Low-Effort Thought Promotes Political Conservatism

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Abstract

The authors test the hypothesis that low-effort thought promotes political conservatism. In Study 1, alcohol intoxication was measured among bar patrons; as blood alcohol level increased, so did political conservatism (controlling for sex, education, and political identification). In Study 2, participants under cognitive load reported more conservative attitudes than their no-load counterparts. In Study 3, time pressure increased participants' endorsement of conservative terms. In Study 4, participants considering political terms in a cursory manner endorsed conservative terms more than those asked to cogitate; an indicator of effortful thought (recognition memory) partially mediated the relationship between processing effort and conservatism. Together these data suggest that political conservatism may be a process consequence of low-effort thought; when effortful, deliberate thought is disengaged, endorsement of conservative ideology increases.

Keywords

political attitudes, conservatism, conservative ideology, low-effort thought

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Conservative political ideology in Western democracies may be identified by several components, including an emphasis on personal responsibility, acceptance of hierarchy, and a preference for the status quo. These ideological components map closely onto nonideological psychological processes, which support attitudes consistent with political conservatism. We describe how attitudes and behaviors consistent with these components increase as a consequence of thinking that requires little time, effort, or awareness. From this starting point, we develop the argument that political conservatism is promoted when people rely on low-effort thinking. When effortful, deliberate responding is disrupted or disengaged, thought processes become quick and efficient; these conditions promote conservative ideology.

Perceptions of Personal Responsibility

People prefer "person" explanations for the causes of behavior (Heider, 1958), drawing dispositional inferences about those whose behavior they have observed (Gilbert & Malone, 1995; Ross, 1977). This resembles conservative ideology's emphasis on self-reliance and personal responsibility (Skitka & Tetlock, 1992, 1993). Political conservatism has been linked to Protestant Work Ethic values (Feather, 1984), and conservatives are more likely than liberals to make dispositional attributions in numerous domains, including obesity (Crandall, 1994), misfortune (Williams, 1984), poverty (Zucker & Weiner, 1993), unemployment (Feather, 1985), and intelligence (Skitka, Mullen, Griffin, Hutchinson, & Chamberlin, 2002).

These person explanations occur quickly and easily. Perceivers automatically code behavior in terms of traits (Uleman, Newman, & Moskowitz, 1996; Winter & Uleman, 1984); these traits form the basis of dispositional explanations for behavior that occur with little effort. For example, perceivers are more likely to make internal attributions for behavior when their mental resources are taxed (Gilbert, Pelham, & Krull, 1988); without sufficient cognitive resources, people emphasize dispositional causes. In brief, endorsement of personal responsibility represents one component of political conservatism that occurs easily and efficiently.

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Acceptance of Hierarchy

People accept and maintain status differences between people and groups (Berger, Cohen, & Zelditch, 1972; Jost & Banaji, 1994; Ridgeway, 1991; Sidanius & Pratto, 1999). This acceptance of hierarchy is also a core component of political conservatism (Bobbio, 1996; Jost, Glaser, Kruglanski, & Sulloway, 2003). Research links acceptance of hierarchy to political conservatism empirically (Pratto, Sidanius, Stallworth, & Malle, 1994), and opposition to equality is related to endorsement of conservative social policies (Jost & Thompson, 2000).

Acceptance of hierarchy is also simple and efficient. Status distinctions are discerned quickly (Moors & De Houwer, 2005) and easily (e.g., when only "thin slices" of information are available; see Ambady, Bernieri, & Richeson, 2000; Costanzo & Archer, 1989). Members of low status groups accept status differences implicitly (Jost, Pelham, & Carvallo, 2002; Rudman, Feinberg, & Fairchild, 2002), and people maintain interpersonal hierarchical differentiation by complementing the dominant or submissive posture of an interaction partner (by being more submissive or dominant, respectively) without awareness of doing so (Tiedens & Fragale, 2003). Zitek and Tiedens (2011) found that hierarchy is perceived, remembered, and learned more easily (and liked more) than nonhierarchical arrangements. Together these data indicate that acceptance of hierarchy—a second component of political conservatism—proceeds in the absence of effortful information processing.

Preference for the Status Quo

Preference for the status quo represents a third component of political conservatism (Bobbio, 1996; Burke, 1790/1999; Jost et al., 2003; McClosky & Zaller, 1984; Stone, 1994). A host of psychological mechanisms advantage the processing and endorsement of the status quo. What comes first impacts judgment more than what comes later (Asch, 1946; Jones & Goethals, 1972), established decisions tend to be repeated in the future (Samuelson & Zeckhauser, 1988), and the familiar is experienced more favorably (Festinger, Schachter, & Back, 1950; Zajonc, 1968). Across several domains, perceivers simply assume that existing and long-standing states are good and desirable (Eidelman, Crandall, & Pattershall, 2009; Eidelman, Pattershall, & Crandall, 2010).

These mechanisms operate quickly and efficiently. Primacy effects are enhanced under time pressure (Kruglanski & Freund, 1983), and the effect of exposure on evaluation is strongest when stimuli are processed outside of awareness (Bornstein, 1989; Bornstein & D'Agostino, 1992). Status quo bias increases as a function of the number of alternatives, implying a simple and efficient strategy (Kempf & Ruenzi, 2006). Participants' preference for existing states is unaffected by having their mental resources taxed (Eidelman et al., 2009), and they seem unaware that time in existence increases liking (Eidelman et al., 2010). These findings indicate that status quo endorsement—another component of political conservatism—requires little time, effort, and awareness (Eidelman & Crandall, 2009).

