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Abstract

This study utilized the context of Hurricane Katrina to examine changes in justice beliefs. We suggest that racism claims being embedded within an emotionally involving context and covered by the mainstream media facilitated openness to the idea that the American social system is not entirely just. We hypothesized that exposure to images of the disaster *and* racism explanations would lead Whites who initially perceived the American social system as just to shift their beliefs. Furthermore, lower justice beliefs after exposure to disaster images would be associated with greater perceptions of similarity with victims and less preference for the racial ingroup. Results were consistent with these hypotheses. Thus, under some circumstances, disconfirming evidence can produce belief change.

Keywords

Hurricane Katrina, justice belief, racism claims

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Hurricane Katrina hit the Gulf Coast of the United States in August 2005 and caused extensive damage to New Orleans and surrounding areas. After the hurricane hit, a man-made disaster also occurred; the government's response was slow, poorly executed, and woefully inadequate. Now, years after the hurricane, the recovery and restoration efforts have made far less progress than expected.

The disastrous situation in New Orleans may have been "created by lousy engineering, misplaced priorities, and pork-barrel politics" (Grunwald, 2007). But from the early days after

the hurricane, racism was an explanation that was offered and discussed by many. The Reverend Jesse Jackson suggested that the tragic response was due to "a historical indifference to the pain

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of poor people and black people in the United States” (Simpson, 2005). A poll conducted by the Pew Research Center (2005) several weeks after the hurricane demonstrated that 67% of Black Americans believed the government’s response would have been faster if the majority of victims were White. During a fundraiser for victims of Hurricane Katrina, Kanye West stated this explanation simply and straightforwardly: “George Bush doesn’t care about Black people.” Whether or not one agreed with these claims, the events surrounding Hurricane Katrina brought issues of inequality and injustice to the forefront of America’s public consciousness.

Racism claims are at odds with the belief that America is a fair and just society in which all citizens, regardless of race, have equal opportunities for advancement and an equal chance in life (Kluegel & Smith, 1986; Plaut, Markus, & Lachman, 2002). We utilized the context of Hurricane Katrina to examine how threats to deeply held beliefs, particularly about social justice, were shaped by claims of racism that occurred after the storm. We examine whether, despite being a threat to justice beliefs, claims of racism made within the context of Hurricane Katrina and its aftermath could lead White Americans to become more open to the possibility that ideals guiding justice beliefs have not yet been fully realized in the American social system. Understanding factors that promote changes in justice beliefs is particularly understudied as most scholarship addresses how people defend threatened beliefs rather than accommodate this information into their belief system. In the current investigation we examine this important process of adjusting one’s justice beliefs. Based on previous research and theory, we suggest that the commonly observed defensiveness in response to belief threat can be minimized when motivation and ability to defend one’s beliefs are low and when the source of the threatening information is not easily dismissed. In this particular situation, we argue that the emotionality of the news coverage combined with broad coverage of issues of racism by the mainstream media led to greater acceptance of threatening information.

Beliefs about social justice

The dominant belief system in the United States suggests that America is essentially a just and fair society. It includes specific beliefs, such as the Protestant Work Ethic (PWE), which is the idea that hard work generally leads to success (Katz & Hass, 1988). It also includes the belief in individual mobility or status permeability, the idea that any individual can get ahead in the American social system (Major et al., 2002). Endorsement of justice beliefs serves many important functions and helps to explain why many Americans endorse them (Kluegel & Smith, 1986). These beliefs provide people with a meaningful understanding of social reality and describe cultural norms for achieving value and self-worth (Greenberg, Solomon, & Pyszczynski, 1997; Lerner, 1980; Major, Kaiser, O’Brien, & McCoy, 2007). In doing so, they reduce uncertainty and promote successful engagement with one’s social world (e.g., Fiske, 2004). Endorsing these beliefs also justifies the existing social system (Jost & Banaji, 1994) because they imply that differences in outcomes (e.g., status, income) between individuals and groups result from differences in inputs or effort. Although there is overall widespread endorsement of this belief system, not everyone within the society endorses all aspects to the same extent. Specifically, people who belong to high-status groups that benefit from the current social system are more likely to endorse these beliefs than people who belong to low-status groups that are disadvantaged (Crocker, Luhtanen, Broadnax, & Blaine, 1999; Kluegel & Smith, 1986; Levy, West, & Ramirez, 2005).

