

A Dual-Motive Model of Scapegoating: Displacing Blame to Reduce Guilt or Increase Control

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The authors present a model that specifies 2 psychological motives underlying *scapegoating*, defined as attributing inordinate blame for a negative outcome to a target individual or group, (a) maintaining perceived personal moral value by minimizing feelings of guilt over one's responsibility for a negative outcome and (b) maintaining perceived personal control by obtaining a clear explanation for a negative outcome that otherwise seems inexplicable. Three studies supported hypotheses derived from this dual-motive model. Framing a negative outcome (environmental destruction or climate change) as caused by one's own harmful actions (value threat) or unknown sources (control threat) both increased scapegoating, and these effects occurred indirectly through feelings of guilt and perceived personal control, respectively (Study 1), and were differentially moderated by affirmations of moral value and personal control (Study 2). Also, scapegoating in response to value threat versus control threat produced divergent, theoretically specified effects on self-perceptions and behavioral intentions (Study 3).

Keywords: dual-motive model, scapegoating, guilt, personal control, climate change

Scapegoating is the act of blaming and often punishing a person or a group for a negative outcome that is due, at least in large part, to other causes. Infamous historical examples of scapegoating include the witch trials that occurred in Europe and North America from the 14th to the 18th century, when members of Christian institutions accused thousands of people (mostly women) of corrupting society's moral integrity by practicing witchcraft, and the Nazis' attempted extermination of Jews and other minority groups for their alleged responsibility for Germany's economic collapse. Capetown, Bosnia, and Rwanda give additional testimony to the violent conflict that can result when one group is designated as the chief cause of major misfortunes.

Scapegoating continues to occur today in various forms. Whether it is politicians blaming China for the worldwide economic recession (Chen, 2010), Americans blaming Muslims for all incidents of terrorism (Foley, 2011), or religious fundamentalists blaming homosexual individuals for the decline of traditional American values (Eckholm, 2011), people seem all too eager to heap blame onto others for major misfortunes. It is therefore surprising that, after receiving a flurry of theoretical and empirical attention during the 1940s and 1950s (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Allport, 1948, 1954/1979; Dollard, Doob, Miller, Mowrer, & Sears, 1939; Hovland & Sears, 1940), the topic of scapegoating has largely receded from focus in contemporary social psychology.

To fill this gap, we present a "dual-motive" model that attempts to provide an integrative and generative empirical framework for understanding when people are most likely to scapegoat and what psychological motives underlie this behavior at the level of the individual. We describe our model in more detail below, but briefly stated, it posits that scapegoating can serve two meaningfully distinct motives: (a) maintaining perceived personal moral value by minimizing feelings of guilt over one's responsibility for a negative outcome and (b) maintaining perceived personal control by obtaining a clear explanation for a seemingly inexplicable negative outcome that is otherwise difficult to explain or control.

We assess this dual-motive model in three studies that test whether activating each motive influences scapegoating as a function of theoretically specified predictors, mediating variables, and moderating variables. We also test whether the effect of activating each motive on scapegoating produces distinct downstream effects on self-perceptions and behavioral intentions. These studies test model—derived hypotheses in the context of people's attitudes toward environmental destruction and global climate change—topics of contemporary societal concern.

In the following two sections, we bring into relief two influential theoretical accounts of the motives behind scapegoating: one focused on the motive to perceive the self as morally valuable, the other focused on the motive to perceive the self as having control over one's environment. We then describe how our dual-motive model integrates both accounts in a way that permits the derivation of novel, testable hypotheses about the causes and consequences of scapegoating.

Scapegoating to Maintain Moral Value

Gordon Allport (1948, 1954/1979) observed that the term *scapegoat* derives from the Biblical story of the goat that ancient Israelites used to carry their sins into the desert. Interpreting this

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story and the psychology of blame displacement through the lens of psychoanalytic theory, Allport argued that scapegoating can occur as a special case of defensive projection, that is, attributing to somebody else a thought or an impulse that is feared in oneself. In scapegoating, the individual or group seeks to symbolically purge their own (largely implicit) feelings of inferiority, guilt, and self-hatred by perceiving a target individual or an outgroup as immoral or dangerous, and by expelling, isolating, or otherwise punishing that scapegoated target.

Allport stressed that scapegoating is a flexible strategy for maintaining the perceived moral value of oneself or one's group, by which he meant that people can relieve their negative self-views by projecting superficially unrelated negative characteristics onto scapegoats (e.g., suppressing the threatening awareness of one's own sexual impulses by projecting greediness onto an outgroup). Adorno et al. (1950) similarly proposed that people's occasional desire to punish others who violate societal norms is driven by repressed hostility tracing back to superficially unrelated childhood conflicts. However, this conception of scapegoating as a flexible strategy to maintain perceived moral value failed to garner empirical support (e.g., Gollwitzer, 2004), and it fell into disfavor as psychoanalytic theory receded from the mainstream in the social sciences (Glick, 2005).

More recent theoretical accounts in this vein (e.g., T. Douglas, 1995) posit that scapegoating is better understood as a strategy that people use to minimize feelings of guilt over their responsibility for a specific negative outcome by transferring blame for that outcome to another individual or group. Consistent with this revised view is research showing that people externalize blame for negative outcomes that would otherwise incriminate themselves or their group, even when self-presentation concerns are minimized (Campbell & Sedikides, 1999; Kelly & Michela, 1980; Mezulis, Abramson, Hyde, & Hankin, 2007; Sheppard, Malone, & Sweeny, 2008). However, to our knowledge, prior research has not provided a direct empirical test of whether people attribute inordinate blame for a negative outcome they experience to a target outgroup in order to minimize feelings of guilt connected to their potential responsibility for that outcome. One goal of the present research was to directly test this possibility.

Although an account of scapegoating emphasizing people's motive to maintain perceived personal moral value offers a provocative explanation for many instances of scapegoating, it would seem to have difficulty explaining those instances in which individuals are unlikely to perceive themselves as responsible for the relevant negative outcome. For example, in 2001, television evangelist Pat Robertson famously declared that civil liberties organizations, feminists, and other politically left-leaning groups were largely to blame for the September 11, 2001, terrorist attacks on the United States, and yet it is unlikely that Robertson felt implicit or explicit guilt over his personal responsibility for those attacks. Such instances may be better explained by another theoretical account of scapegoating, described next.

Scapegoating to Maintain Perceived Personal Control

Classic (e.g., Bandura, 1977) and contemporary (Kay, Whitson, Gaucher, & Galinsky, 2009) perspectives converge on the notion that people are fundamentally motivated to maintain the perception that they have effective control over their environment. People's

perceived personal control can be threatened when they encounter a significant negative outcome, such as a disease epidemic or an economic recession, that appears to be due to unknown or chaotic factors. Focalizing responsibility for the negative outcome onto a scapegoat may serve as a strategy for restoring perceived control because scapegoats, in contrast to chaotic and impersonal forces, can be clearly identified, counteracted, and (at least) understood. Note that this account of scapegoating is distinct from the previously discussed account emphasizing moral value maintenance. If people are confronted with a hazardous or an otherwise threatening event or circumstance that lacks an easily comprehensible and controllable cause, they may be motivated to explain it in a way that restores perceived control even if they do not feel significant guilt over their responsibility for that negative outcome.

Theoretical support for this control-maintenance account comes from Allport (1948), who proposed that scapegoating can help the individual maintain the perception that the external world is orderly, stable, and predictable (rather than chaotic and dangerous). Staub (1989) similarly proposed that genocide is largely fueled by the perpetrator group's desire to find a scapegoat that can be seen as responsible for large-scale threatening outcomes that are otherwise difficult to explain. Most recently, Glick (2002, 2005) proposed that individuals are attracted to ideologies that attribute widespread negative outcomes without clear causes to the actions of a target group because such ideologies provide a simple, culturally sanctioned explanation for why bad things happen, as well as a ready-made solution for restoring perceived control over the environment: punishing or eliminating the scapegoat.

In addition to highlighting the control-restorative function of scapegoat ideologies, Glick (2005) noted that whether or not scapegoating is an effective means of restoring perceived control following exposure to a seemingly inexplicable outcome depends on the scapegoated target's perceived "viability." A viable scapegoat is perceived as possessing both the ability and the malicious intent necessary to deliberately cause the threatening outcome that needs to be explained. In contrast, if a person or group appears patently incapable of having caused the outcome—for instance, if they appear too weak to have exerted the amount of influence necessary—then they will likely be perceived as a nonviable scapegoat and will therefore not restore perceived personal control. Glick supports this analysis by pointing out that groups stereotyped as competent and malicious, rather than as weak and vulnerable, are most likely to be designated as scapegoats. For example, the Nazis blamed the "worldwide Jewish conspiracy" for causing Germany's collapse, citing the relative success of the Jewish people in banking, industry, the media, and government. In support of this notion, Bilwicz and Krzimirski (2010) found that perceptions of Jewish control appeared to partially mediate the effect of deprivation on anti-Semitism in a Polish sample.

Although it might be expected that encountering powerful, malicious outgroups would *reduce* perceived control compared with weaker targets, it is possible that people prefer seeing viable scapegoats as responsible for a seemingly random negative outcome to leaving that outcome unexplained. Even the most powerful scapegoat target permits relatively greater control by presenting the individual or group with a clear agent against which to focus their efforts in coping with the negative outcome.

Glick's (2002) analysis focuses on expressions of scapegoating at the level of group relations and ideologies, and therefore does

not emphasize the potential role of control motivation in driving scapegoating behavior at the individual level. Recently, however, Sullivan, Landau, and Rothschild (2010) demonstrated that control motivation lies behind the related individual-level tendency to attribute malevolent power to an enemy figure. These researchers theorized that people’s perception of control is threatened by their awareness that multiple sources of potential hazard are spread diffusely throughout their environment, because this implies that their well-being and even existence is subject to the influence of indifferent and indeterminate forces. To the extent that people perceive an enemy to be an influential source of misfortune in their life, they can perceive their environment as containing less randomly distributed risk and thus feel a greater sense of personal control.