Low-Effort Thought and Political Conservatism

Emphasis on personal responsibility, acceptance of hierarchy, and preference for the status quo are linked to fast and efficient ways of processing information; each may be quickly and easily endorsed, often outside of awareness and with little or no effort. Because these and other components of political conservatism (e.g., self-interest; Moore & Loewenstein, 2004; van den Bos, Peters, Bobocel, & Ybema, 2006) are closely linked to automatic, default processes, we predict that restricting people to simple and basic modes of thought will lead to the acceptance of conservative attitudes and values. Taxing, limiting, or otherwise disengaging effortful, deliberative thought should increase endorsement of conservative ideology.

Alternatively, low-effort thought might promote political conservatism because its concepts are easier to process, and processing fluency increases attitude endorsement (Alter & Oppenheimer, 2009). Another form of this argument is that those who espouse politically conservative attitudes and opinions handle ideological information in a more cursory manner (e.g., Tetlock, 1983). These ideas have support, but are distinct from our claim. We argue that low-effort information processing promotes the ideological *content* of political conservatism. When time and effort are in short supply, emission of responses consistent with conservative ideology should increase.

The motivated social cognition approach of Jost and his colleagues also underscores the content of conservative ideology (Jost et al., 2003; Jost et al., 2007). These researchers argue that the endorsement of political conservatism stems from needs to manage threat and uncertainty; the stability, predictability, and certainty attached to conservative political concepts are thought to provide an additional means through which these needs might be secured (Chirumbolo, Areni, & Sensales, 2004; Jost et al., 2003). The motivated social cognition account emphasizes how conservatism is well suited to satisfy epistemic and security needs, but we underscore how conservative ideology will arise as a *process* consequence of low-effort thought. Low-effort processing may be used independent of needs for stability and certainty; our account is that low-effort thought *alone* will promote political conservatism.

We tested these ideas in four studies. Study 1 was conducted in vivo at a local bar, with alcohol intoxication serving as a hindrance to effortful thinking; political attitudes of bar patrons were correlated with a measure of their blood alcohol content (BAC). In Study 2, we measured participants' political attitudes under normal working conditions or

cognitive load. In Study 3, we manipulated time pressure and measured the endorsement of terms related to liberal and conservative beliefs. We expected alcohol, load, and time pressure to interfere with effortful information processing, leaving participants to lean more heavily on thinking that was easy and efficient. In Study 4, we manipulated effortful processing directly by asking participants to consider political terms in a deliberate or cursory manner. In all studies, we expected low-effort thought to promote conservative ideology.

Study 1

In Study 1, we took advantage of alcohol consumption as a common and powerful means of disrupting deliberative thought. Alcohol restricts cognitive capacity and impairs controlled responding (e.g., Abroms, Fillmore, & Marczinski, 2003; Easdon & Vogel-Sprott, 2000) while leaving automatic thinking largely intact (Bartholow, Dickter, & Sestir, 2006; Fillmore, Vogel-Sprott, & Gavrilescu, 1999; Herzog, 1999). If low-effort thought promotes political conservatism, the inability to process information thoroughly and override simple responding associated with increasing levels of alcohol intoxication should lead to the expression of more conservative attitudes.

Method

Participants and procedure. Eighty-five community members (29% female) who were patrons of a local New England bar participated without remuneration. Mixed-sex groups of 3 to 4 experimenters obtained permission to stand outside the bar's busiest exit and approach potential participants as they left. Participants were asked to complete a short survey about social attitudes in exchange for learning their BAC. Before collecting data, experimenters verified that each participant was at least 21 years of age and not driving. Those who met these criteria completed a short survey and then blew into a breathalyzer. Participants were apprised of their BAC and thanked for their assistance. They were given contact information so they could rescind participation at a later date if they saw fit (none did).

Measurement of political conservatism. Participants completed a short survey that contained 10 items drawn from Eysenck (1951, 1975) that tapped various aspects of political conservatism (e.g., "Production and trade should be free of government interference" and "Ultimately, privately property should be abolished"). All items were answered on 9-point Likert-type scales (1 = *strongly disagree*; 9 = *strongly agree*) and combined to form an index of political conservatism ($\alpha = .62$) with higher numbers, reverse-scored where necessary, indicating more conservative political attitudes.

Demographics. Participants also indicated how much education they had (1 = *some high school*; 2 = *high school diploma*; 3 = *some college*; 4 = *college degree*; 5 = *masters degree*; 6 = *doctorate or equivalent*) and their self-identification as liberal/conservative (1 = *very liberal*; 5 = *very conservative*). An experimenter coded participants' sex as either male or female.

Measurement of BAC. BAC was assessed with an Alco-Sensor FST breathalyzer (Intoximeters Inc., St. Louis, MO). Participants were asked to blow a steady stream of air into the breathalyzer until told to stop (when the LCD of the breathalyzer displayed a reading, typically 2 to 3 s from when the participant started to blow). Breathalyzers were calibrated prior to data collection and fresh mouthpieces were used for each participant.

