ , 95% CI [-0.50, -0.07]. Religiosity did not predict viewing emotion as functional,  $B = 0.02$ ,  $SE = 0.06$ ,  $t = 0.30$ ,  $p = .77$ , 95% CI [-0.10, 0.13]. Examining the correlation between partisanship and well-being showed that more liberal participants reported less, rather than greater, well-being,  $r(593) = -0.16$ ,  $p < .001$ . Thus, more liberal participants viewed emotion as more functional despite lower well-being and after accounting for gender and religiosity.

We also included participants’ exam grades, and their emotional response to their exam grades, as covariates in analyses of the relations among partisanship, beliefs about emotion, and well-being. Including these variables did not change the pattern or significance of any of the findings, so results are reported without these covariates.

**Political Partisanship and Emotional Experience.** Next, we explored whether participants’ beliefs about emotion explained any association between their partisanship and emotional responses to their exam grades, after taking the appraised importance and valence of their grades into account. Preliminary analyses showed that, at Time 1, participants appraised their exam grade as fairly important





**Fig. 1** In Study 2, participants who were more liberal viewed emotion as more functional

Note: Dots in this figure represent beliefs about the functionality of emotion for individual participants at each value on the 7-point scale

( $M=6.45$ ,  $SD=2.23$ ). On average, students expected to receive an A- ( $M=10.60$ ,  $SD=1.59$ ). At Time 2, however, the average grade that students actually received was a B ( $M=8.88$ ,  $SD=2.92$ ). A one-factor ANOVA showed that the 89 participants who received the grade they expected ( $M=5.46$ ,  $SD=2.88$ ), and the 152 participants who received a higher grade than expected ( $M=6.05$ ,  $SD=2.43$ ), were happier about their grade than the 350 participants who received a lower grade than expected ( $M=-1.34$ ,  $SD=4.34$ ),  $F(2, 588)=263.97$ ,  $p<.001$ . Scheffe post-hoc tests showed no difference in happiness between those who received the grade they expected versus a higher grade; mean difference = 0.59, 95% CI [-0.64, 1.81]. Therefore, we defined the valence of the exam outcome as positive for those who

of political partisanship. Medians are represented by the horizontal line in each box and the interquartile range (25th – 75th percentile) is represented by the top and bottom lines of boxes

received the grade they expected or better, and as negative for those who received a worse grade than expected.

We first assessed whether partisanship was related to participants' emotional responses to their exam grades. Partial correlations showed that, after adjusting for the appraised importance of their grades and the specific grades received, political partisanship was not associated with feelings about the exam outcome, regardless of whether the valence of outcome was positive,  $r(236)=-0.03$ ,  $p=.68$ , or negative,  $r(348)=0.09$ ,  $p=.08$ . Finally, we assessed whether, independent of partisanship, participants' beliefs about the functionality of emotion were related to their emotional responses to their exam grades. A partial correlation, adjusting for appraised importance and the specific grades

received, showed that, for participants who had a positive exam outcome, the more they viewed emotion as functional, the happier they felt about their grades,  $r(236)=0.16$ ,  $p=.01$ . For participants who received a lower grade than expected, no relation was found between participants' beliefs about emotion and their feelings about their grades,  $r(348)=0.05$ ,  $p=.36$ .

**Discussion.** Study 2 replicated key results of Study 1 with a larger and more politically diverse sample. Participants who were more liberal viewed emotion as more functional. Participants who reported greater well-being also viewed emotion as more functional. However, greater well-being did not explain the relation between liberal partisanship and viewing emotion as more functional. Instead, more liberal participants viewed emotion as more functional despite reporting less well-being. In Study 2, we also explored whether participants' beliefs about the functionality of emotion could account for any association between partisanship and their emotional responses to a specific personal experience of success or failure – receiving a favorable or unfavorable exam grade. These analyses included as covariates participants' appraisals of the importance of their grades and the specific grades received. We found that participants' feelings about their exam grades were not related to political partisanship. Irrespective of partisanship, those who viewed emotion as more functional reported feeling happier about getting a grade that they expected or higher. Beliefs about emotion were not associated with feelings about receiving a grade that was lower than expected.

### Study 3

In Study 3, we again assessed the relation between political partisanship, beliefs about the functionality of emotion, and well-being, in a politically diverse sample. We also assessed how much participants prioritized “individualizing” versus “socially binding” values (Graham et al., 2011). This allowed us to test whether the expected relation between liberal partisanship and viewing emotion as functional was mediated by liberals' greater endorsement of “individualizing” than “socially binding” values. Finally, we explored whether participants' beliefs about the functionality of emotion explained the association between partisanship and emotional responses to an experience of political success or failure – Biden's victory in the 2020 U.S. presidential election.

## Method

Undergraduates completed questionnaires before and after the 2020 U.S. presidential election as part of a larger investigation of forecast emotions.

### Participants

Undergraduates ( $N=537$ ) from public universities in California and Texas completed two online questionnaires for partial course credit. From a total sample of 547 undergraduates, we excluded data from participants who did not complete the measures of political partisanship, beliefs about the functionality of emotion, or moral foundations. A post-hoc power analysis using the G\*Power 3.1 (Faul et al., 2009) showed that, for the regression model of our main analysis, our final sample afforded statistical power of greater than 99% to detect the observed effect size ( $f^2 = 0.15$ ) with an alpha level of 0.05. Of the participants, 439 were from California, and 98 were from Texas. Participants reported their gender as female (77%), male (20%), or other (3%). Their mean age was 20.78 years ( $SD=3.60$ ). Participants reported their race-ethnicity as Black (2%), East Asian (20%), Hispanic/Latino (31%), Middle Eastern (3%), Pacific Islander (4%), South Asian (8%), White (23%) or another race-ethnicity (9%). The study was in compliance with the IRBs at the universities.