This analysis yields the hypothesis that people will imbue real or imagined enemies with undue power as a way of transferring ambient danger onto a more concrete and comprehensible adversary. Consistent with this hypothesis, Sullivan et al. (2010) showed that increasing the salience of diffuse potential hazards in the environment (e.g., natural disasters, airborne diseases) led participants to attribute increased responsibility to a personal enemy for a range of potential misfortunes unrelated to those salient hazards (e.g., lost computer files; suspicious bank account activity). A follow-up study showed that among participants who contemplated diffuse chaotic hazards, those presented with an enemy figure capable of perpetrating a wide range of misfortunes perceived their environment as containing less randomly distributed risk and, consequently, perceived themselves as having more control over their life.

These findings provide indirect support for our claim that the motive to maintain perceived personal control lies behind scapegoating. Nevertheless, it is important to recognize the conceptual differences between the processes behind scapegoating and enemyship. Theoretical perspectives on enemyship view it as a broad, distal strategy for maintaining perceived control by reducing the perceived likelihood of encountering myriad prospective threats in the world (see M. Douglas, 1966). Consistent with this notion, research shows that people respond to salient chaotic hazards by projecting onto an enemy figure influence over misfortunes unrelated to the precipitating hazards (Sullivan et al.,

2010). In contrast, scapegoating is viewed as a more proximal strategy for maintaining perceived control in the face of a seemingly inexplicable negative outcome by blaming a plausible agent for that outcome. In light of these differences, we believe that the findings from Sullivan et al.’s enemyship research are suggestive but do not bear directly on the possibility that increasing the salience of causal uncertainty surrounding a particular negative outcome will motivate people to attribute increased blame for that outcome to a viable scapegoat target, but not a nonviable scapegoat target. Furthermore, it remains to be tested whether this effect occurs indirectly through decreased perceptions of personal control over the relevant negative outcome, and whether it is moderated by situational variations in perceived personal control. One goal of the present research was to directly test these possibilities.

A Dual-Motive Model of Scapegoating

The preceding literature review highlights two conceptually distinct motives that potentially lie behind scapegoating at the individual level: maintaining one’s perceived moral value by minimizing guilt over one’s wrongdoing, and maintaining one’s perceived personal control by explaining a negative outcome in one’s environment that otherwise seems beyond one’s ability to understand or control. Rather than attempt to determine which motive is paramount, reduce one to the other, or reduce both to a common source, we propose that each motive contributes independently to scapegoating. An advantage of this approach is that it allows us to propose separate “paths” to scapegoating. Each path explains why scapegoating occurs in response to the salience of different constructs of a negative outcome, how scapegoating is mediated and moderated by different intervening variables, and the different, and even divergent, consequences of scapegoating for self-perceptions and behavioral intentions. These two paths are integrated in our dual-motive model, which is graphically represented in Figure 1 and described next.

The Moral Value Maintenance Path

Our model defines scapegoating along the moral value maintenance path as a response to a significant negative outcome con-

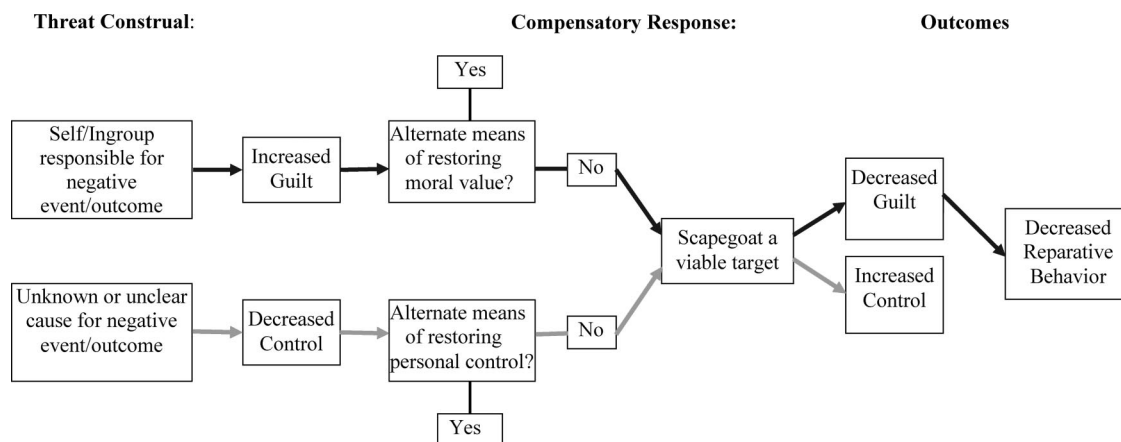


Figure 1. Conceptual diagram of the dual-motive model of scapegoating.

strued as being at least partially the result of the harmful actions of oneself or one's group. In this situation, individuals experience feelings of guilt over their harmful actions and a compensatory desire to minimize their guilt. These feelings of guilt partly stem from an elevated sense that the self or one's group has control over, and is therefore responsible for, the negative outcome in question. If individuals are unable to restore perceived moral value by other means, they will attribute increased blame to an available scapegoat target that is perceived as capable of bearing responsibility for the outcome (i.e., a viable scapegoat), thus yielding their own perceived responsibility over the outcome. They will also report a corresponding desire to punish the scapegoat.

The Perceived Control Maintenance Path

Our model defines scapegoating along the control maintenance path as a response to a significant negative outcome construed as caused by factors that are beyond one's ability to explain or control. In this situation, individuals experience decreased perceptions of *personal control*, defined as a general sense of personal efficacy, and a compensatory desire to restore perceived personal control. If individuals are unable to restore perceptions of general personal control by other means, they will attribute increased blame to an available scapegoat target seen as capable of providing a clear causal explanation for, and potential means of coping with, the relevant negative outcome.

Downstream Consequences

Proposing independent motivational paths for scapegoating allows us to specify hypotheses about not only distinct predictors, mediators, and moderators, but also the divergent downstream consequences of scapegoating as a function of which path is involved. Along the moral value maintenance path, blaming a viable scapegoat for the relevant negative outcome should reduce feelings of guilt. It should also result in lower perceived responsibility for the relevant negative outcome. The latter hypothesis is based on previous research and theory suggesting that feelings of guilt emerge in response to perceiving oneself as having causal control over, and thus responsibility for, a given negative outcome (e.g., McGraw, 1987; Tangney, 1993). Insofar as feelings of guilt are predicated on feeling personal control over a particular negative outcome, we expect that attributing blame to a viable scapegoat for that outcome will cause participants to report both reduced feelings of guilt and reduced perceptions of personal responsibility.

Along the control maintenance path, attributing blame to a viable scapegoat for the relevant negative outcome should have the opposite consequence for perceptions of personal control defined more broadly as a general sense of personal efficacy. When people are exposed to a particular negative outcome that seems beyond their ability to comprehend and control, subsequent exposure to a scapegoat who can be viably blamed for that outcome should increase perceived personal control. This hypothesis is indirectly supported by evidence that exposure to an enemy figure after a reminder of diffuse hazards bolstered participants' perceptions of general personal control (Sullivan et al., 2010). In contrast to its hypothesized influence on perceived personal control over a specific negative outcome, scapegoating along the control mainte-

nance path is not hypothesized to influence feelings of personal guilt, because the salience of an uncontrollable negative outcome does not necessarily assign causal responsibility for that outcome to the self.

Our dual-motive model also specifies hypotheses related to the downstream consequences of scapegoating on behavioral intentions. Prior research shows that the motivation to reduce feelings of guilt drives people to engage in behaviors aimed at repairing the harm they have caused (e.g., Amodio, Devine, & Harmon-Jones, 2007; Ketelaar & Au, 2003; Nelissen, Dijker, & De Vries, 2007). Therefore, along the moral value maintenance path, the presence of a viable scapegoat should, by reducing feelings of guilt, reduce individuals' willingness to engage in behaviors aimed at ameliorating the harm they have caused. In contrast, we do not expect scapegoating along the control maintenance path to have this effect on intentions to engage in reparative behaviors.

Overview of the Present Studies

In the present studies, we tested hypotheses derived from our dual-motive model with the broad goal of demonstrating the existence and independence of two motivational paths to scapegoating. More specifically, we tested whether scapegoating can occur as a function of distinct, theoretically specified predictors, mediating variables, and moderating variables, and furthermore whether scapegoating along each path produces distinct downstream consequences for self-perceptions and behavioral intentions. We tested our model in the context of people's attitudes surrounding environmental destruction and catastrophic climate change, topics which we felt lent themselves equally to framings that threatened either perceived moral value or perceived personal control.

In Study 1, we tested the hypothesis that framing environmental destruction as a threat to either moral value or control would lead to scapegoating as a function of different mediating variables. Specifically, we predicted that participants primed to view environmental destruction as due to their own negligent behavior (value threat condition) would attribute greater responsibility for environmental destruction to oil companies (and report a corresponding desire to punish oil companies) compared with participants who were not primed with the hazardous consequences of environmental destruction (no threat condition), and that this effect would occur indirectly through feelings of personal guilt, but not through perceptions of personal control. We further predicted that participants primed to view environmental destruction as due to unknown causes (control threat condition) would attribute greater responsibility to, and desire stronger punishment of, oil companies compared with participants in the no-threat condition, and that this effect would occur indirectly through perceptions of personal control, but not through feelings of guilt.