Results

Participants averaged some college education ($M = 3.77$, $SD = 0.73$), and they can be described ideologically as centrists ($M = 2.45$, $SD = 1.05$). Participants' mean BAC level was .058, with a range of .00 to .18, and their mean endorsement of political conservatism was 4.96, with a range of 2.2 to 7.8. Self-identification as liberal/conservative was unrelated to BAC, $r = -.14$, $p > .18$.[1]

To determine whether BAC was related to political conservatism, we regressed the 10-item conservatism index on participants' self-identification as liberal/conservative, sex (0 = *male*; 1 = *female*), level of education, and BAC. Consistent with predictions, BAC was a significant predictor of political conservatism, $\beta = .21$, $t(82) = 2.40$, $p < .02$, over and above ideological self-identification, sex, and education. Not surprisingly, self-identification was also a significant predictor of participants' political conservatism, $\beta = .68$, $t(82) = 7.82$, $p < .0001$, but neither sex ($\beta = .01$) nor level of education ($\beta = .06$) predicted political conservatism in the model (both ps > .45).

We performed an additional regression analysis that included a squared BAC term and the interaction between ideological self-identification and BAC as additional predictors in the model to test for the possibility that the effect of BAC on political conservatism was (respectively) curvilinear or dependent on participants' self-identification as liberal or conservative (these terms were computed after relevant variables were centered to control for multicollinearity; Cohen, Cohen, West, & Aiken, 2003). Neither of these predictors were related to political conservatism (both ps > .94), whereas the effect of BAC on political conservatism remained significant ($p < .05$).

Discussion

Bar patrons reported more conservative attitudes as their level of alcohol intoxication increased. Because alcohol limits cognitive capacity and disrupts controlled responding, while leaving automatic thinking largely intact (e.g., Bartholow et al., 2006), these data are consistent with our claim that low-effort thinking promotes political conservatism.

The interaction between BAC and self-identification as liberal/conservative was not significant, indicating that the relationship between BAC and conservatism held for those who leaned to the political left and the political right. As BAC increased and capacity for deliberative thought decreased, liberal and conservative participants shifted toward conservatism.

Our data are correlational, and the possibility of reverse causality remains—political conservatives may drink more alcohol. Although BAC was correlated with endorsement of politically conservative attitudes, it was unrelated to self-identification as liberal/conservative, and BAC predicted conservative attitudes when self-identification was statistically controlled. This suggests that a predisposition to ideological conservatism does not account for our results. Indeed, there is reason to expect that willingness to imbibe is, in general, negatively correlated with political conservatism (e.g., Margulies, Kessler, & Kandel, 1977).[2]

Study 2

In Study 2, we manipulated reliance on low-effort thought. Participants indicated their political attitudes by responding to several statements; half did so while their cognitive resources were depleted by working on a second task concurrently (e.g., Gilbert et al., 1988; Wegner & Erber, 1992). With their attention divided, participants with depleted resources should be less able to engage in deliberative thinking when reporting their political attitudes. If the output of low-effort thought is consistent with conservative ideology, participants with depleted resources should indicate more conservative attitudes than those with ample cognitive resources.

We also measured political liberalism in addition to political conservatism. Liberal political beliefs may be independent of conservative beliefs (e.g., Kerlinger, 1967, 1984), particularly among nonexperts (Sidanius & Duffy, 1988) and those unmotivated to form opinions (Federico, 2007), and so our hypothesis is largely silent on the relationship between deliberate thought and liberalism. We made no firm predictions about the effect of load on liberalism other than to expect a pattern distinct from the effects of load on conservatism, which would indicate that load's effect is not due to acquiescence or other nuisance processes.

We also measured participants' mood to ensure that changes in political attitudes under cognitive load were not due to temporary changes in affect. To ensure that any effect of load was not due to differences in ease of processing or understanding, we asked an independent sample of participants to respond to the statements while we recorded response times, and another to rate each statement for its complexity. Statements were also compared for reading difficulty.

Method

Participants and design. Thirty-eight undergraduates from the University of Maine (89% female) enrolled in an introductory psychology course participated in exchange for extra credit. Participants were run in small groups but worked independently. Each session was randomly assigned to one level of a cognitive load manipulation.

Procedure. Participants provided informed consent and then were given 15 min to complete a packet about social perception. Before beginning, half of the sessions were given an additional set of instructions to manipulate cognitive load. After completing their packets, participants were debriefed, thanked, and dismissed.

Measure of political attitudes. Participants indicated their political attitudes using Kerlinger's (1984) Social Attitudes Statement Scale (SASS). The SASS treats liberalism and conservatism as distinct constructs. Thirteen items make up a liberalism subscale (e.g., "Large fortunes should be taxed fairly heavily over and above income taxes"; $\alpha = .69$), and 13 items make up a conservatism subscale (e.g., "A first consideration of any society is the protection of property rights"; $\alpha = .69$). All items were answered on 7-point Likert-type scales (1 = *strongly disagree*; 7 = *strongly agree*), with higher numbers indicating more of each construct. The subscales were uncorrelated, $r = .08$, $p > .61$.

Mood. Participants then completed the Brief Mood Introspection Scale (BMIS; Mayer & Gaschke, 1988). The BMIS asks participants to indicate how they are feeling (e.g., *active, sad, fed up*) at the moment and has separate subscales for valence and arousal. We also included two additional terms, *frustrated* and *annoyed*, to have a more nuanced measure of affect in response to our load manipulation. Responses ranged from 1 (*definitely do not feel*) to 4 (*definitely feel*).

Ease of processing and complexity. To measure ease of processing of the liberal and conservative statements, we asked an independent sample of 13 participants drawn from the same population to complete the SASS on a computer while we recorded response times. To measure the complexity of these statements, an independent sample of 19 participants drawn from the same population rated "the idea behind each statement" for its complexity. Responses were made on a 1 (*easy to understand*) to 9 (*difficult to understand*) scale. We also used Coh-Metrix software (McNamara, Louwerse, Cai, & Graesser, 2005) to rate the statements on four reading difficulty variables.