### Procedure and Measures

**Time 1 Questionnaire** Participants completed the first questionnaire about a week before the November 3, 2020 presidential election (October 22 - November 2).

**Political Partisanship.** As in Study 2, we assessed political partisanship on a scale from 1 (*strongly liberal*) to 7 (*strongly conservative*). Ratings were reverse-coded so that higher values represented being more strongly liberal.

**Beliefs about the Functionality of Emotion.** We assessed participants' beliefs about the functionality of emotion using the same eight items as in Study 1 ( $\alpha=0.77$ ). Participants rated their agreement with each item on a scale from 1 (*not at all*) to 9 (*extremely*).

**Moral Foundations Questionnaire.** To assess the extent to which participants endorsed individualizing versus social binding values, they completed the 20-item version of the Moral Foundations Questionnaire (Graham et al., 2011). This measure assesses the extent to which individuals prioritize five moral concerns: Care (e.g., “Compassion for those who are suffering is the most crucial virtue”), Fairness (e.g., “When the government makes laws, the number one principle should be ensuring that everyone is treated fairly”), Loyalty (e.g., “People should be loyal to their family members,

even when they have done something wrong”), Authority (e.g., “Respect for authority is something all children need to learn”), and Sanctity (e.g., “I would call some acts wrong on the grounds that they are unnatural”). Each foundation was assessed using four items which were rated using a 6-point scale. Cronbach’s  $\alpha$  for each subscale was 0.63 for Care, 0.71 for Fairness, 0.62 for Loyalty, 0.66 for Authority, and 0.62 for Sanctity. In accordance with instructions for calculating the moral progressivism score (Graham et al., 2011), we computed participants’ relative endorsement of “individualizing” versus “socially binding” foundations by subtracting the average of the Loyalty, Authority, and Sanctity subscales from the average of the Care and Fairness subscales.

**Well-Being Composite.** As in Studies 1 and 2, we assessed participants’ well-being using the Satisfaction with Life Scale,  $\alpha=0.85$ , and the Center for Epidemiologic Studies Depression Scale (CESD-10),  $\alpha=0.84$ . However, trait Anxiety was not assessed in Study 3. Satisfaction with life was negatively correlated with depression ( $r=-.46$ ). For parsimony and consistency with Studies 1 and 2, we created a composite index of well-being by standardizing and then subtracting depression from satisfaction with life. The well-being composite index was positively associated with satisfaction with life ( $r=.85$ ) and negatively associated with depression ( $r=-.86$ ). Results for the independent scales are available online (<https://osf.io/yebmt/>) in Supplemental Table S3.

**Demographics.** Participants also reported their age, gender, and race-ethnicity. Religiosity was not assessed in Study 3.

**Time 2 Questionnaire** Participants completed the second questionnaire about a week after the election (November 9–12, 2020).

**Appraised Importance and Valence.** We assessed appraised importance by having participants rate how important the outcome of the 2020 presidential election was to them, using a scale from 1 (*not at all important*) to 7 (*extremely important*). We assessed appraised valence by having participants rate their agreement that, “It will be good for the country that Biden was elected president,” from 1 (*strongly disagree*) to 7 (*strongly agree*).

**Emotional Response to the Election.** Participants rated how intensely happy, angry, and scared they were feeling about Joe Biden being elected president, from 1 (*not at all*) to 9 (*extremely*).