We further assessed the independence of the value- and control-maintenance paths in Study 2 by testing whether the effects of framing climate change in a value-threatening or control-threatening manner on scapegoating would be differentially moderated by distinct affirmation inductions. Specifically, we predicted that the effect of a value threat on scapegoating would be attenuated if participants had the opportunity to affirm their moral value in a domain superficially unrelated to climate change, whereas the effect of a control threat on scapegoating would be

attenuated if participants had the opportunity to affirm their perceived personal control in an unrelated domain. As a critical test of the proposed independence of these motivational paths, we hypothesized that the effects of value threat and control threat on scapegoating would not be attenuated, respectively, by affirmation of one's personal control and moral value. To clarify, our empirical approach was to provide converging tests of our proposed model by measuring key hypothetical constructs in Study 1 and testing their hypothesized role in mediating scapegoating, and then experimentally manipulating those same constructs in Study 2 and testing their hypothesized role in moderating scapegoating.

Focusing on downstream consequences, in Study 3 we tested the hypothesis that participants in a value threat condition would report increased feelings of guilt and that this effect would be attenuated if participants were given the opportunity to blame a viable scapegoat (oil companies) for climate change, but not if they had the opportunity to blame a nonviable scapegoat (the Amish) for climate change. We also predicted that, among participants in a control threat condition, those given a chance to blame a viable scapegoat, but not a nonviable scapegoat, would report bolstered perceptions of general personal control. Finally, we hypothesized that participants under value threat and subsequently presented with a viable scapegoat would report less willingness to engage in behaviors meant to reduce their harmful impact on the environment, and that this interactive effect would be mediated by decreased feelings of guilt.

Study 1

In recent years, there has been a growing popular concern about hazards resulting from human destruction of the natural environment. People rarely assume personal responsibility for contributing to environmental destruction, however, and instead relegate blame to other groups such as governments or business organizations (Lorenzoni & Langford, 2002). In Study 1, we used this real-life context of scapegoating to provide an initial test of our dual-motive model. Specifically, we hypothesized that framing a negative outcome in either a value-threatening or a control-threatening manner would increase scapegoating equally but that these effects would be differentially mediated by feelings of personal guilt and perceptions of personal control.

We manipulated threat by framing the harmful consequences of environmental destruction as either the result of the participants' own actions (value threat condition) or the result of unknown causes and thus beyond participants' control (control threat condition). Participants assigned to a third, no-threat condition were not reminded of the hazards of environmental destruction. Afterwards, participants reported their feelings of personal guilt for their negative environmental impact and their perceptions of personal control over the harmful effects of environmental destruction. Finally, participants indicated the extent to which they believed that oil companies should be blamed and punished for the harmful consequences of environmental destruction.

We predicted that participants in both the value threat condition and the control threat condition would blame (and seek to punish) oil companies more than participants in the no-threat condition. We also predicted that the effect of threat on scapegoating would occur via distinct indirect effects according to condition: In the value threat condition, increased scapegoating should occur

through increased feelings of personal guilt, but not through variations in perceived control, whereas in the control threat condition, increased scapegoating should occur through decreased perceptions of personal control, but not through variations in feelings of personal guilt.

Method

One-hundred fourteen participants (62 women;¹ ages 18–55) completed a survey on a midwestern university campus in exchange for candy. Potential participants were approached by male and female experimenters and asked to complete a packet of opinion questionnaires dealing with current issues. Only 5% of those asked declined to participate. Participants were randomly assigned to conditions in a single-factor design with three levels: value threat versus control threat versus no threat.

Threat manipulation. The first questionnaire constituted the threat manipulation. In the value threat and control threat conditions, this questionnaire was described as an "Environmental Awareness Survey."

In the *value threat* condition, the purported purpose of the survey was to assess people's awareness of the lifestyle choices that contribute to environmental destruction. The instructions stated that threatening hazards result from environmental destruction, which is caused by the lifestyle choices that some people make every day. Participants were instructed to read seven statements describing environmentally destructive behaviors, which were purportedly proven to cause harmful environmental conditions, and to rate how true each statement was for them personally. In an effort to increase participants' feelings of personal responsibility for environmental hazard, the seven statements refer to behaviors that we assumed would be common for participants in our sample (e.g., "I drive my car when I could walk, ride a bike, or take public transportation; I use the dryer when I could air-dry my clothing instead"). Responses were made on a 7-point scale (1 = *not at all true for me*, 7 = *completely true for me*). Supporting our assumption that the items referred to common behaviors, a one-sample *t* test revealed that the grand mean of the composite scores averaging across the seven items ($M_{grand} = 5.00$, $SD = 1.11$) was significantly higher than the scale's midpoint (4), $t(31) = 5.26$, $p < .001$.

In the *control threat* condition, the purported purpose of the survey was to assess people's beliefs about how much control they have over hazards caused by the unexplained destruction of the natural environment. The instructions stated that threatening hazards result from environmental destruction, which is caused by "unknown sources." Participants were instructed to indicate their agreement with seven statements regarding their personal control over hazardous environmental conditions, all of which concerned large-scale environmental hazards meant to be perceived as beyond any individual's control (e.g., "I have control over tornadoes and other natural disasters; I have control over whether my state suffers from drought or flooding"; 1 = *not at all true for me*, 7 =

¹ In this and the following studies, we originally performed our primary analyses including gender as a between-subjects variable. Because we observed no significant main effects or interactions involving gender, we omit gender from our reporting of the results to simplify presentation.

completely true for me). Although specific examples of hazardous environmental conditions were identified, the instructions emphasized that the source of the environmental destruction purportedly causing these hazardous conditions is unexplained. Supporting our assumption that these items referred to outcomes that participants would perceive to be beyond their personal control, a one-sample t test revealed that the grand mean of the composite scores averaging across the seven items ($M_{grand} = 2.40$, $SD = 1.03$) was significantly lower than the scale's midpoint (4), $t(37) = -7.14$, $p < .001$.

Participants in the *no-threat* condition responded to a "Personality Awareness Survey" purportedly designed to assess the gap between university administrators' awareness of student lifestyles and students' actual behavior. Participants indicated their agreement with seven statements referring to relatively benign aspects of daily life (e.g., "I like to stay busy and get bored easily") using the same 7-point scale used in the other two conditions.

Guilt measure. After the threat manipulation, participants were presented with response items developed by Ferguson (2009) for the purpose of measuring feelings of guilt over contributing to climate change, but here adapted to refer to one's personal contribution to environmental harm more generally. Specifically, participants were instructed to indicate their agreement with four statements referring to their guilt over contributing to environmental harm (e.g., "I feel guilty for the negative impact my lifestyle has on the environment"). Participants made their responses by marking an X on a continuous line anchored on the left with "not at all" and on the right with "very much." These responses were coded in centimeters from the left end of the line, such that higher scores indicated higher feelings of guilt (possible scores ranged from 0 to 13). Responses across the four items were internally reliable ($\alpha = .95$) and were averaged to create composite guilt scores ($M_{grand} = 5.59$, $SD = 3.37$).

Personal control measure. Because no existing measure could be found that specifically assessed perceptions of control over hazardous environmental conditions, this construct was measured by asking participants to indicate their agreement with a single face-valid item: "There is nothing I can do to prevent worsening environmental conditions." Participants made their responses using the same continuous scale used for the guilt measure ($M_{grand} = 9.29$, $SD = 3.15$). Responses on this item were reverse scored, such that higher scores indicated greater perceived personal control.

The guilt and control measures were counterbalanced in order of presentation, and preliminary analyses revealed no main effects or interactions involving presentation order; thus, this factor was omitted from subsequent analyses.

Scapegoating measure. Finally, participants answered five questions assessing the extent to which they believed oil companies should be blamed and punished for the harmful consequences of environmental destruction: "To what extent do you believe that: oil companies are responsible for the destruction of the environment?; oil companies are to blame for the effects of environmental devastation?; oil companies are at fault for the effects of environmental damage?; oil companies are guilty of severely damaging the global environment?; oil companies should be punished for their contribution to the destruction of the natural environment?" Responses were made on a 6-point scale (1 = *not at all*, 6 = *very*

much) and were averaged to form composite scapegoating scores ($\alpha = .94$).

Results

Guilt. First, we tested whether the threat manipulation influenced feelings of personal guilt in the hypothesized direction. Submitting guilt scores to a one-way (value threat vs. control threat vs. no threat) analysis of variance (ANOVA) revealed a significant omnibus effect, $F(2, 111) = 4.74$, $p = .01$, $\eta^2 = .08$.² Supporting predictions, pairwise comparisons (Fisher's least significant difference test) revealed that participants in the value threat condition reported feeling more guilt over the negative impact that their lifestyle has on the environment ($M = 7.03$, $SD = 3.24$) compared with participants in the control threat condition ($M = 4.69$, $SD = 3.26$), $F(1, 111) = 8.94$, $p = .003$, and the no-threat condition ($M = 5.31$, $SD = 3.26$), $F(1, 111) = 5.15$, $p = .03$. Mean levels of guilt in the control threat and no-threat conditions were statistically equivalent ($F < 1.00$, $p = .39$).

Personal control. A Levene's test for heterogeneity of variance indicated that responses to our measure of perceived personal control violated the homogeneity of variance assumption, $F(2, 111) = 8.23$, $p < .001$. Accordingly, we conducted Welch's alternative ANOVA procedure on perceived personal control scores, which Tomarken and Serlin (1986) identify as the optimal procedure when the homogeneity of variance assumption is violated. This analysis revealed a significant omnibus effect, $F(2, 65.139) = 5.04$, $p = .009$.³ As predicted, post hoc contrasts showed that participants in the control threat condition reported feeling less control over worsening environmental conditions ($M = 7.94$, $SD = 3.73$) compared with participants in the value threat condition ($M = 9.67$, $SD = 2.97$), $t(67.829) = 2.14$, $p = .04$, and no-threat condition ($M = 10.16$, $SD = 2.24$), $t(58.695) = 3.19$, $p = .002$. Mean personal control scores in the value threat and no-threat conditions were statistically equivalent, $t(54.997) = 0.79$, $p = .44$.