Manipulation of cognitive load. Participants in half of the groups were randomly assigned to work on a distraction task while filling out their questionnaires. *Load* participants were instructed to listen to a tape of tones varying in pitch and to count and record the number of tones that preceded each change (see Skitka et al., 2002). They were urged to be accurate and told that their responses would be checked for errors. *No Load* participants were not given these instructions, nor did they listen to tones while working on their questionnaires.

Results

Political attitudes. We computed *t* tests for the conservatism and liberalism subscales of the SASS. Consistent with

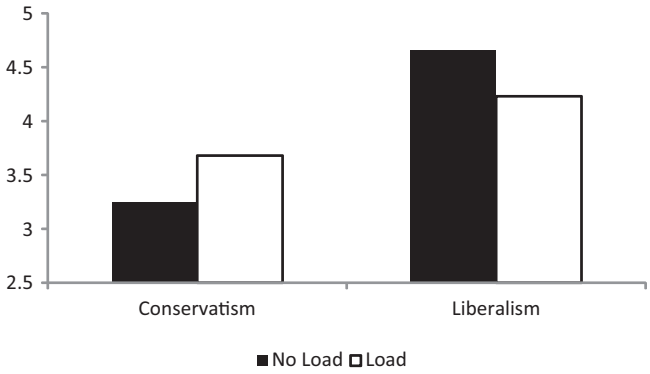

Figure 1. Endorsement of political conservatism and political liberalism as a function of cognitive load

predictions, *load* increased conservative attitudes ($M = 3.68$, $SD = 0.62$) compared with the *no load* condition ($M = 3.25$, $SD = 0.68$), $t(37) = 2.02$, $p = .05$, $\eta^2 = .10$ (see Figure 1). Load decreased liberal attitudes ($M = 4.23$, $SD = 0.62$) compared with the no load condition ($M = 4.66$, $SD = 0.56$), $t(37) = 2.17$, $p < .04$, $\eta^2 = .12$.

Mood. We also computed *t* tests to determine the effects of load on the valence and arousal subscales of the BMIS. Neither effect was significant, both ts < 1, ps > .38. Load also did not affect participants' frustration or annoyance, either separately or when combined together, all ps > .19.

Ease of processing and complexity. To ensure that conservative and liberal statements did not differ in how easy they were to process, response times to each were averaged and compared with a *t* test. These times did not differ, $t(12) = .30$, $p > .75$. We also computed a paired samples *t* test on participants' ratings of how easy statements were to understand; conservative and liberal statements did not differ, $t(18) = .34$, $p > .73$.

Using the Coh-Metrix analysis of complexity (Graesser, McNamara, Louwerse, & Cai, 2004), we compared liberal and conservative statements and found no differences in the number of words per statement or the number of syllables per words, and no differences in the Flesch Reading Ease Score or the Flesch–Kincaid Grade Level, all ps >.30.

Discussion

Participants under cognitive load reported more conservative attitudes than those not under cognitive load. Because cognitive load depletes available mental resources (Gilbert et al., 1988; Wegner & Erber, 1992), participants were left to draw more heavily on thinking that was easy and efficient. We maintain that this thinking promotes political conservatism. Cognitive load also produced a corresponding shift in liberal attitudes; when under load, participants' endorsement of political liberalism decreased.

Mood was not responsible for changes in participants' political attitudes. Neither the arousal or valence scales of the BMIS were affected by our manipulation of cognitive load nor were participants' self-reported frustration and annoyance. Similarly, the complexity and ease of processing of conservative and liberal statements did not differ. These are unlikely causes of the differential endorsement of conservatism and liberalism across load conditions.

Study 3

Time pressure also disrupts effortful thinking, forcing responses that are quick and efficient (e.g., Bargh & Thein, 1985; Strack, Erber, & Wicklund, 1982; Wegner & Erber, 1992). We predicted that these conditions would promote conservative ideology. We operationalized conservative ideology in Study 3 as the endorsement of conservative words and phrases.

Hansson, Keating, and Terry (1974) considered a similar hypothesis and gave participants either 2 min or unlimited time to respond to several ballot initiatives; time-pressed participants showed more support for ballot initiatives that could be considered politically conservative. We do not know whether low-effort thinking led to favoring political conservatism; the conservative initiatives may have been easier to understand and thus more appealing. Two minutes for reading, thinking about, and voting on several ballot initiatives might well have created arousal or negative mood, which could in turn lead to more conservative-consistent choices. We developed a study that provides a clearer test of time pressure's effect on political attitudes. We again measured political liberalism separately from political conservatism, allowing us to distinguish potential changes for each ideology separately. This distinction could not be discerned from the results reported by Hansson and his colleagues.

Method

Participants. Thirty-six undergraduates from the University of Maine (53% female) who were enrolled in introductory psychology courses participated in exchange for extra credit. Participants were run individually and randomly assigned to one level of a time pressure manipulation.

Procedure. Participants were taken to a small room with a computer and informed consent was obtained. Instructions and measures were presented on the monitor. Participants were oriented to a button box with which they were told to indicate their responses.

Participants read that the study concerned social issues and that soon they would respond to some words and phrases. After completing practice trials, participants endorsed 50 terms under high or low time pressure. They then responded to 18 mood items and provided demographic information. Completion of the study took approximately 15 min. When finished, participants were debriefed, thanked, and dismissed.