**Vote.** Participants indicated whether they voted, and if so, for whom.

## Results and discussion

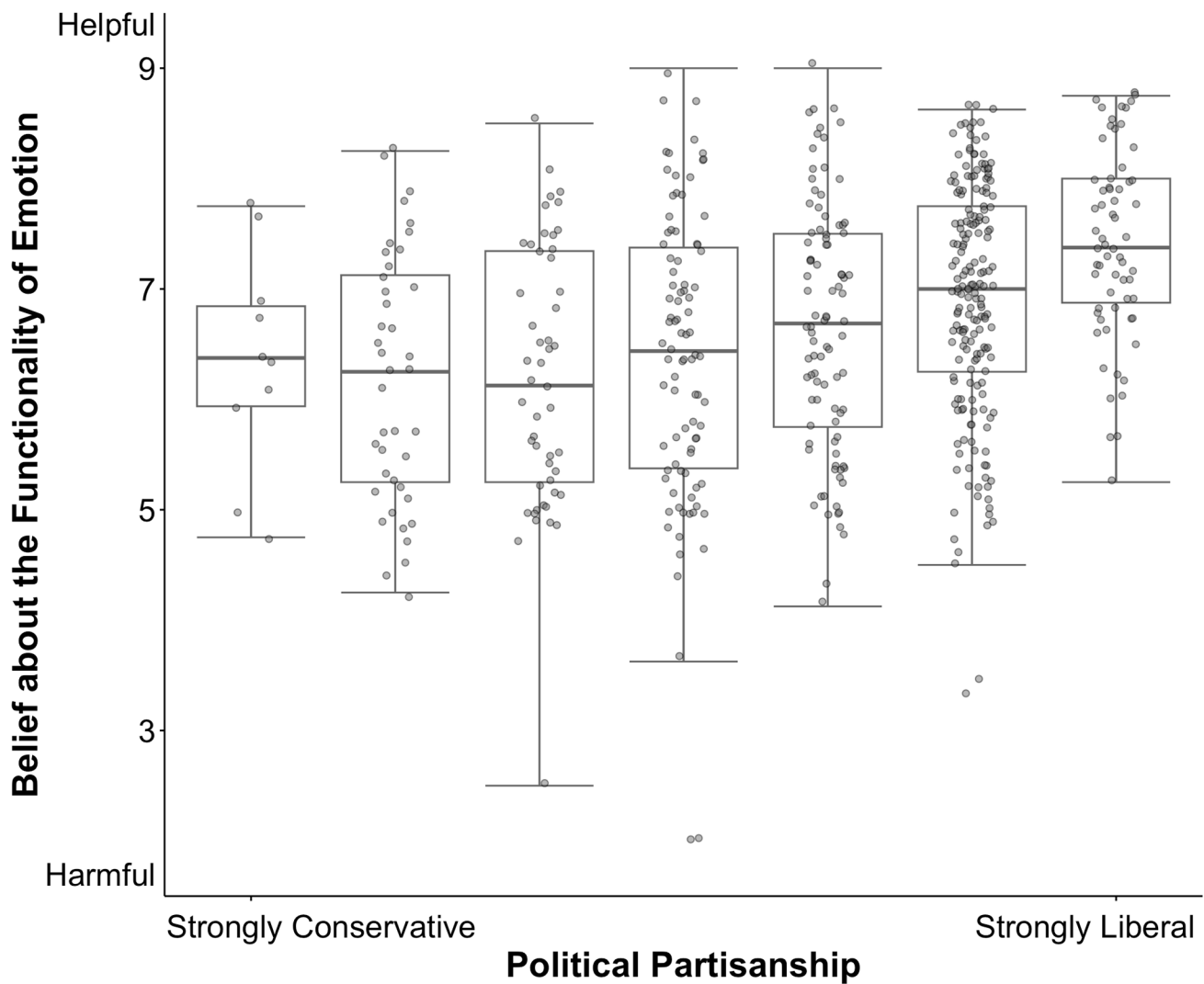
**Preliminary Analyses.** The week after the election, the majority of participants indicated that they had voted (66%); fewer did not vote (12%), indicated that they were not eligible to vote (10%) or did not report whether they had voted (13%). Of those who voted, most participants voted for Biden (81%); fewer voted for Trump (17%) or another candidate (3%). On average, participants appraised the election outcome as important ( $M=6.88$ ,  $SD=2.23$ ), and agreed that Biden’s election was good for the country ( $M=5.24$ ,  $SD=1.63$ ).

**Political Partisanship and Beliefs about Emotion.** On average, participants were moderately liberal ( $M=4.93$ ,  $SD=1.53$ ; scale range: 1 to 7), and tended to view emotion as functional ( $M=6.69$ ,  $SD=1.17$ ; scale range: 1 to 9). Replicating the results of Studies 1 and 2, the more liberal participants were, the more they viewed emotion as functional,  $r(535)=0.30$ ,  $p<.001$ . This association is shown in Fig. 2. Comparing participants who identified as conservative (ratings of 1, 2, or 3 on partisanship) versus liberal (ratings of 5, 6, or 7) also showed that liberals viewed emotion as more functional ( $M=6.93$ ,  $SD=1.07$ ) than did conservatives ( $M=6.20$ ,  $SD=1.14$ ),  $t(445)=5.91$ ,  $p<.001$ ,  $d=0.67$ .

We conducted a regression analysis to find out whether liberal partisanship predicted viewing emotion as more functional after accounting for participants’ well-being and gender (0 = female, 1 = male). Data from participants who reported their gender as other than male or female (3%) were excluded from this analysis because this group was too small to analyze meaningfully. The regression model was significant,  $R^2=0.13$ ,  $F(3, 516)=25.57$ ,  $p<.001$ . Variance inflation values ranged from 1.04 to 1.09, indicating that multicollinearity was not a concern. Viewing emotion as functional was predicted by liberal partisanship,  $B=0.22$ ,  $SE=0.03$ ,  $t=6.77$ ,  $p<.001$ , 95% CI [0.15, 0.28], greater well-being,  $B=0.21$ ,  $SE=0.06$ ,  $t=3.71$ ,  $p<.001$ , 95% CI [0.10, 0.33], and being female,  $B=-0.47$ ,  $SE=0.12$ ,  $t=-3.93$ ,  $p<.001$ , 95% CI [-0.70, -0.23].

We examined the correlation between partisanship and well-being to find out if well-being could explain the link between liberalism and viewing emotion as more functional. However, liberal partisanship was associated with less, rather than greater, well-being,  $r(534)=-0.22$ ,  $p<.001$ . Taken together, these findings showed that more liberal participants viewed emotion as more functional after accounting for their gender and despite reporting less well-being.