Scapegoating. Submitting scapegoating scores to an ANOVA revealed a significant omnibus effect, $F(2, 111) = 6.53$, $p = .002$, $\eta^2 = .11$. Compared with participants in the no-threat condition ($M = 3.94$, $SD = 1.01$), participants attributed more blame to, and reported greater desire to punish, oil companies for the harmful consequences of environmental destruction in both the value threat condition ($M = 4.53$, $SD = 0.95$), $F(1, 111) = 7.02$, $p = .01$, and the control threat condition ($M = 4.66$, $SD = 0.93$),

² Across all three studies, we conducted a Levene's test for heterogeneity of variance for all primary analyses. Although this analysis yielded a significant F statistic for the one-way ANOVA on personal control in Study 1 ($p < .001$), all subsequent tests were nonsignificant (F s < 2.15 , $ps > .10$), indicating that the homogeneity of variance assumption was met for the remainder of our analyses.

³ For all cases in which the assumption of homogeneity of variance was met, pairwise comparisons were tested with F tests using full-sample degrees of freedom and corresponding omnibus MSE terms. However, because it is not appropriate to use an omnibus MSE term for pairwise comparisons when the variance between groups is heterogeneous (Howell, 1997), we performed pairwise comparisons on perceived personal control in Study 1 with t tests using the Welch procedure and degrees of freedom estimated for each simple effect.

$F(1, 111) = 11.36, p = .001$. Mean scapegoating scores did not significantly differ between the two threat conditions ($F < 1.00, p = .59$).

Analysis of indirect effects. We then conducted separate indirect effect analyses to test our mediational hypothesis that the increased scapegoating produced by value threat and control threat occurs, respectively, through increased feelings of guilt and decreased perceptions of personal control.

Using the bootstrapping procedure and corresponding SPSS macro of Preacher and Hayes (2008), we first regressed scapegoating scores onto value threat condition (coded: value threat = 1/control threat = 0/no threat = 0), with guilt scores and personal control scores entered as the proposed mediators and control threat condition (coded: value threat = 0/control threat = 1/no threat = 0) entered as a covariate. Five-thousand bootstrap resamples were performed. As predicted, the 95% confidence interval obtained for the indirect effect of value threat condition on scapegoating scores through the mediator of guilt did not contain zero [.04, .39], whereas the confidence interval for the indirect effect of value threat through the mediator of perceived control did contain zero [-.24, .06]. These results are consistent with our mediational hypothesis that the increase in scapegoating in the value threat condition (vs. the no-threat condition) occurs through a corresponding increase in feelings of guilt; and importantly that this effect does not occur through variations in perceptions of personal control.

Using the same bootstrapping procedure, we then regressed scapegoating scores onto dummy-coded control threat condition with guilt scores, and personal control scores entered as proposed mediators and dummy-coded value threat condition entered as a covariate. The 95% confidence interval for the indirect effect of control threat on scapegoating scores through the mediator of perceived personal control did not contain zero [.03, .36], whereas the confidence interval for the indirect effect of control threat through the mediator of guilt did contain zero [-.04, .17]. These results support our mediational hypothesis that the increase in scapegoating in the control threat condition (vs. the no-threat condition) occurs through the corresponding decrease in perceived personal control, but not through variations in feelings of guilt (see Figure 2 for a graphical depiction of the mediation model).

Discussion

Supporting hypotheses, the results of Study 1 show that, compared with participants who were not reminded of the hazards of environmental destruction, those primed to feel personally responsible for environmental destruction or uncertain of its cause attributed more blame to oil companies and showed a greater desire to punish oil companies for the negative consequences wrought by such destruction. Results were also consistent with our differential mediational hypothesis: The effect of value threat on scapegoating occurred indirectly through increased feelings of personal guilt, but not through perceptions of personal control, whereas the effect of control threat on scapegoating occurred indirectly through decreased perceptions of personal control, but not through feelings of guilt. These results suggest that when individuals are confronted with a negative outcome framed as the result of their own harmful actions, they scapegoat in response to elevated feelings of personal guilt; when the cause of the harm is unknown, they scapegoat to compensate for decreased perceptions of personal control. These results support our broader theoretical claim that the desire to maintain a sense of personal moral value and the desire to maintain a sense of personal control constitute independent motivational paths to scapegoating.

In the next study, we sought to complement the mediational approach used in Study 1 with a moderation approach that involved manipulating (rather than measuring) the constructs of perceived moral value and perceived personal control. Specifically, we tested whether the effect of value threat and control threat on scapegoating would be attenuated, respectively, by affirmations of moral value and personal control. In addition, in Study 2 we addressed one limitation of Study 1, namely, that the general salience of negative environmental hazard differed as a function of threat condition. That is, beyond experiencing a value threat or a control threat, participants in both threat conditions were primed with the harmful consequences of environmental destruction, whereas those in the no-threat condition were not. This introduces the possibility that participants in both the value threat condition and the control threat condition showed higher scapegoating than participants in the no-threat condition simply because environmental hazard was more salient in those threat conditions. This possi-

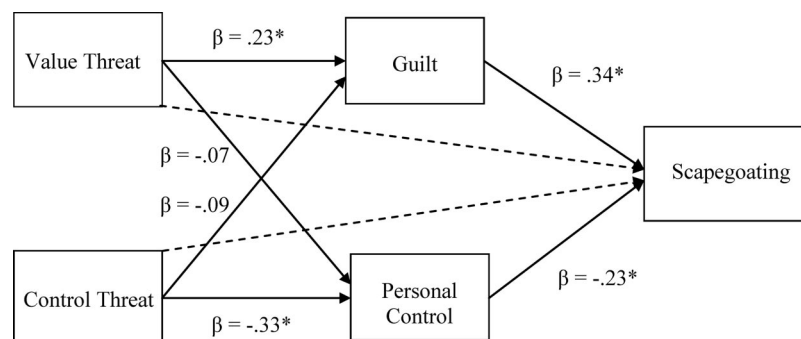


Figure 2. Indirect effects of threat condition on scapegoating through feelings of personal guilt and perceived personal control (Study 1). All path coefficients represent standardized regression weights. The direct effect coefficients represent the effect of each threat variable on the dependent variable after controlling for the effect of the proposed mediators. Total adjusted R^2 for the model = .20, $F(4, 109) = 8.21, p < .001$. Total effect of value threat: $\beta = .25^*$. Direct effect of value threat: $\beta = .17, ns$. Total effect of control threat: $\beta = .36^*$. Direct effect of control threat: $\beta = .29^*$. * $p < .05$.

bility seems unlikely given that we found evidence that these threat conditions increased scapegoating indirectly through distinct mediating variables specified by our model. Nevertheless, we attempted to rule out this possibility in Study 2 by exposing participants in all conditions to the same information about the perils of climate change and manipulating only the causal framing of this negative outcome.

Study 2

Study 2 provides a further test of the existence of independent motivational paths to scapegoating by including experimental manipulations designed to target the conceptual variables that we measured as mediators in Study 1. Specifically, in Study 2 we test whether the effects of value threat and control threat on scapegoating found in Study 1 are differentially moderated by affirmation inductions designed to restore perceptions of one's moral value or personal control. If framing a negative outcome as due to individuals' own harmful actions motivates them to compensate for the threat to their moral value by means of scapegoating, then providing an alternative means of restoring perceived moral value should attenuate this effect. Analogously, if framing a negative outcome as due to unknown causes motivates individuals to restore perceived personal control by means of scapegoating, then providing an alternative means of restoring perceived personal control should attenuate this particular effect.

To test these hypotheses, we presented participants with what was purported to be a scientific article that, depending on condition, framed catastrophic climate change as primarily caused by harmful actions on the part of participants' ingroup (young Americans), unknown sources, or the harmful actions of an outgroup (middle-aged Americans). Including this third condition allowed us to expose all participants to the same information about catastrophic climate change and thus control for possible effects of differential salience of environmental hazards.

After the threat manipulation, participants were asked to complete a writing task that gave them the opportunity to affirm either their own moral value or their sense of personal control in a domain unrelated to climate change. Participants then indicated the extent to which they blamed and desired to punish international corporations for the hazardous consequences of climate change. We changed the target scapegoat group from Study 1 (oil companies) to Study 2 (international corporations) to improve the generalizability of our hypothesized effects and ensure that they are not specific to oil companies as a targeted scapegoat. Given the popularity of blaming international corporations for various negative social, economic, and environmental outcomes (e.g., Kortens, 2001), we felt that this group would readily serve as a viable scapegoat target for the present study. Guided by our dual-motive model, we predicted that participants would show increased scapegoating of international corporations when the ingroup (vs. an outgroup) was framed as responsible for hazardous climate change and that this effect would be attenuated by a moral value affirmation, but not by a personal control affirmation. Furthermore, we predicted that participants would show increased scapegoating when hazardous climate change was attributed to unknown causes (compared with participants in the outgroup responsible condition) and that this effect would be attenuated by a personal control affirmation, but not by a moral value affirmation.

Method

Sixty-one psychology undergraduates (35 women) from a mid-western university participated in partial fulfillment of a course requirement. Because in this and the following study, moral value was threatened through an article attributing responsibility for global climate change to people ages 18–25, only participants within this age range were recruited. In a laboratory setting, participants were told that they would be taking part in two separate studies. The first study was described as an investigation of personality and knowledge about climate change, whereas the second study was described as an investigation of people's judgments about different groups. In private cubicles, participants completed all the materials on computers. Participants were randomly assigned to conditions in a 3 (threat condition: value threat vs. control threat vs. no threat) \times 2 (affirmation: moral value vs. personal control) between-subjects factorial design, with scapegoating serving as the dependent variable of primary interest.