Time pressure manipulation. In the *high time pressure* condition, participants were instructed to respond to each term quickly without sacrificing accuracy. Terms appeared on the

screen for 550 ms, followed by a response scale that remained on the screen for 1,000 ms. Thus, participants had 1,550 ms to read and respond to each term. We chose this time frame based on Bargh and Thein (1985) and pretesting indicating that errors (nonresponses in the allotted time) were kept to a minimum. If no response was given within 1,550 ms, a message appeared on the screen asking the participant to respond more quickly.

In the *low time pressure* condition, participants were instructed to take as long as needed to respond. Terms appeared on the screen for 4,000 ms before participants could respond; then a response scale appeared and remained on the screen until participants indicated their response. Participants in both conditions completed 10 practice trials before the first block of terms to become acquainted with the forthcoming time requirement.

Measurement of political attitudes. Participants completed Kerlinger's (1967, 1984) Social Referent Scale (SRS). This scale is similar to the SASS, but instead of statements for items, it contains 25 terms that make up a conservatism subscale (e.g., *law and order, authority*, and *private property*) and 25 terms that make up a liberalism subscale (e.g., *labor unions, civil rights*, and *social change*). All responses were made on scales ranging from −3 (*strongly disagree*) to +3 (*strongly agree*). (One term, *government price controls*, was removed from the liberalism subscale because more than 15% of participants in the high time pressure condition were unable to respond in the allotted time, and responses to this items were negatively correlated with the remaining items.) The subscales were reliable (αs = .84 and .78 for conservatism and liberalism, respectively) and uncorrelated, $r = -.17$, $p > .31$.

Mood. After responding to these terms, participants reported their mood on the BMIS. Responses were made on the same −3 to +3 scale.

Ease of processing and complexity of terms. We recorded response times to terms as an indicator of ease of processing. We also asked an independent sample of 22 participants drawn from the same population to rate "the idea behind each term" for its complexity. Responses were made on a 1 (*easy to understand*) to 9 (*difficult to understand*) scale.

Results

Political attitudes. We computed *t* tests for the conservatism and liberalism subscales of the SRS. Consistent with predictions, time pressure increased endorsement of conservative terms ($M = 1.96$, $SD = 0.6$) compared with the low time pressure condition ($M = 1.34$, $SD = 0.52$), $t(34) = 3.27$, $p < .003$, $\eta^2 = .24$ (see Figure 2). Time pressure had no effect on the endorsement of liberal terms (Ms = 1.55 and 1.68, SDs = 0.85 and 0.49, in the high and low time pressure conditions, respectively), $t(34) = .55$, $p > .58$.

Mood. We also computed *t* tests on the valence and arousal subscales of the BMIS. Time pressure did not affect valence, $t(33) = 0.1$, $p > .91$, but it did affect arousal, $t(33) = 3.45$, $p < .002$; those under time pressure reported feeling more aroused ($M = .59$, $SD = 0.73$) than those not under time pressure ($M = -.11$, $SD = 0.45$). When the effects of time pressure on political attitudes were recomputed with arousal as a covariate, all effects were unchanged.

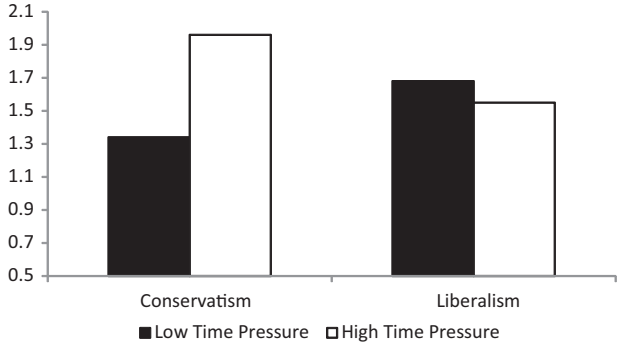

Figure 2. Endorsement of political conservatism and political liberalism as a function of time pressure

Ease of processing and complexity. To determine whether conservative terms were easier to process than liberal terms, response times to each were averaged and treated as a within-subjects factor in a two-way mixed model ANOVA with time pressure as the between-subjects factor. Only the effect of time pressure was significant, $F(1, 33) = 12.26$, $p < .002$. Participants responded more quickly to terms under high time pressure ($M = 401.19$ ms, $SD = 94.52$) than under low time pressure ($M = 1{,}328.88$ ms, $SD = 1{,}130.86$). Neither the main effect for type of term nor the interaction was significant, both ps > .47.

To ensure that time pressure did not increase endorsement of conservative terms because they were easier to understand than liberalism terms, we calculated a *t* test based on rated complexity; the two sets of terms did not differ, $t(21) = 1.03$, $p > .31$.

Discussion

When effortful thinking was disrupted by rapid presentation of words and phrases related to political conservatism, endorsement of these terms increased. Endorsement of terms related to political liberalism was not affected by time pressure. Time pressure forces reliance on information processing that is quick and efficient (e.g., Bargh & Thein, 1985; Strack et al., 1982; Wegner & Erber, 1992). Study 3 joins Studies 1 and 2 in suggesting that this type of thinking promotes conservative ideology.

Arousal was affected by our time pressure manipulation, but it was not responsible for the effect of time pressure on conservatism. Although political conservatism has been linked to negative affect (Jost et al., 2003; Wilson, 1973), time pressure affected conservatism directly, rather than through mood.