**Mediation Analyses.** To find out whether participants’ moral and social values explained the link between liberal partisanship and viewing emotion as functional, we calculated progressivism. Following Graham and colleagues (2011), we defined progressivism as the extent to which



**Fig. 2** In study 3, participants who were more liberal viewed emotion as more functional  
 Note: In this figure, dots show beliefs about the functionality of emotion for individual participants at each value on the 7-point scale of

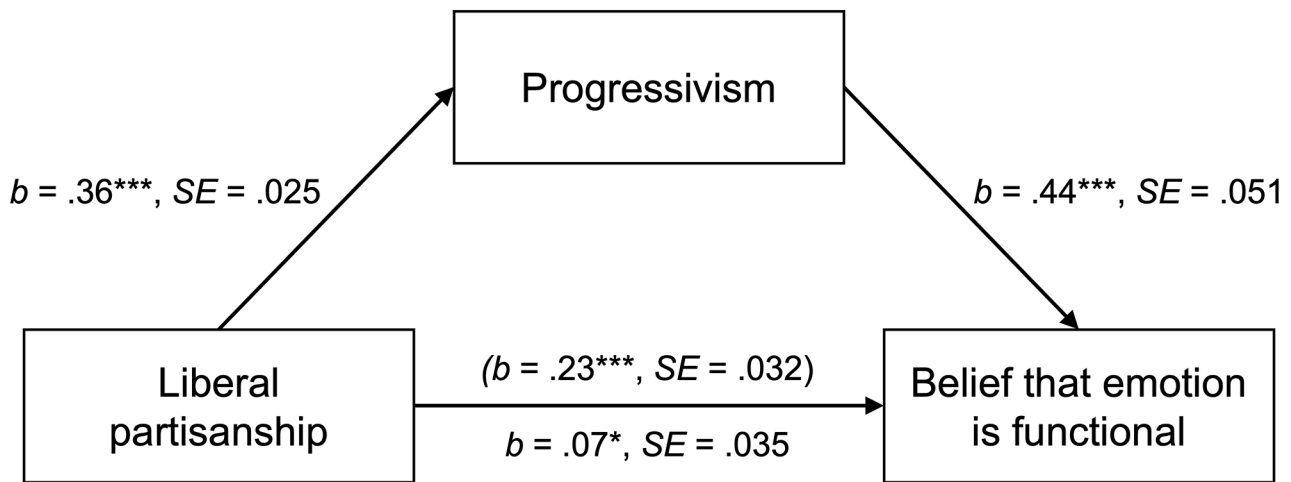
political partisanship. Medians are represented by the horizontal line in each box and the interquartile range (25th – 75th percentile) is represented by the top and bottom lines of boxes

each participant prioritized the “individuating” moral foundations of Care and Fairness more than the “socially binding” moral foundations of Loyalty, Authority, and Sanctity when judging actions to be right or wrong. We then conducted a mediation analysis in SAS using Hayes’ (2022) Process v4.1 model 4, with 5000 bootstrapped iterations. As Fig. 3 shows, more liberal participants viewed emotion as more functional. More liberal participants were also more progressive – they showed greater relative endorsement of individualizing than socially binding values. In turn, the more progressive participants were, the more they viewed emotion as functional. When progressivism was included in the model, the link between liberal partisanship and viewing emotion as functional decreased significantly, as indicated

by the confidence interval for the indirect effect which did not include zero; Indirect effect=0.16,  $p < .001$ , 95% CI [0.12, 0.20]. These findings indicate that the link between liberalism and viewing emotion as functional was explained by liberal participants’ greater endorsement of individualizing than socially binding values.

**Political Partisanship and Emotional Experience.**

Finally, we explored whether participants’ beliefs about emotion explained the association between partisanship and participants’ emotional response to Biden’s victory. First, we conducted separate partial correlations between partisanship and participants’ feelings of happiness, anger, and fear. These correlations were adjusted for participants’ appraisals of how important the election outcome was, and



**Fig. 3** In study 3, the link between liberal partisanship and viewing emotion as functional was mediated by progressivism: greater endorsement of “individualizing” than “socially binding” values  
 Note: Unstandardized coefficients and standard errors are presented. Values in parentheses represent the total effect. Higher values for polit-

ical partisanship represent being more strongly liberal. Progressivism refers to the extent to which participants endorsed individualizing (Care, Fairness) versus socially binding (Loyalty, Authority, Sanctity) values on the Moral Foundations Questionnaire (Graham et al., 2011). \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

how much they agreed that Biden’s election was good for the country. After adjusting for appraised importance and valence, partisanship was not a significant predictor of how happy participants felt about Biden’s victory,  $r(462) = 0.09$ ,  $p = .054$ . However, the more conservative participants were, the more angry,  $r(462) = -0.17$ ,  $p < .001$ , and scared,  $r(462) = -0.11$ ,  $p = .02$ , they felt about Biden’s victory. Next we examined whether participants’ beliefs about emotion could explain these associations. Partial correlations, adjusting for appraised importance and valence, showed that participants’ beliefs about emotion did not predict how happy, angry, or scared they felt about Biden’s victory ( $ps > 0.10$ ). Thus, beliefs about the functionality of emotion could not account for the associations found between partisanship and emotional experience.