Threat manipulation. First, all participants read an article, ostensibly written by scientific experts, entitled "The Causes and Consequences of Climate Change." The first section of this experimenter-fabricated article was identical across conditions and discussed the negative effects of climate change, including animal extinctions and an increasing threat of natural disasters. The second section, entitled "Who's to Blame?" differed across conditions.

In the *value threat* condition, this section identified young Americans (ages 18–25) as the primary contributors to climate change. The article concluded by stating that "Until young Americans start to acknowledge their responsibility for the damaging effects of climate change, things are likely to only get worse." In the *control threat* condition, this section of the article stated that scientists are currently unable to determine what causes climate change. The article concluded "Until we can identify who or what is responsible for the damaging effects of climate change, things are likely to only get worse." In the *no-threat* condition, this section of the article was nearly identical to the corresponding section of the article in the value threat condition except that middle-aged Americans (ages 35–55), rather than young Americans, were identified as the primary contributors to climate change.

Affirmation manipulation. Next, participants received a questionnaire purported to be a personality assessment. This questionnaire constituted our affirmation manipulation. Participants assigned to the *moral value affirmation* condition responded to the following writing prompt: "In a few sentences briefly describe something about yourself that makes you feel like a good and decent person." Participants in the *control affirmation* condition responded to the following writing prompt: "In a few sentences please briefly describe something in your life that you have complete control over." Underneath both prompts was a full page of blank lines. Inspection of participants' written responses revealed that no participant wrote about issues surrounding climate change.

Participants were then introduced to what was ostensibly a second, unrelated study. They were told that they would be asked to answer some questions about a group. To minimize suspicions about connections between the threat manipulation and our primary dependent measure, we arranged it so that the computer chose a target group ostensibly at random from an assortment of

candidate groups. In actuality, all participants answered questions about international corporations.

Scapegoating measure. The degree to which participants blamed and sought to punish international corporations for their role in climate change was measured by having participants complete the same scapegoating measure used in Study 1, with the exception that the five items referred to international corporations rather than oil companies ($\alpha = .88$).

Results

Scapegoating. We predicted that participants primed to view climate change as due to their own group's harmful actions (value threat condition) and those primed to view climate change as due to unknown causes (control threat condition) would show higher levels of scapegoating than participants primed to view climate change as due to an outgroup's harmful actions (no-threat condition). Furthermore, we predicted that the effects of value threat and control threat would be attenuated, respectively, by affirmations of moral value and personal control. To test these predictions, we submitted scapegoating scores to a 3 (threat condition: value threat vs. control threat vs. no threat) \times 2 (affirmation: moral value vs. personal control) between-subjects ANOVA. We obtained the predicted two-way interaction, $F(2, 55) = 10.46, p < .001, \eta^2 = .27$.

Supporting predictions, pairwise comparisons and the pattern of means depicted in Figure 3 revealed that, among participants who were not given the opportunity to affirm their moral value (i.e., who affirmed their personal control instead), those in the value threat condition exhibited higher levels of scapegoating ($M = 4.15, SD = 0.66$) than participants in both the control threat condition ($M = 2.92, SD = 0.72$), $F(1, 55) = 10.63, p < .001$, and the no-threat condition ($M = 3.38, SD = 1.22$), $F(1, 55) = 8.46, p = .03$. Also as predicted, among participants who were not given an opportunity to affirm their personal control (i.e., who affirmed their personal moral value), those in the control threat condition

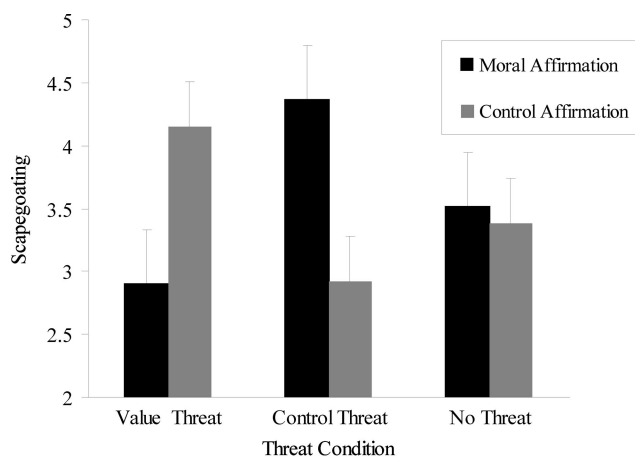


Figure 3. Scapegoating as a function of threat condition (climate change attributed to ingroup [value threat], unknown causes [control threat], or an outgroup [no threat]) and affirmation type (Study 2). Higher scores indicate higher attributions of blame and greater desire to punish international corporations for the negative effects of climate change. Scale ranges from 1 to 6. Error bars represent standard errors.

exhibited higher levels of scapegoating ($M = 4.37, SD = 0.62$) than participants in both the value threat condition ($M = 2.90, SD = 0.66$), $F(1, 55) = 12.49, p < .001$, and the no-threat condition ($M = 3.52, SD = 0.66$), $F(1, 55) = 4.23, p = .04$.

Also supporting predictions, within the value threat condition, participants who affirmed their moral value following the threat induction exhibited lower levels of scapegoating than those who affirmed their personal control, $F(1, 55) = 9.66, p = .003$. Similarly, within the control threat condition, participants who affirmed personal control following the threat induction exhibited lower levels of scapegoating than participants who affirmed their moral value, $F(1, 55) = 11.18, p = .001$. Affirmation condition had no effect on scapegoating level among participants in the no-threat condition ($F < 1.00, p = .71$).

Discussion

When confronted with their ingroup's culpability for climate change, participants showed an increased tendency to scapegoat international corporations, and this effect was eliminated if they had an opportunity to affirm their moral value in an unrelated domain, but not if they had an opportunity to affirm their personal control. Analogously, when participants were confronted with the causal indeterminacy of climate change, they showed an increased tendency to scapegoat international corporations, and this effect was eliminated if they had an opportunity to affirm their personal control, but not if they had an opportunity to affirm their moral value. These results support our broad theoretical claim that scapegoating can represent a strategy for restoring one's perceived moral value or perceived personal control, depending on whether a particular negative outcome is framed in a way that threatens either of these self-perceptions. The fact that the salience of the negative impact of climate change was equivalent across conditions helps to rule out the possibility that the mere salience of harmful environmental conditions accounts for our primary scapegoating effects.

In conjunction with the separate indirect effects reported in Study 1, the threat-specific moderation effects obtained in Study 2 highlight the independence of our proposed motivational paths to scapegoating. Simultaneously, they provide converging evidence to suggest that the effects of our threat conditions in Study 1 did in fact occur through elevated feelings of guilt or reduced perceptions of personal control. As discussed by Spencer, Zanna, and Fong (2005), correlational indirect effects designs in which both proposed mediators and outcomes are measured rather than manipulated (as was the case for the present Study 1) do not yield conclusive evidence regarding mediation. However, by directly manipulating in Study 2 our key constructs (feelings related to moral value and perceptions of control) that were measured as mediators in Study 1, we were able to establish more direct causal evidence to suggest that value threats and control threats increase scapegoating via increased guilt and reduced personal control, respectively.

Study 3

In Studies 1 and 2, we examined the factors that influence scapegoating behavior. In Study 3, we built on these studies by examining the downstream consequences of scapegoating. On the

basis of our dual-motive model, we hypothesized that, depending on whether climate change was framed as threatening one's moral value or perceived control, scapegoating should have differential effects on self-perceptions and behavioral intentions. Focusing on self-perceptions, we hypothesized that when climate change was framed in a way that makes participants feel guilty for their own actions, providing them with the opportunity to attribute blame to a scapegoat would reduce feelings of personal guilt. Also, in line with the findings reported by Sullivan et al. (2010), we hypothesized that when climate change was framed in a causally indeterminate way threatening perceived personal control in the world, the opportunity to scapegoat would bolster perceptions of general personal control over one's life. We did not expect this causal indeterminacy framing of climate change to influence feelings of guilt, however, because there is no reason to expect that participants would interpret this framing as implicating them personally in contributing to climate change.

Because our model portrays scapegoating along the control maintenance path as a strategy for maintaining general perceived personal control in the face of threatening outcomes that seem otherwise difficult to control, we sought to advance beyond Study 1 by measuring personal control in a way that captures a general sense of personal efficacy over one's life. Specifically, in Study 3 we assessed perceptions of general personal control, rather than perceptions of control or responsibility specifically in relation to the relevant negative outcome (in this case, climate change). Nevertheless, we recognized the possibility that this measure might also be sensitive to variations in participants' perceptions of their responsibility over climate change specifically, particularly in the value threat condition where participants are told they bear responsibility for climate change. As mentioned, past research and theory suggest that feelings of personal guilt are linked to perceived personal responsibility for a given negative outcome (e.g., Tangney, 1993). Thus, we allowed for the possibility that, in the value threat condition, the opportunity to blame a scapegoat would not only decrease feelings of personal guilt over climate change but also decrease participants' perceptions of general personal control. To clarify, we believe that there is a useful distinction between perceived personal control, defined broadly as a global sense that one has efficacy over one's life, and perceived personal control, defined more specifically as a sense of personal responsibility over a particular negative outcome. In Study 3, we measured the former type of perceived personal control because our primary goal was to test our model-derived hypothesis that blaming a scapegoat for an otherwise inexplicable negative outcome will bolster people's general sense that they have efficacy over their lives. At the same time, we allow for the possibility that this measure captures specific perceptions of responsibility over climate change; thus, insofar as value-threatened participants given the opportunity to scapegoat experience decreased guilt over climate change, and decreased guilt corresponds to decreased responsibility perceptions, it is possible that these participants will also report decreased perceived personal control. We make this prediction tentatively because we believe that a proper test of decreased responsibility perceptions corresponding to decrease guilt should use a more direct measure of perceived personal responsibility over the relevant negative outcome, rather than perceptions of general personal control.