Neither the response times to terms tapping political conservatism and political liberalism nor ratings of their complexity differed. This suggests that the increased preference for political conservatism was not because it was easier to understand or process (Alter & Oppenheimer, 2009; Reber, Winkielman, & Schwarz, 1998).

One alternative account is that the manipulation of time pressure increased needs for cognitive closure. Need for closure reflects an aversion to uncertainty and a preference for clear and definitive answers (Kruglanski & Webster, 1996), and both time pressure (e.g., Heaton & Kruglanski, 1991; Kruglanski & Freund, 1983) and cognitive load (Ford & Kruglanski, 1995) have been conceptualized as situational determinants of closure needs. Because political conservatism is thought to provide stability and certainty (Jost et al., 2003), our participants may have been drawn to it when under load and time pressure. If our claim that low-effort thought promotes conservative ideology is correct, it should be possible to increase conservatism via low effort thought independent of epistemic needs. This was the goal of Study 4.

Study 4

In our last study, we manipulated reliance on low-effort thought as simply and directly as possible. Participants endorsed political terms under instruction to consider each in either a deliberate or cursory manner. We expected participants who used little mental effort to endorse conservative ideology more than those who used deliberate processing. To confirm that our manipulation was not just another means of increasing epistemic motivation, we measured participants' needs for closure and structure immediately following our processing manipulation.

We also sought direct evidence that low-effort processing was responsible for increases in political conservatism. Because depth of processing affects memory (e.g., Craik & Tulving, 1975; Jacoby & Dallas, 1981), we presented participants with a surprise recognition memory task at the end of the study; they were shown a number of political terms and asked to recognize which had been presented previously. We considered recognition accuracy to be an indicator of the extent to which participants relied on high- versus low-effort thinking, and expected it to be at least partially responsible for the relationship between our processing manipulation and endorsement of political conservatism.

Method

Participants. Thirty-four undergraduates from the University of Arkansas (66% female) enrolled in introductory psychology courses participated in exchange for extra credit. Participants were run individually, randomly assigned to receive either high- or low-effort processing instructions.

Procedure. Participants were taken to a small room; instructions appeared on a computer monitor, and participants indicated their responses with a button box.

Participants read that the study concerned social attitudes and that soon they would respond to some words and phrases. Participants were then shown 30 terms to which they indicated their endorsement under high-effort or low-effort processing conditions. Immediately following this task, participants completed self-report measures of epistemic motivation. This allowed us to determine whether the processing manipulation affected epistemic needs; it also cleared participants working memory before they were asked to complete a surprise recognition memory task. The study took approximately 15 min; participants were then debriefed, thanked, and dismissed.

Effortful processing manipulation. In the *high-effort processing* condition, participants were told to "think hard about each term before responding. Don't give your first response. Instead, really put forth effort and consider the issue. Take your time and give a careful and thoughtful response." In the *low-effort processing* condition, participants were told to "give your first, immediate response to the terms. Don't think too hard about your response; don't debate yourself. Instead, go quickly and give your first, initial response to the terms as soon as you read them." Terms appeared one at a time and participants advanced at their own pace.

Measurement of political attitudes. We again used terms from the SRS to measure political ideology. A total of 30 terms were chosen; 15 measured political conservatism ($\alpha = .77$) and 15 measured political liberalism ($\alpha = .80$; one item, *capitalism*, was removed from the conservatism scale because it was negatively correlated with the remaining items). Responses were made on scales ranging from −3 (*strongly disagree*) to +3 (*strongly agree*). As in our previous studies, conservatism and liberalism scales were uncorrelated, $r = -.02$, $p > .87$.

Measurement of epistemic motivation. Immediately after responding to the terms, participants completed the short form of the Need for Closure Scale (Roets & Van Hiel, 2011; $\alpha = .89$) and the Personal Need for Structure Scale (Neuberg & Newson, 1993; $\alpha = .88$). Participants completed these measures using a 1 (*strongly disagree*) to 7 (*strongly agree*) response format.

Recognition memory. Participants were then shown 66 terms, the 30 previously presented and 36 distractors (the remaining items from the SRS and other ideological terms). Terms were presented in random order. Participants indicated whether they had seen the exact term before by responding "yes" or "no." We used signal detection analysis (Swets, 1964) to determine participants' response accuracy by calculating d', the difference between the proportions of correct recognitions ("hits") and false recognitions ("false alarms") in standardized z scores (see Stanislaw & Todorov, 1999). This measure controls for random guessing and biased responding; positive higher values indicate more accurate recognition of terms.

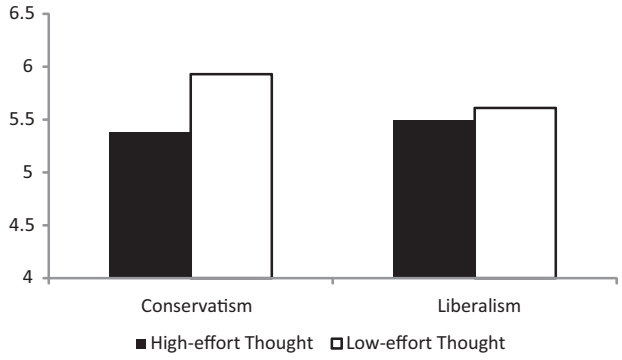

Figure 3. Endorsement of political conservatism and political liberalism as a function of effortful processing

Results

Political attitudes. Consistent with predictions, processing instructions affected endorsement of political conservatism; those instructed to use low-effort thought endorsed conservative terms more ($M = 5.93$, $SD = 0.37$) than those who were instructed to use high-effort thought ($M = 5.38$, $SD = 0.52$), $t(32) = 3.47$, $p < .002$, $\eta^2 = .27$ (see Figure 3). In contrast, processing instructions did not affect endorsement of liberal terms, $t(32) = 0.47$, $p > .63$ (Ms = 5.49 and 5.61, SDs = 0.55 and 0.83, in the high- and low-effort processing conditions, respectively).