**Discussion.** Replicating the results of Studies 1 and 2, in Study 3, the more liberal participants were, the more they viewed emotion as functional. Moreover, the link between liberalism and viewing emotion as functional was mediated by liberals’ greater endorsement of individualizing than socially binding moral values. Participants who reported greater well-being, and women, also viewed emotion as more functional. However, more liberal participants reported less well-being, so greater well-being did not explain the link between liberal partisanship and viewing emotion as more functional. With respect to emotional experience, more conservative participants felt more anger and fear about Biden’s victory, even after accounting for their appraisals of the importance of the election and how good a president they thought Biden would be. However, participants’ beliefs about the functionality of emotion were not related to their feelings about the election outcome after

accounting for their appraisals, and thus could not account for the association between partisanship and emotional experience.

## General discussion

As the gap between liberals and conservatives widens to a chasm, and each group accuses the other of being either heartless or bleeding hearts, it becomes critically important to understand partisan perspectives on emotion. This investigation examined the relation between people’s political orientation and their beliefs about the functionality of emotion. The results across three studies were strikingly similar. The more liberal participants were, the more they viewed emotion as functional despite also reporting less well-being. In Study 3, the link between liberal partisanship and viewing emotion as functional was mediated by liberals’ greater endorsement of “individualizing” than “socially binding” moral values. These findings suggest that emotion is viewed as more functional by those who prioritize the needs of individuals, and as less functional by those who prioritize the cohesion of social groups.

## Liberals value emotion more than conservatives

Powerful emotion, and appeals for greater rationality, are prevalent on both sides of the political continuum (Finkel et al., 2020; Frimer et al., 2019). Our findings suggest though that liberals view emotion as a feature of rationality while conservatives view it as a bug. Across three studies, liberals viewed emotion as more functional than conservatives

– that is, as a healthy source of information about the self that provides direction in life rather than as a weakness and a waste of time. This link between liberalism and viewing emotion as functional remained after taking into account participants' gender (in all studies) and religiosity (assessed in Studies 1 and 2). In Study 1, participants also reported the intensity with which they typically experience emotion and how they regulate emotion. The more liberal participants were, the more they reported experiencing intense emotion and the less they reported suppressing the expression of emotion. Further, viewing emotion as more functional mediated the association between liberal partisanship and reports of experiencing more intense emotion and engaging in less suppression. Thus, beliefs about the functionality of emotion may help to explain why people who are more liberal value emotional expressiveness more (Matsumoto et al., 2008), whereas people who endorse conservative policies are more motivated to avoid emotion (Leone & Chirumbolo, 2008).

### Social values explained the Link between partisanship and Lay beliefs about emotion

In Study 3, we investigated whether participants' social values explained the association between liberal partisanship and valuing emotion. Emotions provide information and guide action in a manner that is often functional for attaining the goals of the individual (Keltner & Gross, 1999; Scherer, 2019). However, relying on personal feelings to guide thoughts and plans may disrupt the harmonious functioning of social groups which include individuals with disparate goals (Mooijman et al., 2018). Thus, we expected participants who were primarily concerned with the needs of individuals to view emotion as more functional than those who were more attuned to the needs of social groups. We tested this by examining participants' responses to the Moral Foundations Questionnaire (Graham et al., 2011).

Consistent with prior research, when judging actions as right or wrong, the more liberal participants were, the higher they scored on progressivism (Graham et al., 2009, 2011). That is, more liberal participants prioritized the "individualizing" moral foundations of caring and fairness, which address the needs of individuals, to a greater extent than the "binding" moral foundations of loyalty, authority, and sanctity, which help to maintain the cohesion of social groups. As expected, the link between liberalism and viewing emotion as functional was mediated by liberals' greater endorsement of individualizing than binding social values. Thus, prioritizing the needs of individuals more than the cohesion of social groups helped explain the association between liberal partisanship and viewing emotion as more functional.

### Openness to experience and well-being

We also assessed whether participants' openness to experience (Study 1) or well-being (all three studies) could account for the link between liberal partisanship and viewing emotion as more functional. In Study 1, participants who were more open to experience viewed emotion as more functional. However, in contrast to past research (e.g., Desimoni & Leone, 2014; Sibley et al., 2012), openness to experience was not associated with political partisanship in our sample. Thus, this personality trait did not explain the association between partisanship and beliefs about emotion. Study 1 included relatively few conservative participants, so we interpret this finding with caution. Future research sampling a broader range of political partisanship should examine whether conservatives' preference for stability and certainty over novelty and ambiguity contributes their view of emotion as less functional.

With respect to well-being, past research shows that feeling threatened and anxious can lead people to endorse more conservative views (e.g., Jost et al., 2003; Oxley et al., 2008). We found that participants who reported less well-being viewed emotion as less functional (Karnaze & Levine, 2018, 2020; Luong et al., 2016). But the link found between conservatism and viewing emotion as less functional was not explained by poorer well-being. In all three studies, more conservative participants viewed emotion as less functional despite reporting greater well-being. In summary, participants' social values, but not their openness to experience or well-being, helped explain the association between liberal partisanship and viewing emotion as more functional.

### Emotional responses to specific events

Finally, we explored whether participants' beliefs about the functionality of emotion explained associations between partisanship and emotional responses to specific events. In Study 2, we assessed participants' emotional responses to a personal experience of success or failure – receiving a favorable or unfavorable grade on an exam. After adjusting for the appraised importance of their grade and the specific letter grade received, participants' feelings about their grades were not related to political partisanship. Irrespective of partisanship, those who viewed emotion as more functional felt happier about getting the grade they expected or higher. Emotion beliefs were not related to the unhappiness participants felt about receiving a grade that was lower than expected. In Study 3, we assessed participants' emotional responses to a political experience of success or failure – Biden's victory in the 2020 U.S. presidential election. After adjusting for how important the election outcome was for

participants, and how much they agreed that Biden's election was good for the country, partisanship did not predict how happy participants felt about Biden's victory, but more conservative participants reported more anger and fear. Participants' beliefs about the functionality of emotion were not related to the intensity of happiness, anger, or fear they reported.