Focusing on behavioral intentions, we hypothesized that, insofar as increased feelings of guilt for illegitimate harm motivate reparative action (e.g., Amodio et al., 2007; Ketelaar & Au, 2003; Nelissen et al., 2007), participants made to feel responsible for climate change, but then presented with an opportunity to scapegoat, would be less willing to engage in environmental advocacy. We also predicted that this effect would occur indirectly through reduced feelings of personal guilt.

To test these hypotheses, we again manipulated threat by framing climate change as caused by either the harmful actions of participants' ingroup (value threat) or unknown sources (control threat). Because the focus of Study 3 was on differentiating between the downstream consequences of scapegoating as a function of value threat versus control threat, rather than on scapegoating itself as an outcome, we did not include an additional no-threat comparison condition as in Studies 1 and 2.

We manipulated opportunity to scapegoat by providing all participants with a target outgroup to blame for climate change, but varying whether or not that group represented a viable scapegoating target. As discussed in the introduction, Glick (2005) argued that a social group can viably serve as a scapegoat only when that group is perceived as sufficiently powerful and malevolent to have realistically contributed to the negative outcome or event requiring explanation (in this case, climate change). Accordingly, we presented participants with the opportunity to blame either oil companies (a viable scapegoat target) or the Amish (a nonviable scapegoat target) for climate change. We subsequently assessed participants' feelings of personal guilt for the negative effects of climate change, their perceptions of general personal control, and their willingness to take action to stop climate change.

It is worth noting that Glick's (2005) notion of viability contrasts with earlier accounts of scapegoating, which propose that weak and vulnerable groups, as opposed to powerful groups, tend to be scapegoated (e.g., Allport, 1954/1979). In line with Glick's analysis of viability, we hypothesized that, insofar as the Amish are perceived as lacking the power and influence necessary to be responsible for climate change, blaming the Amish should fail as an effective means of either reducing guilt or reasserting control. Alternatively, if earlier theories of scapegoating are correct, we would expect the Amish to be readily scapegoated.

Past research has shown that individual differences can be important determinants of individuals' attitudes toward climate change and related environmental conditions. For example, political orientation and general environmental concern have been found to be strong predictors of individuals' belief in climate change and support for environmental advocacy (e.g., Krosnick, Holbrook, & Visser, 2000; Schuldt, Konrath, Schwarz, 2011). On the basis of these findings, we sought to advance beyond our first two studies by measuring and statistically controlling for these variables in Study 3 in order to isolate the unique effects of our experimental manipulations.

Method

Sixty-four undergraduates (32 women; ages 18–25) from a midwestern university participated in partial fulfillment of a course requirement. The cover story was similar to that used in Study 2. Participants were randomly assigned to conditions in a 2 (threat condition: value threat vs. control threat) \times 2 (scapegoat target:

viable vs. nonviable) between-subjects factorial design. Effects on a number of dependent variables, discussed shortly, were examined.

Individual differences. Prior to any experimental manipulations, participants first responded to a single-item measure assessing their political orientation (1 = *very conservative*, 7 = *very liberal*; $M_{\text{grand}} = 4.63$, $SD = 1.25$) and a single-item measure assessing their preexisting belief in the importance of environmental responsibility (“How important is it for people to do everything they can to minimize their impact on the environment?”; 1 = *not at all important*, 5 = *very important*; $M_{\text{grand}} = 4.11$, $SD = 0.76$). Scores on these measures were used as covariates for all analyses.

Threat manipulation. Participants assigned to the value threat condition read the same article used in Study 2 that framed climate change as due primarily to the harmful actions of young adults (the participants’ ingroup). Participants assigned to the control threat condition read the article from Study 2 that framed climate change as due to unknown causes.

Scapegoat target manipulation. As in Study 2, participants were then introduced to an ostensibly unrelated study in which they would answer questions about a group selected at random by the computer. Unlike Study 2, though, here participants were in fact randomly presented with one of two target outgroups. Participants in the *viable scapegoat* condition were presented with oil companies, whereas participants in the *nonviable scapegoat* condition were presented with the Amish. To test our assumption that participants would perceive oil companies as a more viable source of responsibility for climate change than the Amish, we had participants rate their level of agreement with the statement “How much does this group contribute to climate change?” on a 6-point scale (1 = *not at all*, 6 = *a very large amount*).

Guilt. Next, participants completed a series of filler surveys, embedded in which was a modified single-item measure of personal guilt, selected from the larger guilt scale originally used by Ferguson (2009) to assess guilt for contributing to global warming. Participants were asked to rate their level of agreement with the statement “I feel guilty for my contributions to global warming” using a 6-point scale (1 = *very strongly disagree*, 6 = *very strongly agree*). A single-item measure of guilt was used in an attempt to shorten the study completion time, and this particular item was chosen because it is the most face-valid of the original scale items and had the strongest loading on the four-item composite in Study 1.

Personal control. Participants’ perceptions that they have control over their lives were measured by asking them to respond to the same single-item measure that Sullivan et al. (2010) used to measure perceived personal control: “In general, how much control do you feel you have over what happens in your life?” Responses to this item were made along a 6-point scale (1 = *not at all*, 6 = *very much*). The guilt and personal control items were randomized in order of presentation.

Environmental advocacy measure. The final measure was a shortened version of Ferguson’s (2009) Environmental Advocacy scale. Participants responded to four items assessing their willingness to engage in behaviors intended to reduce the impact of global warming (e.g., “In order to reduce the impact of global warming, to what extent would you be willing to give a short presentation in an elementary school about global warming and how to reduce it?”). Responses were made on a 6-point scale (1 = *not at all*

willing, 6 = *extremely willing*) and were averaged to form composite environmental advocacy scores ($\alpha = .80$).

Results

Scapegoating. We first tested our assumption that participants would perceive oil companies as a more viable scapegoat target for climate change than the Amish. We submitted ratings of the target group’s contribution to climate change to a 2 (threat condition: value threat vs. control threat) \times 2 (scapegoat target: oil companies vs. Amish) between-subjects ANOVA. This analysis yielded the predicted main effect for target such that participants rated oil companies as contributing significantly more to climate change ($M = 4.78$, $SD = 1.06$) compared with the Amish ($M = 1.93$, $SD = 0.83$), $F(1, 58) = 132.64$, $p < .001$. No other effects reached significance ($F_s < 1.00$, $p_s > .59$).

Guilt. Next, we tested our prediction that, when climate change was framed as the result of the harmful actions of their ingroup, participants would experience increased guilt, but this effect would be attenuated if participants additionally had the opportunity to attribute blame to a viable scapegoat, but not to a nonviable scapegoat. Submitting guilt scores to a Threat Condition \times Scapegoat Target ANOVA returned a significant interaction, $F(1, 58) = 11.49$, $p = .001$, $\eta^2 = .17$. Supporting predictions, pairwise comparisons and the pattern of means depicted in Figure 4 revealed that, among participants given the opportunity to blame a nonviable scapegoat, those in the value threat (i.e., ingroup responsible) condition reported greater feelings of guilt ($M = 4.25$, $SD = 1.32$) than those in the control threat (i.e., unknown cause) condition ($M = 2.95$, $SD = 1.32$), $F(1, 58) = 7.14$, $p = .01$. However, participants in the value threat condition who were given an opportunity to blame a viable scapegoat reported feeling less guilt ($M = 3.17$, $SD = 1.33$) than those in both the value threat/nonviable scapegoat condition, $F(1, 58) = 5.24$, $p = .03$, and the control threat/viable scapegoat condition ($M = 4.17$, $SD = 1.48$), $F(1, 58) = 4.94$, $p = .03$.

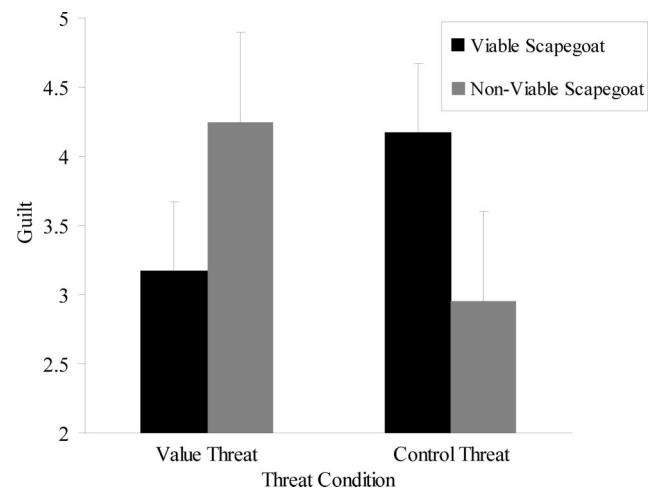


Figure 4. Personal guilt as a function of threat condition and viability of scapegoat target (Study 3). Higher scores indicate greater feelings of guilt for one’s own contributions to climate change. Scale ranges from 1 to 6. Error bars represent standard errors.

Unexpectedly, participants in the control threat condition who were exposed to a viable scapegoat reported more guilt than participants in the control threat/nonviable scapegoat condition, $F(1, 58) = 6.73, p = .01$. We return to this finding in the Discussion section.

Personal control. Next, we tested our prediction that, when climate change was framed as the result of unknown causes, exposure to a viable scapegoat would increase perceived personal control, whereas exposure to a nonviable scapegoat would not have this effect. Submitting perceived personal control scores to the same two-way ANOVA returned a significant interaction, $F(1, 58) = 10.84, p = .001, \eta^2 = .15$. Supporting predictions, pairwise comparisons and the pattern of means depicted in Figure 5 revealed that, among participants exposed to a viable scapegoat, those in the control threat condition reported having more control over their lives ($M = 4.81, SD = 0.66$) than participants in both the control threat/nonviable scapegoat condition ($M = 4.11, SD = 1.23$), $F(1, 58) = 4.04, p = .05$, and the value threat/viable scapegoat condition, ($M = 3.94, SD = 0.90$), $F(1, 58) = 6.31, p = .02$.