Epistemic needs. Neither needs for closure, $t(32) = 1.57$, $p > .12$, or structure, $t(32) = 1.17$, $p > .25$, were affected by our processing manipulation. Moreover, these constructs were unrelated to conservatism (rs = .11 and .01) and liberalism (rs = .02 and −.08) for closure and structure, respectively, all ps > .51.

Recognition memory. A t test comparing d' scores across processing conditions was significant, $t(31) = 3.29$, $p < .003$; participants were more accurate recalling terms under high-effort ($M = 0.80$, $SD = 1.06$) than low-effort ($M = -0.60$, $SD = 1.37$) conditions.[3]

Mediation analyses. Additional analyses indicated that d' scores partially mediated the relationship between effortful processing and endorsement of political conservatism. d' scores were negatively related to conservatism, $\beta = -.57$, $t(32) = -3.72$, $p < .0001$, and although processing condition (0 = *low effort*; 1 = *high effort*) continued to predict conservatism when d' scores were included in the model ($p < .04$), the drop in β (to −.35) was significant, Sobel $z = -2.21$, $p < .03$.

Discussion

Study 4 provides strong evidence that low-effort thought promotes political conservatism: The direct manipulation of effortful processing altered participants' endorsement of conservative ideology. When instructed to use shallow processing, political conservatism generated more agreement than when participants were instructed to think hard. Because needs for closure and structure were unaffected by this manipulation—and were unrelated to political conservatism—epistemic motives make a poor explanation for these data.

Direct support for the role of low-effort thought in promoting political conservatism comes from meditational analyses. Depth of processing has downstream effects, including recall accuracy (Craik & Tulving, 1975). Those instructed to use shallow processing had poorer recall at the end of the study, and recall accuracy was partially responsible for the link between processing style and conservatism. These results enhance confidence that our experimental manipulation of deliberation increases the care taken in processing. And when care, consideration, and cogitation increases, we find that endorsement of political conservatism decreases.

These findings were again limited to conservatism; there were no comparable or contrastive effects found for political liberalism. There seems to be something unique about the ideological content of political conservatism and its relation to low-effort thought.

General Discussion

Four studies support our assertion that low-effort thinking promotes political conservatism. In Study 1, as alcohol intoxication increased among bar patrons in a community sample, so too did political conservatism (with participant sex, education level, and ideological self-identification partialled out). In Study 2, participants under cognitive load reported more conservative attitudes (and less liberal attitudes) than participants not under load. Time pressure (Study 3) and direct instruction to use low-effort thought (Study 4) increased endorsement of words and concepts related to political conservatism. Across these different measures, manipulations, and samples, data were consistent in suggesting that low-effort thought promotes conservative ideology.

Differences in the complexity of stimuli used to measure political conservatism cannot account for these findings. If conservative words, phrases, and statements were easier to understand than their liberal counterparts, we might expect our results to be mediated by processing fluency (Alter & Oppenheimer, 2009; Reber et al., 1998). Yet independent ratings of complexity for conservative and liberal stimuli did not differ, nor did response times.

Several theorists have suggested a link between negative affect and conservatism (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950; Jost et al., 2003; Wilson, 1973). In our studies, momentary changes in frustration, annoyance, and mood did not covary with changes in political attitudes, and the causal relationship between time pressure and political attitudes remained when arousal was statistically removed. Situationally induced shifts in negative affect do not appear responsible for the pattern of data found in our studies.

Our findings complement the motivated social cognition approach of Jost and his colleagues (Jost et al., 2003; Jost et al., 2007). According to this approach, the endorsement of political conservatism stems from needs to manage threat and uncertainty, and this approach could characterize the manipulations of load and time pressure as increasing participants' needs for cognitive closure. When distracted or in a hurry, the cost of not having closure and the need to reach a quick, simple, and certain answer increases. Conservative ideology, in this account, is well suited to meet these needs (Chirumbolo et al., 2004; Jost et al., 2003).

Like our own approach, the need for closure account emphasizes the unique content of conservative ideology, but there is also an important difference. According to the closure account, the ability of political conservatism to provide certainty and stability increases endorsement of this ideology under load and time pressure. In contrast, we maintain that conservative ideology matches the output of low-effort thought; epistemic needs may be sufficient to increase dependence on low-effort thinking (e.g., load is thought to increase the cost of not having closure *because* it requires more effort; Ford & Kruglanski, 1995), but it is not necessary. We argue that the products of low-effort thought are consistent with political conservatism, and the data from Study 4 are consistent with this account, independent of closure needs.

Connections

We are not the first to link social-cognitive processes to the realm of politics. Historically, researchers have emphasized the storage, organization, and retrieval of political concepts, and how in consequence new information is processed (e.g., Conover & Feldman, 1984; Lau & Sears, 1986; see McGraw, 2000, for a review). More recently, the motivated aspects of political cognition have been highlighted (Jost et al., 2003). We are not at odds with these perspectives. Instead, we underscore an online, cognitive process by which political information is considered, interpreted, and evaluated to the favor of political conservatism.