In summary, our findings with respect to partisan differences in emotional experience were mixed. On one hand, as noted above, viewing emotion as functional explained more liberal participants' reports of generally experiencing more intense emotion and engaging in less expressive suppression. On the other hand, when participants reported their actual emotional responses to specific events, we found few associations between emotional experience and partisanship after accounting for their appraisals of those events. The one partisan association found – between conservatism and greater anger and fear about Biden's victory – was not related to beliefs about the functionality of emotion. Overall, these findings were in keeping with past research showing that group differences in emotion values (e.g., differences in the emotions people ideally want to feel) are more pronounced and consistent than group differences in people's actual feelings in response to concrete day-to-day events (Tsai et al., 2006).

### Limitations and directions for Future Research

This investigation extended the emerging literature on lay beliefs about emotion to address an increasingly contentious and defining feature of people's identity – political partisanship. Our findings suggest that prioritizing the needs of individuals over those of social institutions contributes to the association between liberal partisanship and the belief that emotions are functional. A limitation of this investigation, however, is that the causal direction of the relationship between partisanship and beliefs about emotion cannot be determined from correlational data. Future research could assess if experimentally manipulating whether people prioritize the needs of individuals over groups increases the value they place on the directive and expressive functions of emotion.

A second limitation is that factors in addition to social values may contribute to partisan differences in valuing emotion. For example, children's early experiences shape both their political orientation and their attitudes about emotion. Children tend to adopt their parents' political ideology (Boshier & Thom, 1973) and, when it comes to responding to children's emotions, the parenting philosophies and practices of liberals and conservatives differ. Liberal parents encourage children to identify and communicate emotions rather than suppress them (Friedlmeier et al., 2011). What

liberals consider to be sensitive and responsive emotion coaching, conservatives consider irresponsibly indulgent (Schreiber et al., 2013). Future research should explore how these parenting approaches shape liberals' and conservatives' differing beliefs about the value of emotion.

A third limitation is that, Studies 2 and 3 used the most common unidimensional measure of U.S. political partisanship which ranges from strongly conservative to strongly liberal. A recent meta-analysis showed that the association between moral progressivism (that is, individualist vs. binding values) and political partisanship is stronger for social than economic political orientation, varies modestly across countries with different political histories, and even varies across U.S. demographic and political groups (Kivikangas et al., 2021). For example, when libertarians make more decisions, they rely less on emotion, less on all five moral foundations, and more on considerations of individual freedom, than both liberals and conservatives (Iyer et al., 2012). Thus, extending the research beyond a unidimensional measure of partisanship, and to demographic groups from non-university samples, may yield further insights about the generalizability of the findings and the relations among political orientation, social values, and beliefs about the functionality of emotion.

Finally, participants in our studies may have interpreted questions about the functionality of emotion as referring to individuals' emotional responses to events that impact their personal goals. Future research should examine whether conservatives value emotions as much or more than liberals when emotions are experienced and expressed on behalf of their social groups and institutions. For example, compared to liberals, conservatives may place greater value on feelings of pride toward family, community, and country, and anger toward perceived threats to these institutions (Porat et al., 2016). Compared to both liberals and conservatives, libertarians may value pride in individual achievement and anger about infringements on individual autonomy (Iyer et al., 2012).

### Conclusion

People's beliefs about the functionality of emotion may inform their judgments about the worth of their own feelings as well as the worth of the feelings of others (Tsai et al., 2006). The extent to which people value emotion may also influence their support for policies motivated by empathy (Pliskin et al., 2014) and their use or avoidance of emotional language when trying to persuade others (Sylwester & Purver, 2015). Thus, a useful start toward bridging the partisan gap is to identify and explain both the commonalities and differences in people's emotional responses and beliefs.

With respect to commonalities, people's actual emotional responses to a specific personal experience of success or failure were not related to political partisanship. Yet, across three studies, emotion was viewed as more valuable by people who identified more strongly as liberal. Prioritizing the needs of individuals over the cohesion of social groups helped to explain this link between liberalism and valuing emotion. The results of this investigation thus provide an important step toward a more comprehensive understanding of partisanship and emotion.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