Claims of racism threaten the idea that the social system is just and that all individuals, regardless of race, are afforded the same opportunities. These claims suggest that racial group membership, and not simply individual efforts and abilities, affect peoples’ outcomes. In the context of Hurricane Katrina, some people claimed that race affected whether one’s home was saved or lost, and in fact, whether one lived or died.

Responses to belief threats

People attempt to manage threats to their important beliefs by employing a variety of defensive strategies. When circumstances permit, people interpret ambiguous information in a way that is consistent with their previously held beliefs (e.g., Anderson, Lepper, & Ross, 1980; Lord, Ross, & Lepper, 1979). They may also derogate those who present threatening information, to the extent that those who present a threat are not credible, people can justify holding on to their initial beliefs (Kaiser, Dyrenforth, & Hagiwara, 2006). In addition, when threatened, people often turn to similar others who can help to validate their original beliefs about the world (Jost & Hunyady, 2002; McGregor & Marigold, 2003; McGregor, Zanna, Holmes, & Spencer, 2001; Tajfel & Turner, 1986).

Although people frequently use the responses discussed above to deal with belief threats, sometimes, beliefs yield to evidence. Complex and systematic information processing, which requires motivation and ability, is necessary to resolve belief inconsistencies (Chaiken, Giner-Sorrolla, & Chen, 1996; Chaiken & Trope, 1999). Therefore, the presence of factors that reduce motivation and/or ability to engage in the kind of thinking necessary to hold on to one's beliefs in the face of new or inconsistent information should facilitate belief change. For example, defensiveness should be less likely to occur when people are under cognitive load, or cognitive capacity is otherwise diminished. Also, motivation to defend their own beliefs should be lower when people take on the perspective of another and feel concerned about that person's well-being (Batson, 1991; Batson, Chang, Orr, & Rowland, 2002). Indeed, empathetic feelings reduce negative attitudes towards members of stigmatized groups and endorsement of beliefs that contribute to stigmatization (Batson et al., 2002). In addition, whether people accept or reject potentially threatening information depends on who presents the information. People are apt to be more accepting of threatening information if the person presenting it does not appear to be self-interested (Czopp & Monteith, 2003), and if

presented by an ingroup member (Hornsey, Oppes, & Svensson, 2002).

In the context of Hurricane Katrina, there was evidence that beliefs about justice were threatened by claims of racism and under many circumstances people responded by being defensive (see Napier, Mandisodza, Andersen, & Jost, 2006). In the period shortly after the hurricane, White Americans commonly denied that racial injustice affected outcomes in the aftermath of Hurricane Katrina; only 17% of White Americans (compared to the 67% of Black Americans) believed racism was responsible for the slow Katrina disaster response (Pew Research Center, 2005). White Americans were also more likely to place blame for the Katrina disaster response on the victims themselves (Levy, Freitas, Mendoza-Denton, & Kugelmass, 2006), and showed greater attachment to their racial group when exposed to claims that racism affected the Katrina disaster response than when exposed to other explanations (Kaiser, Eccleston, & Hagiwara, 2008).

However, a number of features of the context in which racism claims about Hurricane Katrina were made, may have led people who initially believed in the justice of the social system to change their beliefs. First, these claims were frequently accompanied by gripping and strong images of devastation and human suffering that produced strong emotional reactions, including feelings of empathy. In surveys, most people reported feeling at least somewhat sympathetic toward those left behind in the wake of Hurricane Katrina (Huddy & Feldman, 2006) and generous behavior such as Red Cross donations indicated that this was the case (Avdeyeva, Burgetova, & Welch, 2006). Second, the fact that the news coverage in which racism claims were made tended to be emotion-laden, likely diminished cognitive resources necessary for belief defense; emotionally impactful news has been shown to reduce cognitive resources available to perform other tasks (Lang, Newhagen, & Reeves, 1996). Third, the idea that racism possibly affected the response to Hurricane Katrina was covered extensively by the mainstream media and racism claims were made primarily, but not exclusively, by Black Americans. The fact that the claims