We then tested our tentative prediction that participants in the value threat condition who were exposed to a viable scapegoat would report, in addition to less guilt (as reported above), less personal control over their lives compared with those exposed to a nonviable scapegoat. Among participants in the value threat condition, perceived personal control was indeed lower after exposure to a viable scapegoat than after exposure to a nonviable scapegoat ($M = 4.92, SD = 1.04$), $F(1, 58) = 7.16, p = .01$.

Environmental advocacy. We also tested the prediction that participants exposed to a value-threatening framing of climate change would be motivated to make reparative actions, unless they were first given the opportunity to attribute blame to a viable scapegoat. Performing the same two-way ANOVA on environmental advocacy scores yielded a significant interaction, $F(1, 58) = 10.14, p = .001, \eta^2 = .15$. Pairwise comparisons and the pattern of means depicted in Figure 6 revealed that, as expected, participants in the value threat condition who were exposed to a viable scapegoat reported lower environmental advocacy scores

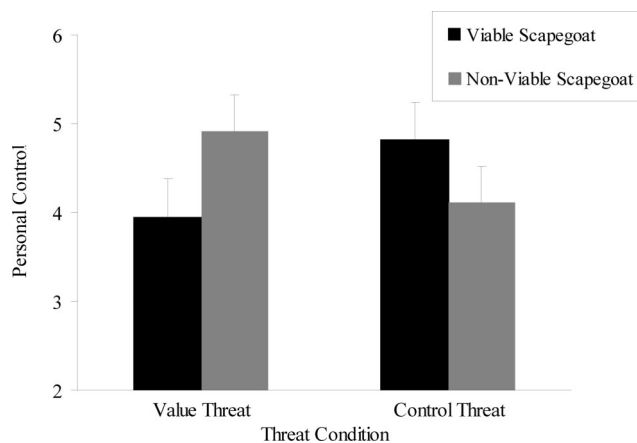


Figure 5. Perceived personal control as a function of threat condition and viability of scapegoat target (Study 3). Higher scores indicate greater perceived control over one's life in general. Scale ranges from 1 to 6. Error bars represent standard errors.

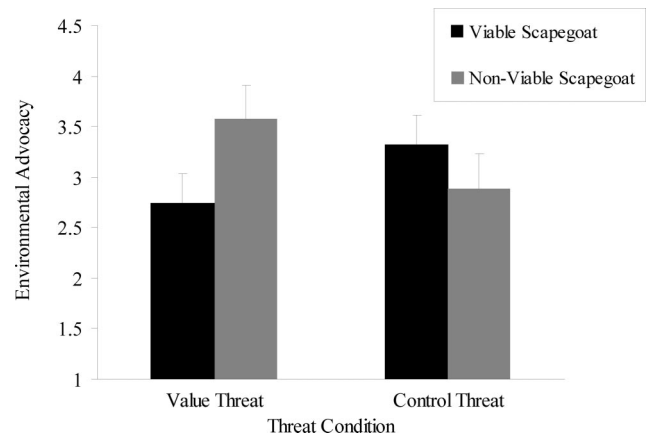


Figure 6. Environmental advocacy as a function threat condition and viability of scapegoat target (Study 3). Higher scores indicate greater willingness to participate in environmental advocacy to help stop climate change. Scale ranges from 1 to 6. Error bars represent standard errors.

($M = 2.74, SD = 0.75$) compared with participants in the value threat/nonviable scapegoat condition ($M = 3.57, SD = 0.75$), $F(1, 58) = 9.17, p < .004$, and those in the control threat/viable scapegoat condition ($M = 3.32, SD = 0.73$), $F(1, 58) = 4.92, p = .04$.

Also, participants in the value threat condition presented with a nonviable scapegoat reported higher environmental advocacy scores than participants in the control threat/nonviable scapegoat condition, ($M = 2.89, SD = 0.99$), $F(1, 58) = 5.72, p = .03$. For participants in the control threat condition, mean environmental advocacy scores did not significantly differ between the two scapegoat target conditions ($F = 2.42, p = .13$).

Indirect effect of Threat Condition \times Scapegoat Target on environmental advocacy by guilt. Using the bootstrapping procedure and corresponding SPSS macro of Preacher and Hayes (2008), we regressed environmental advocacy scores onto the interaction of threat condition (coded: value threat = 1/control threat = 0) and scapegoat target (coded: nonviable = 0/viable = 1) with self-reported guilt entered as the proposed mediator and our main effects as covariates. Five-thousand bootstrap resamples were performed. The 95% confidence interval obtained for the indirect effects of the Threat Condition \times Scapegoat Target interaction on environmental advocacy scores through guilt did not contain zero [$-1.01, -.03$]. These results are consistent with our mediated moderation hypothesis that the decrease in self-reported intentions to participate in environmental advocacy among participants in the value threat/viable scapegoat condition is partially mediated by their corresponding decrease in feelings of guilt (see Figure 7 for a graphical depiction of the mediation model).

Discussion

The presence of a viable scapegoat capable of bearing blame for climate change differentially affected participants' self-perceptions and behavioral intentions as a function of the causal framing of climate change. When climate change was framed in a value-threatening manner as the result of the ingroup's harmful actions, exposure to a viable scapegoat reduced participants' feel-

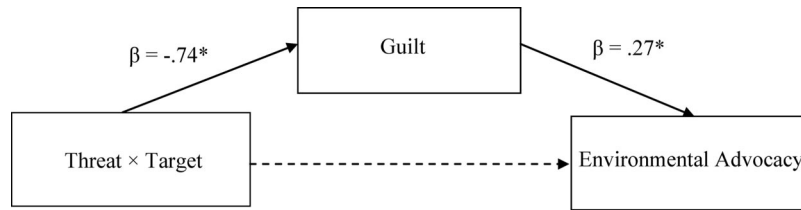


Figure 7. Indirect effect of Threat Condition \times Scapegoat Target interaction on environmental advocacy through feelings of personal guilt (Study 3). All path coefficients represent standardized regression weights. The direct effect coefficient represents the effect of the interaction on the dependent variable after controlling for the main effects, the effect of the proposed mediator, political orientation, and preexisting feelings of environmental responsibility. Total adjusted R^2 for the model = .28, $F(6, 57) = 5.07$, $p < .001$. Total effect: $\beta = -.66^*$. Direct effect: $\beta = -.46^*$. * $p < .05$.

ings of personal guilt. In contrast, when climate change was framed in a control-threatening manner as the result of unknown causes, exposure to a viable scapegoat bolstered participants' perceptions of personal control. These findings lend further support to our broad claim that scapegoating behavior can be driven by two distinct motives—to maintain feelings of moral value or perceptions of personal control—depending on the particular type of threat posed by a particular negative outcome. The findings of Study 3 also support Glick's (2005) assertion about the importance of a scapegoat target's perceived viability and contradict earlier accounts of scapegoating, which suggested that groups perceived as weak and vulnerable are preferred for the purposes of displacing blame.

We additionally found that value-threatened participants exposed to a viable (vs. a nonviable) scapegoat reported lower levels of perceived personal control in addition to lower levels of guilt. This suggests that our measure of general personal control, which we designed to specifically assess the control maintenance path of our model, also partly captured perceived causal responsibility for climate change. This is consistent with the idea that when a person is made to feel responsible for causing climate change, scapegoating involves relinquishing specific feelings of agency connected to climate change in exchange for simultaneously reducing aversive feelings of guilt. This relinquishing of responsibility seems to have influenced broader perceptions of control among the value-threatened participants exposed to a scapegoat. Insofar as our control measure may have partly reflected feelings of specific responsibility for climate change, the similar reduction in guilt and control in the value threat condition is consistent with previous research showing a positive association between guilt and personal responsibility for a specific negative outcome (e.g., Tangney, 1993). Nevertheless, correlational analyses yielded no significant association between participants' personal feelings of guilt for climate change and perceptions of personal control across any of the conditions ($r_s < .19$, $p_s > .13$). These null results may be due to the fact that whereas guilt was measured with an item that referred specifically to the context of climate change, perceived control was measured with an item designed to capture perceptions of general personal control beyond the climate change context. In support of this explanation, when in Study 1 we measured both guilt and control perceptions with specific reference to participants' responsibility for harmful environmental conditions, we indeed observed a significant positive correlation between guilt and personal control ($r = .23$, $p = .01$).

Returning to Study 3's results, one unexpected finding was that, within the control threat condition, participants exposed to oil companies reported significantly higher guilt for their personal contribution to climate change compared with participants exposed to the Amish. One possible explanation for this effect is that participants who were initially made to feel uncertain about the cause of climate change may have come to associate some of their own behaviors (e.g., driving cars, using electricity) with the harmful actions of oil companies when given the chance to attribute blame to such companies. In turn, this may have led them to feel somewhat responsible for causing climate change and thus to experience increased feelings of personal guilt. It is also possible that participants may have felt guilty for failing to act when there was an identified scapegoat target to act against.

Study 3 also tested the downstream consequences of scapegoating on participants' reported willingness to engage in reparative behaviors. Consistent with our predictions, participants made to feel responsible for harmful climate change, and subsequently exposed to a nonviable scapegoat, exhibited an increase in their willingness to become environmental advocates (consistent with prior research; e.g., Ferguson & Branscombe, 2010). If, however, this value-threatening framing was followed by an opportunity to blame a viable scapegoat, participants reported significantly less willingness to engage in environmental advocacy. Furthermore, results were consistent with our mediated moderation hypothesis suggesting that these effects are mediated by participants' feelings of guilt about their own personal contribution to climate change. These results provide initial evidence that scapegoating can undermine individuals' willingness to help stop a harmful outcome for which they are at least partially responsible.