We also distinguish our approach from research on ideology and cognitive style. Many have suggested that liberals and conservatives differ in the way they think, with those on the right of the political spectrum thought to process information in more simple-minded terms (Adorno et al., 1950; Stone, 1980; Tetlock, 1983). This hypothesis has support (e.g., Jost et al., 2003), but is not our claim. *We argue that low-effort thinking promotes political conservatism, not that conservatives rely on low-effort thought*. Similarly, we do not assert that conservatives fail to engage in effortful, deliberative thought but rather that disengagement of effortful thinking leads to cognitions consonant with political conservatism.[4]

Ideology is multiply determined, coming from many sources, including values, experience, history, and culture (Conover & Feldman, 1981; George, 1969; Jost, Federico, & Napier, 2009; Lane, 1962). The processes we have studied suggest one modest link—early and important, but not dispositive. The wide variety of North American political beliefs reminds us to be restrained in interpreting these data.

Implications

The psychological foundation from which ideology is derived may not be neutral. Without the means or motive to override an initial impulse that promotes conservative ideology, the political scales may be tipped toward the right of center and may provide a contributing explanation for what has been described as a conservative bias in American politics (e.g., Frank, 2004; Jost, 2006).

This analysis also suggests that some forms of political ideology may result from intentional and effortful correction. For example, Wänke and Wyer (1996) found that liberals scored higher than conservatives on the Attributional Complexity Scale (Fletcher, Danilovics, Fernandez, Peterson, & Reeder, 1986), an indicator that the former generate more complex and detailed (if not more effortful) explanations for the behavior of others. Skitka and her colleagues (Skitka et al., 2002; Study 4) analyzed interviews conducted for the 1987 National Election Studies and found that liberals were more than twice as likely as conservatives to correct an initial "person" attribution with a "situation" explanation in response to a question about government assistance. These correlational findings suggest that some instances of ideology may result from correction processes, overriding and adjusting initial conservative responses. Our experimental studies provide evidence of causal direction.

Boundaries

It is quite likely that well-rehearsed, habitual political positions are unaffected by load, alcohol, or distraction—even when drunk, a longtime Republican does not think herself a Democrat, and a busy and highly distracted, committed liberal isn't confused into endorsing conservative opinions.

We did not recruit extreme ideologues or the politically sophisticated, both of whom are efficient processors of political information (Milburn, 1987). Those who are ideologically schematic may be resistant to manipulations of low-effort thought. People with strong political views—left or right—show more cognitive ability than broadly defined centrists (Kemmelmeier, 2008), and the ideological or extreme liberal might demonstrate efficient thought processes that favor the left end of the political spectrum (e.g., Moskowitz, Gollwitzer, Wasel, & Schaal, 1999).

We also recognize the historical and cultural boundaries of our ideas and data. In a context where the components of conservatism we discussed are independent or not otherwise linked to political conservatism (e.g., if preference for hierarchy were linked to political liberalism), low-effort cognitive

processing may not promote conservative ideology. The arrangement of what kinds of cognitions occur quickly and easily may be as culturally varied as the arrangements of political ideology by culture. There is little question that psychological process affect and are affected by culture (Schaller & Crandall, 2004), and the same is true of political ideology (e.g., Bisin & Verdier, 2000). In a North American context, the evidence suggests that cognition is arranged to readily perceive responsibility and blame, to quickly notice and accept hierarchy, and to easily prefer the status quo. The argument for a broader cultural context is yet to be made.

Concluding Remarks

Low-effort thinking promotes political conservatism. This claim provides a counterweight to early psychological perspectives on political ideology that tended to see conservatism in somewhat pathological terms (Adorno et al., 1950). Our findings suggest that conservative ways of thinking are basic, normal, and perhaps natural. Motivational factors are crucial determinants of ideology, aiding or correcting initial responses depending on one's goals, beliefs, and values. Our perspective suggests that these initial and uncorrected responses lean conservative.

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Notes

1. We did not expect alcohol to interfere with participants' ability to recognize and report their self-identification as liberal or conservative. Instead, we expected complex judgments—attitudes concerning political ideology—to be related to the disruption of effortful thought.
2. To test this alternative explanation, we analyzed responses of 8,888 nationally representative high school students (Johnston, Bachman, O'Malley, & Schulenberg, 2006). In the 2006 data sample, more than 70% of these respondents had had an alcoholic drink ("more than a few sips"). We correlated political ideology with a measure of drinking, "On how many occasions (if any) have you had alcoholic beverages to drink—more than just a few sips during the last 12 months?" We found a negative correlation between conservatism and alcohol intake, $r = -.11$, $p < .00001$. Young adults have embarked on behavior patterns that last well into their adulthood (Margulies et al., 1977), and we find that conservatives are somewhat less likely to report drinking alcohol, not more. These data undermine the argument that the correlation in Study 1 is due to the greater likelihood of conservatives to imbibe; the population tendency seems to go in the opposite direction.
3. One statistical outlier was removed from this analysis.
4. To argue as much would commit the logical fallacy of affirming the consequent: If A then B $\neq$ if B then A (Cheng & Holyoak, 1985; Tidman & Kahane, 2003). Deliberative and thoughtful political cognition might match efficient cognition (for some conservatives), it might be more conservative (e.g., reactionaries, libertarians), it might be more liberal (e.g., moderates¸ liberals, progressives), and it might even be irrelevant. Efficient and effortful responses matter, and both play a role in judgment, thought, and goal-directed activity (Chaiken & Trope, 1999).

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