were made not just by African Americans likely led White Americans to take these claims more seriously, process the information more and change their beliefs accordingly; claims made by solely African Americans may be perceived as being driven by self-interest and therefore dismissed (Czopp & Monteith, 2003; Petty, Fleming, Priester, & Feinstein, 2001). In addition, people are more accepting of critical information that possibly threatens the group when the information comes from the ingroup rather than the outgroup (Hornsey et al., 2002). For these reasons, we hypothesized that racism claims made in the context of Hurricane Katrina may have led those who strongly believed in the justice of the American social system to shift their beliefs.

In addition to the theoretical reasons noted above, Levy et al. (2006) offer initial evidence that Hurricane Katrina affected justice beliefs. In data collected prior to Hurricane Katrina, Blacks and Whites did not differ in their endorsement of the general idea that hard work leads to success. But, several weeks after the storm, Blacks were less likely to endorse this belief relative to Whites. Similarly, several weeks after Hurricane Katrina, Levy et al. primed participants with Hurricane Katrina by instructing them to "write down two things that you remember about Hurricane Katrina." After being primed, Blacks were less likely than Whites to endorse this justice belief. Thus, Levy et al.'s research suggests that Blacks changed their beliefs but Whites held firmly to their justice beliefs in the face of Hurricane Katrina.

Some aspects of Levy et al.'s (2006) research may, however, have precluded observing justice belief changes among Whites. First, in the weeks following Hurricane Katrina, Blacks were more likely than Whites to spontaneously associate the disaster with racism (as evidenced by the Pew Research Center [2005] poll, for example). And, when primed with Hurricane Katrina, Blacks may have been more likely than Whites to recall injustice and racism. Thus, the lower likelihood of Whites to change their justice beliefs might have occurred because Whites were thinking about racism less than Blacks. If Whites were explicitly required to consider the role of racism in the

Katrina disaster response, they too may have changed their justice beliefs. Furthermore, shortly after a disaster, people may be reluctant to shift important beliefs as they may still be evaluating the threat. However, distance from an event allows consideration of broader, more abstract representations of the event (Trope & Liberman, 2003). Distance also reduces defensiveness and the emotional intensity of reactions to events (Williams & Bargh, 2008). Thus, with greater temporal distance from Hurricane Katrina, people who typically perceive the system as just may question and experience shifts in their justice beliefs.

Hypotheses

The present investigation examines whether Whites who endorse justice beliefs may, at least temporarily, change those beliefs when considering the Hurricane Katrina disaster response. We hypothesized that when exposed to emotionally involving images of the disaster, direct exposure to racism claims would lead Whites who initially perceived the system as just to lower their endorsement of those beliefs. These individuals would maintain their beliefs when not presented with strong arguments about racial injustice. Among those who were initially low or moderate in endorsement of justice beliefs, exposure to racism claims would not lead to belief change. Further, the less participants perceived the system as just after being exposed to images of the disaster, the more willing they would be to acknowledge that racism played a role in the disaster response. We further hypothesized that, in general, the more participants recognized societal injustice, the more positive emotions they would feel toward those affected by Hurricane Katrina.

Method

Participants and research design

Participation in this study occurred between February and September of 2007, 18–24 months after Hurricane Katrina struck the Gulf Coast. We chose this time period because we suspected that

temporal distance from the storm would be helpful in reducing defensiveness that would otherwise occur in close proximity to the storm (Trope & Liberman, 2003; Williams & Bargh, 2008). Participants were 124 White (57.3% women, median age = 19) undergraduate students at a university in the north-eastern United States. They participated in partial fulfillment of a course requirement or for \$10. The experiment involved one manipulated independent variable (explanation type) and justice beliefs measured continuously, before and after the experimental manipulation.