General Discussion

Building on and integrating two influential theoretical accounts of scapegoating, we proposed a model that identifies two distinct motives behind scapegoating at the level of the individual: the desire to maintain feelings of personal moral value and the desire to maintain perceptions of personal control over one's environment. Because each motive represents an independent path to scapegoating, the compensatory function served by scapegoating is dependent on whether the precipitating negative outcome primarily threatens the individual's felt moral value or perceived personal control. Specifically, although perceived moral culpability for a negative outcome motivates scapegoating to minimize elevated

feelings of guilt, the perceived causal indeterminacy of a negative outcome motivates scapegoating to provide an explanation that restores perceived personal control. We provided empirical support for this model in the present studies by testing whether scapegoating behavior is increased by theoretically specified threat inductions, is mediated and moderated by theoretically specified self-perceptions, and produces divergent downstream consequences on self-perceptions and behavioral intentions depending on which path is activated.

Study 1 showed that participants primed to view the hazardous consequences of environmental destruction as the result of their own harmful actions (value threat), and participants primed to view the hazardous consequences of environmental destruction as the result of unknown causes (control threat), were more likely to blame and punish oil companies for the hazardous consequences of environmental destruction. Moreover, results were consistent with the mediational hypothesis that scapegoating in response to a value-threatening framing of environmental destruction occurs indirectly through increased feelings of personal guilt, whereas scapegoating in response to a control-threatening framing of environmental destruction occurs indirectly through decreased perceptions of personal control.

Study 2 was designed to build on Study 1 by using experimental manipulations that targeted the same proposed mediating variables that were measured in the prior study. Study 2 conceptually replicated the basic scapegoating effect and further highlighted the independence of the two motivational paths to scapegoating by showing differential moderation effects: Scapegoating of international corporations in response to a value-threatening framing of catastrophic climate change was eliminated by an affirmation of one's own moral value, but not by an affirmation of personal control, whereas scapegoating in response to a control-threatening framing of climate change was eliminated by an affirmation of personal control, but not by an affirmation of moral value.

Complementing the findings from Studies 1 and 2, Study 3 illustrated the divergent effects of scapegoating along the value- and control-maintenance paths on participants' self-perceptions and behavioral intentions. Although the opportunity to scapegoat following a moral value threat effectively reduced feelings of personal guilt, the opportunity to scapegoat following a control threat effectively bolstered perceptions of personal control. In addition, some evidence was found for the hypothesized relationship between feelings of guilt and perceived control over a negative outcome along the value-maintenance path to scapegoating. Specifically, the fact that value-threatened participants exhibited lower perceived control after exposure to a viable scapegoat supports our claim that scapegoating in response to a value threat represents an attempt to minimize guilt by transferring one's own responsibility for a negative outcome to a scapegoat target. However, the absence of a direct measure of perceived responsibility for climate change in this study, the lack of a significant correlation between guilt and control, and the unexpected increase in guilt among control-threatened participants exposed to a viable scapegoat suggests that any conclusions about the interplay between control and guilt in scapegoating processes remain tentative.

Finally, in line with predictions, participants in Study 3 who focused on their ingroup's moral culpability for climate change, and who subsequently encountered a viable scapegoat, reported decreased behavioral intentions to engage in environmental advo-

cacy. An indirect effects analysis yielded evidence consistent with our mediational hypothesis that this effect was partially mediated by decreased feelings of personal guilt for climate change.

Connections With Past Research

By integrating the present studies with previous theory and research, we are able to see how the present findings relate to contentious issues in the literature and how they prompt new lines of research and inquiry. For instance, there has been some disagreement about whether scapegoating should be investigated at the level of the individual or the level of the collective. In line with Allport (1948, 1954/1979), the present studies approached scapegoating at the level of the individual's motives. All three studies provide evidence that the *individual's* tendency to blame and punish a (collective) scapegoat target for a negative outcome is motivated by the *individual's* own concerns for personal value or control. However, social identity theorists argue that as a group-level phenomenon, scapegoating should be studied exclusively at the level of the group (e.g., Billig, 1976; Tajfel, 1981). Consistent with this idea, some theorists have focused on the role scapegoating plays in enhancing or maintaining ingroup cohesion in conditions of social instability (Cantril, 1941; Silverstein, 1992).

Of course, recognizing scapegoating as a group-level response to a shared misfortune does not imply an absence of individual-level motives, nor does a focus on individual-level motives necessarily ignore the shared social context in which scapegoating arises. Although Glick (2005) proposes that scapegoating is a collective process that manifests as a group-level ideology, he recognizes that individual-level motives can still play a role in determining how situational threats may lead individuals to show increased antagonism against a scapegoat target. The present research recognizes the role of group-level ideologies in providing "viable" scapegoat targets for collectively experienced negative events, but focuses on how individuals can be drawn to scapegoat ideologies by the perceived threats such events pose to individual-level needs for moral value and personal control. It thus bears conceptual similarity to recent work by Kruglanski, Chen, Dechesne, Fisman, and Orehek (2009) and Landau, Rothschild, and Sullivan (2011) on the psychology of terrorist and extremist behavior. These perspectives suggest that individuals who are threatened by the potential loss of personal significance may be attracted to extremist group-level ideologies that encourage them to aggress against scapegoated others. The present work is also consistent with work in the field of social identity theory, which suggests that threats to one's ingroup can, under certain circumstances, be experienced as threats to the self (Hogg, 2006). All these approaches imply that individual- and group-level perspectives on scapegoating offer complementary rather than conflicting accounts of the phenomenon.

Another contentious issue in the previous literature concerns the exact process or mechanism through which scapegoating occurs. For example, Allport (1948, 1954/1979) claimed that scapegoating operates by way of defensive projection; others (e.g., Wills, 1981) have argued that this is not the case. Rather than taking a side in this debate, the present research focused instead on how different motivations can lead to scapegoating behavior. As such, the results from the present studies support Allport's claim that scapegoating can represent a strategy for minimizing guilt feelings and bolster-

ing self-esteem, but these results do not speak to the issue of whether scapegoating necessarily involves projection. It remains possible that scapegoating following a moral value threat operates by way of downward social comparison instead (Wills, 1981). Further research is required to determine whether scapegoating for moral value maintenance is best conceptualized via a hydraulic model of projecting one's guilt onto a scapegoat target, or a nonhydraulic model of amplifying the scapegoat target's guilt to maintain a relatively guiltless position.

Our results concerning the control maintenance function of scapegoating are also consistent with previous research on enmity (Sullivan et al., 2010). However, the present studies go beyond the findings of Sullivan and colleagues by showing evidence consistent with the hypothesis that the tendency to focalize blame on a scapegoat target following a control-threatening framing of a negative outcome is mediated by decreased perceptions of personal control over that particular event, and can be eliminated by alternate means of bolstering personal control. These findings provide more direct evidence for the role played by an individual's underlying motivation to maintain perceptions of personal control when confronted with otherwise inexplicable negative outcomes.

In the past, research on scapegoating has been hampered by theories that relied on either overly ambiguous and undifferentiated concepts, such as "frustration," or a singular motive or process that was unable to explain scapegoating behavior across different contexts. In contrast, the present dual-motive model of scapegoating overcomes these limitations by presenting two clearly delineated motivational paths. By resisting the urge to reduce one motive to the other or seek a common distal motive, the present model allows us to see how the same behavioral phenomenon can occur in response to different threats, be eliminated by different intervening variables, and lead to different downstream consequences. Although we do not deny the possibility that other individual-level motives may influence the individual's likelihood of engaging in scapegoating behavior, we believe that the present research provides a strong case that the motives to maintain perceived personal moral value and personal control underlie independent routes to scapegoating. Ultimately, the proposed dual-motive model encourages further empirical investigation of the individual-level and group-level motives behind scapegoating, and more generally illustrates the strengths of considering a multi-motive approach to understanding a variety of human behaviors.

Practical Implications

Beyond its theoretical contributions, the present research offers important insights into a ubiquitous phenomenon shown to have serious real-world consequences. Most importantly, the present studies offer potential avenues for reducing individuals' scapegoating behavior. In particular, Study 2 found that participants' tendency to scapegoat in response to a negative outcome framed as a threat to personal value or personal control threat was eliminated by a corresponding affirmation of personal value or personal control. These findings suggest that providing alternate means of bolstering threatened feelings of moral value or personal control in the face of aversive conditions or negative events may reduce the likelihood of scapegoating as a compensatory threat response, but only when these affirmations are appropriate to the threat. These findings highlight the fact that in order to determine the proper

ameliorative action for scapegoating behavior, one must first identify the type of precipitating threat posed by a given negative event.

The results of Study 3 also have implications for how scapegoating can affect people's willingness to resolve a negative outcome. In the context of devastating climate change and the hazardous effects of environmental destruction, the issue of how to motivate individuals to make different lifestyle choices is a topic of major concern. Previous research has suggested that reminding participants' of their ingroup's responsibility for the harmful effects of climate change increases feelings of guilt and motivates individuals to report a greater willingness to engage in proenvironmental behaviors (Ferguson & Branscombe, 2010). However, in Study 3, this effect was reversed when participants were able to blame a viable scapegoat, which reduced feelings of guilt and in turn their reported willingness to engage in environmental advocacy. These results suggest that although highlighting individuals' moral culpability for environmental destruction can motivate mitigating behavior, this strategy can backfire when a viable scapegoat is available. Thus, the strategy of inducing guilt to motivate reparative behaviors may have the unintended effect of increasing scapegoating and reducing individuals' willingness to take such corrective actions.

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