## References

- Anderson, C., Kraus, M. W., Galinsky, A. D., & Keltner, D. (2012). The local-ladder effect: Social status and subjective well-being. *Psychological Science*, 23(7), 764–771.
- Andresen, E. M., Malmgren, J. A., Carter, W. B., & Patrick, D. L. (1994). Screening for depression in well older adults: Evaluation of a short form of the CES-D. *American Journal of Preventive Medicine*, 10(2), 77–84.
- Bakker, B. N., Schumacher, G., Gothreau, C., & Arceneaux, K. (2020). Conservatives and liberals have similar physiological responses to threats. *Nature Human Behaviour*, 4(6), 613–621.
- Boshier, R., & Thom, E. (1973). Do conservative parents nurture conservative children? *Social Behavior and Personality: An International Journal*, 1(2), 108–110.
- Brooks, A. W. (2014). Get excited: Reappraising pre-performance anxiety as excitement. *Journal of Experimental Psychology: General*, 143(3), 1144–1158.
- Carlson, S. J., Levine, L. J., Lench, H. C., Flynn, E., Carpenter, Z. K., Perez, K. A., & Bench, S. W. (2021). You shall go forth with joy: Religion and aspirational judgments about emotion. *Psychology of Religion and Spirituality*. <https://doi.org/10.1037/rel0000327>.
- Crum, A. J., Akinola, M., Martin, A., & Fath, S. (2017). The role of stress mindset in shaping cognitive, emotional, and physiological responses to challenging and threatening stress. *Anxiety Stress & Coping*, 30(4), 379–395.
- Desimoni, M., & Leone, L. (2014). Openness to experience, honesty–humility and ideological attitudes: A fine-grained analysis. *Personality and Individual Differences*, 59, 116–119.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542–575.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75.
- Elad-Strenger, J., Proch, J., & Kessler, T. (2020). Is disgust a “conservative” emotion? *Personality and Social Psychology Bulletin*, 46(6), 896–912.
- Eliot, T. S. (1944). *Four quartets*. London, UK: Faber and Faber.
- Farwell, L., & Weiner, B. (2000). Bleeding hearts and the heartless: Popular perceptions of liberal and conservative ideologies. *Personality and Social Psychology Bulletin*, 26(7), 845–852.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G\*Power 3.1. *Behavior Research Methods*, 41(4), 1149–1160.
- Finkel, E. J., Bail, C. A., Cikara, M., Ditto, P. H., Iyengar, S., Klar, S., & Druckman, J. N. (2020). Political sectarianism in America. *Science*, 370(6516), 533–536.
- Frimer, J. A., Brandt, M. J., Melton, Z., & Motyl, M. (2019). Extremists on the left and right use angry, negative language. *Personality and Social Psychology Bulletin*, 45(8), 1216–1231.
- Ford, B. Q., & Gross, J. J. (2019). Why beliefs about emotion matter: An emotion-regulation perspective. *Current Directions in Psychological Science*, 28(1), 74–81.
- Friedlmeier, W., Corapci, F., & Cole, P. M. (2011). Emotion socialization in cross-cultural perspective. *Social and Personality Psychology Compass*, 5(7), 410–427.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 96(5), 1029–1046.
- Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, 101(2), 366–385.
- Gross, J. J., & John, O. P. (1995). Facets of emotional expressivity: Three self-report factors and their correlates. *Personality and Individual Differences*, 19(4), 555–568.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, 20(1), 98–116.
- Hasson, Y., Tamir, M., Brahms, K. S., Cohrs, J. C., & Halperin, E. (2018). Are liberals and conservatives equally motivated to feel empathy toward others? *Personality and Social Psychology Bulletin*, 44(10), 1449–1459.
- Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (3rd edition)*. New York: The Guilford Press.
- Iyer, R., Koleva, S., Graham, J., Ditto, P., & Haidt, J. (2012). Understanding libertarian morality: The psychological dispositions of self-identified libertarians. *PLoS ONE*, 7(8), e42366.
- Janoff-Bulman, R. (2009). To provide or protect: Motivational bases of political liberalism and conservatism. *Psychological Inquiry*, 20(2–3), 120–128.
- Janoff-Bulman, R., & Carnes, N. C. (2013). Surveying the moral landscape: Moral motives and group-based moralities. *Personality and Social Psychology Review*, 17(3), 219–236.
- Joel, S., Burton, C. M., & Plaks, J. E. (2014). Conservatives anticipate and experience stronger emotional reactions to negative outcomes. *Journal of Personality*, 82(1), 32–43.
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the Integrative Big-Five Trait Taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: theory and research* (pp. 114–158). New York, NY: Guilford Press.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129(3), 339–375.



- Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, 20(1), 3–24.
- Karnaze, M. M., & Levine, L. J. (2018). Data versus spock: Lay theories about whether emotion helps or hinders. *Cognition and Emotion*, 32(3), 549–565. <https://doi.org/10.1080/02699931.2017.1326374>.
- Karnaze, M. M., & Levine, L. J. (2020). Lay theories about whether emotion helps or hinders: Assessment and effects on emotional acceptance and recovery from distress. *Frontiers in Psychology*, 11, 183. <https://doi.org/10.3389/fpsyg.2020.00183>.
- Kaufmann, K. M. (2004). The partisan paradox: Religious commitment and the gender gap in party identification. *Public Opinion Quarterly*, 68(4), 491–511.
- Keltner, D., & Gross, J. J. (1999). Functional accounts of emotions. *Cognition and Emotion*, 13, 467–480.
- Kisley, M. A., Caudle, C. S., & Harvey, A. M. (2019). Affect intolerance is associated with insecure attachment and reduced self-esteem in adults. *Archives of Psychology*, 3(8), 1–21.
- Kivikangas, J. M., Fernández-Castilla, B., Järvelä, S., Ravaja, N., & Lönnqvist, J. E. (2021). Moral foundations and political orientation: Systematic review and meta-analysis. *Psychological Bulletin*, 147(1), 55–94.
- Lench, H. C., Levine, L. J., Dang, V., Kaiser, K. A., Carpenter, Z. K., Carlson, S. J., Flynn, S. J., Perez, K. A., & Winckler, B. (2021). Optimistic expectations have benefits for effort and emotion with little cost. *Emotion*, 21(6), 1213–1223.
- Lench, H. C., Levine, L. J., Perez, K., Carpenter, Z. K., Carlson, S. J., Bench, S. W., & Wan, Y. (2019). When and why people misestimate future feelings: Identifying strengths and weaknesses in affective forecasting. *Journal of Personality and Social Psychology*, 116(5), 724–742.
- Leone, L., & Chirumbolo, A. (2008). Conservatism as motivated avoidance of affect: Need for affect scales predict conservatism measures. *Journal of Research in Personality*, 42(3), 755–762.
- Luong, G., Wrzus, C., Wagner, G. G., & Riediger, M. (2016). When bad moods may not be so bad: Valuing negative affect is associated with weakened affect–health links. *Emotion*, 16(3), 387–401.
- Lutz, C. (1986). Emotion, thought, and estrangement: Emotion as a cultural category. *Cultural Anthropology*, 1(3), 287–309.
- Matsumoto, D., Yoo, S. H., & Fontaine, J. (2008). Mapping expressive differences around the world: The relationship between emotional display rules and individualism versus collectivism. *Journal of Cross-Cultural Psychology*, 39(1), 55–74.
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality*, 60(2), 175–215.
- Mooijman, M., Meindl, P., Oyserman, D., Monterosso, J., Dehghani, M., Doris, J. M., & Graham, J. (2018). Resisting temptation for the good of the group: Binding moral values and the moralization of self-control. *Journal of Personality and Social Psychology*, 115(3), 585–599.
- Moors, A., Ellsworth, P. C., Scherer, K. R., & Frijda, N. H. (2013). Appraisal theories of emotion: State of the art and future development. *Emotion Review*, 5(2), 119–124.
- Napier, J. L., & Jost, J. T. (2008). Why are conservatives happier than liberals? *Psychological Science*, 19(6), 565–572.
- Newman, D. B., Schwarz, N., Graham, J., & Stone, A. A. (2019). Conservatives report greater meaning in life than liberals. *Social Psychological and Personality Science*, 10(4), 494–503.
- Osmundsen, M., Hendry, D. J., Laustsen, L., Smith, K. B., & Petersen, M. B. (2022). The psychophysiology of political ideology: Replications, reanalyses, and recommendations. *The Journal of Politics*, 84(1), 50–66.
- Oxley, D. R., Smith, K. B., Alford, J. R., Hibbing, M. V., Miller, J. L., Scalora, M., & Hibbing, J. R. (2008). Political attitudes vary with physiological traits. *Science*, 321(5896), 1667–1670.
- Parrott, W. G. (1995). The heart and the head. *Everyday conceptions of emotion* (pp. 73–84). Dordrecht: Springer.
- Peterson, J. C., Jacobs, C., Hibbing, J., & Smith, K. (2018). In your face: Emotional expressivity as a predictor of ideology. *Politics and the Life Sciences*, 37(1), 53–67.
- Pliskin, R., Bar-Tal, D., Sheppes, G., & Halperin, E. (2014). Are leftists more emotion-driven than rightists? The interactive influence of ideology and emotions on support for policies. *Personality and Social Psychology Bulletin*, 40(12), 1681–1697.
- Pliskin, R., Ruhman, A., & Halperin, E. (2020). Proposing a multidimensional, context-sensitive approach to the study of ideological (a)symmetry in emotion. *Current Opinion in Behavioral Sciences*, 34, 75–80.
- Porat, R., Halperin, E., & Tamir, M. (2016). What we want is what we get: Group-based emotional preferences and conflict resolution. *Journal of Personality and Social Psychology*, 110(2), 167–190.
- Scheffer, J. A., Cameron, C. D., McKee, S., Hadjiandreou, E., & Scherer, A. M. (2022). Stereotypes about compassion across the political spectrum. *Emotion*, 22(3), 466–478.
- Scherer, K. R. (2019). Studying appraisal-driven emotion processes: Taking stock and moving to the future. *Cognition and Emotion*, 33(1), 31–40.
- Schlenker, B. R., Chambers, J. R., & Le, B. M. (2012). Conservatives are happier than liberals, but why? Political ideology, personality, and life satisfaction. *Journal of Research in Personality*, 46(2), 127–146.
- Schreiber, D., Fonzo, G., Simmons, A. N., Dawes, C. T., Flagan, T., Fowler, J. H., & Paulus, M. P. (2013). Red brain, blue brain: Evaluative processes differ in Democrats and Republicans. *PLoS ONE*, 8(2), e52970.
- Sibley, C. G., Osborne, D., & Duckitt, J. (2012). Personality and political orientation: Meta-analysis and test of a threat-constraint model. *Journal of Research in Personality*, 46(6), 664–677.
- Spielberger, C. D. (1983). *State-trait anxiety inventory for adults*. Palo Alto, CA: Mind Garden.
- Sylwester, K., & Purver, M. (2015). Twitter language use reflects psychological differences between Democrats and Republicans. *PLoS ONE*, 10(9), e0137422.
- Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, 90(2), 288–307.
- Wojcik, S. P., Hovasapian, A., Graham, J., Motyl, M., & Ditto, P. H. (2015). Conservatives report, but liberals display, greater happiness. *Science*, 347(6227), 1243–1246.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.