Pre-testing session

When participants signed up for the study, they were sent a link to an online survey that included the measure of justice beliefs. They were instructed that the survey was to be completed at least 24 hours before coming in to the lab. Participants who came to their scheduled lab appointment without having filled out the survey were asked to reschedule their appointment and to complete the survey before coming to that appointment.

Experimental session

The procedure for this study is similar to that used in our previous research (Kaiser et al., 2008). Small groups of participants were met by a White experimenter who described the study as an examination of how people understand and perceive explanations of events. Further, participants were told that they would watch video clips about Hurricane Katrina and then complete some questionnaires about themselves and their reactions to the disaster. In a private room or a room in which computers were separated by dividers, participants watched video clips on computers with 17-inch monitors and listened using headphones. The study was run using Media Lab software (Jarvis, 2006).

Explanation manipulations

The primary manipulation was the explanation that participants were given for the poor response

to the hurricane. In the key condition, images of the Hurricane Katrina disaster were paired with racism explanations. We included two additional conditions for purposes of comparison. In one of these conditions, participants were given no explanation for the disaster response. In the other comparison condition, explanations for the government response focused on incompetence of governmental agencies and personnel. By including the latter condition, we could assess whether criticism of the government generally affected justice beliefs or whether this is unique to claims that the government was racist.

Participants were randomly assigned to one of the three explanation conditions described above. In the “no explanation condition,” participants watched a five-minute segment of the National Geographic program “Inside Hurricane Katrina.” The program depicted the devastation caused by the storm and the inadequacies of the response. For example, it showed the poor conditions at the Superdome and people stranded on bridges, roads, and rooftops, waiting to be rescued. Participants then watched a three-minute computerized slide show of 96 photos that depicted the suffering of the victims and the physical damage that had been done. Thus, in this condition, participants were reminded of the disaster and consequences that arose because of the inadequate response, but were not provided with explanations for the response.

Participants in the “racism” and “government incompetence” explanation conditions saw additional video footage between the National Geographic program and the slide show. In the “racism” condition, participants watched a six-minute series of videos in which various people, including journalists, politicians (e.g., Representative John Lewis), public figures (Rev. Jesse Jackson) and residents of affected areas claimed that race played a part in the disaster response. In the “government incompetence” condition, six minutes of video depicted various individuals who claimed that the government’s response was due to incompetence and a lack of preparedness. For example, journalists discussed the idea that the Federal Emergency Management Agency (FEMA) was not prepared for the hurricane

because it had shifted its attention from natural disasters to terrorism. New Orleans' mayor, Ray Nagin, was shown discussing how a lack of synchrony between the state and federal government was responsible for the inadequate response. See Kaiser et al. (2008) for more information about these videos.

After the completion of the video and slide show, all participants completed the dependent measures. After completing these measures, participants were completely and carefully debriefed.

Measures

Justice beliefs The measure of justice beliefs was adapted from Levin, Sidanius, Rabinowitz, and Frederico (1998). The belief in the justice of the social system is measured with a cluster of three beliefs: the belief in the Protestant Work Ethic (PWE) (e.g., most people who don't get ahead should not blame the system; they really only have themselves to blame; reverse-scored), perceived system permeability (e.g., America is an open society where all individuals can achieve higher status) and perceived system legitimacy (America is a just society where differences in status between group reflect actual group differences). We included two additional items that assessed PWE (See the Appendix for the complete measure). Items on this measure, (and most others in the study, except where noted) were rated on a scale from 0 (strongly disagree) to 6 (strongly agree). The measure demonstrated good reliability at pretesting ($\alpha = .82$) and the experimental session ($\alpha = .81$).

Empathy We assessed the extent to which participants felt empathy towards the victims of Hurricane Katrina using a frequently used measure of empathy (e.g., Batson et al., 1997, 2002). Participants were asked to indicate the extent to which they felt each of the following as they watched the videos: sympathetic, softhearted, moved, compassionate, warm, and tender ($\alpha = .84$).

Racism attributions Participants' perceptions of the extent to which racism played a part in the slow response after Hurricane Katrina, was

measured using five items. Sample items included "The government's response to Hurricane Katrina was slow because victims were predominantly Black" and "The US government doesn't care about Black people" ($\alpha = .91$).

Attitudes toward Blacks and Whites/ingroup favoritism Attitudes toward Whites and Blacks were measured using feeling thermometers. Attitudes toward other groups (e.g., politicians, children) were included as filler items. Feeling thermometers ranged from 0 degrees (extremely cool) to 100 degrees (extremely warm), with higher ratings indicating more favorable attitudes. The extent to which participants preferred the racial ingroup to a racial outgroup (Blacks) was computed by subtracting thermometer ratings of feeling toward Blacks from ratings of feeling toward Whites. Positive numbers represent ingroup favoritism.

Similarity We assessed similarities with the victims using seven items. Participants indicated agreement to questions such as "I have similar values as Hurricane Katrina victims," "I feel a bond with Hurricane Katrina victims" ($\alpha = .74$).

Results

Participants who indicated that they believed that the purpose of the study was to examine a change in their attitudes before and after seeing the videos, or to assess how their feelings about race and racism may have been affected by watching the videos were excluded from analyses. This resulted in exclusion of 12 participants. In addition, two participants completed the initial measure of justice beliefs but did not complete the experiment. Therefore, our analyses are based on a final sample of 110 participants.

Descriptives and correlations between primary study variables are presented in Table 1. Random assignment of participants to experimental conditions was successful. Participants who were assigned to different experimental conditions did not differ in justice beliefs prior to the experiment (T1JBs), $F(2, 108) = 0.50, ns$.

Table 1. Means, standard deviations and correlations between primary study variables.

	1	2	3	4	5	6
1. Justice beliefs (time1)	–					
2. Justice beliefs (time2)	.72**	–				
3. Racism attributions	-.29**	-.49**	–			
4. Ingroup favoritism	.31**	.35**	-.35**	–		
5. Empathy	-.04	-.17	.23*	-.15	–	
6. Similarity	-.21*	-.28**	.29*	.11	.32**	–
Means	3.16	3.11	2.55	0.45	4.27	2.30
Standard deviations	0.67	0.66	1.47	17.58	1.05	0.93

Note. * $p < .05$, ** $p < .01$. Scales range from 0–6 for all measures except ingroup favoritism which ranges from 0–100.

Empathy

We argued that strong emotions, and empathy in particular, were evoked by the news coverage of Hurricane Katrina, thus creating a context in which belief change is likely. Therefore, it is essential to demonstrate that our video manipulation led participants to feel empathetic. Indeed, participants reported feeling a great deal of empathy ($M = 4.27$). Importantly, levels of empathy in the racism-explanation condition were not different from that in the no-explanation condition, $t(105) = -1.81$, *ns*, nor the government incompetence condition, $t(105) = -0.77$, *ns*. Empathy also did not differ as a function of initial beliefs about system justice, $t(105) = .80$. Further, experimental conditions and initial justice beliefs did not interact to predict empathy $\Delta F(2, 103) = 0.55$, *ns*. Overall, the video manipulation evoked strong feelings of empathy from participants.

Changing justice beliefs

Our primary hypothesis is that people's belief that the social system is legitimate is most likely to be shaken when presented with evidence of the disastrous consequences of the slow response to the hurricane and strong arguments suggesting racism. In order to test this hypothesis, we examined whether justice beliefs measured prior to the experiment (T1JBs) would interact with experimental condition to predict justice beliefs measured during the experimental session (T2JBs).

That is, did the relationship between justice beliefs before and during the experimental session differ as a function of experimental condition?

We began by creating two dummy-coded variables to represent our three experimental conditions. Given our special interest in the effect of racism claims, the "racism" condition served as our referent group and was coded as 0 in both dummy variables. One dummy-coded variable is the contrast between the racism and the no-explanation condition while the other variable is the contrast between the racism and the government-incompetence condition. Each dummy-coded variable represents a partial effect, and thus the presence of both dummy-coded variables is necessary in analyses to reflect all three conditions (Aiken & West, 1991). We conducted hierarchical regression analyses in which T2JBs was the dependent variable. On Step 1 of the equation, we entered the centered T1JBs variable and the dummy codes representing the experimental conditions as predictors. On step 2, we entered the two-way interactions between T1JB and each of the dummy-coded variables.

The first step of the analysis examining T2JBs was significant, $F(3, 105) = 38.61$, $p < .01$, $R^2 = .53$. Not surprisingly, T1JBs were strongly related to T2JBs, $\beta = 0.73$, $t(105) = 10.72$, $p < .01$. Overall, compared to the racism condition, T2JBs were not different in the no-explanation condition, $\beta = 0.03$, $t(105) = .34$, *ns* nor the government-incompetence condition $\beta = 0.08$, $t(105) = 1.02$, *ns*. However, the second step of the analysis was significant, $\Delta F(2, 103) = 7.51$, $p < .01$, $\Delta R^2 = .06$

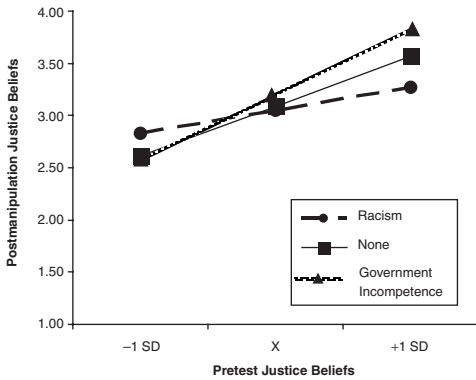


Figure 1. Postmanipulation justice beliefs as a function of pretest justice beliefs and explanation manipulation.

and both interaction terms were significant predictors of T2JBs. More specifically, the relationship between T1JBs and T2JBs in the racism condition was different from the relationship in the no-explanation condition, $\beta = 0.19$, $t(103) = 2.12$, $p < .05$ and in the government-incompetence condition $\beta = 0.41$, $t(103) = 3.87$, $p < .01$.

Exposure to gripping images of the disaster and explanations of racism should pose the greatest challenge to the beliefs of people who strongly believe that the social system is just and legitimate. Therefore, we examined whether exposure to the racism explanation would lead these strong endorsers of justice beliefs to adjust their beliefs. To do so, we probed the interaction by comparing the effect of video condition on T2JBs among people who were low (i.e., one standard deviation below the mean), moderate (at the mean) and high (i.e., one standard deviation above the mean) in T1JBs (see Figure 1). Consistent with hypotheses, among people who were high in endorsement of T1JBs, those in the racism explanation condition had significantly lower T2JBs than both those in the government-incompetence, $\beta = 0.38$, $t(103) = 3.54$, $p < .01$ and those in the no-explanation condition $\beta = 0.21$, $t(103) = 1.95$, $p = .05$. Among people who were low in T1JBs, people in the racism condition did not differ from people in the government-incompetence, $\beta = -.18$, $t(103) = 1.82$, *ns* nor the no-explanation condition ($\beta = -.14$, $t(103) = 1.26$,

ns in T2JBs. Similarly, among people at mean levels of T1JBs, people in the racism-explanation condition did not differ from people in the government-incompetence, $\beta = 0.10$, $t(103) = 1.33$, *ns*) nor the no-explanation condition, $\beta = 0.04$, $t(103) = .47$, *ns* in T2JB. Thus, exposure to footage of Hurricane Katrina and racism claims led to lower justice beliefs among people initially high in justice beliefs.

We also examined the simple slopes in the three experimental conditions. In the racism-explanation condition, the relationship between T1JBs and T2JB ($\beta = 0.34$, $t(103) = 2.75$, $p < .01$) is less strong than in the no-explanation condition ($\beta = 0.71$, $t(103) = 5.80$, $p < .01$) and the government-incompetence conditions ($\beta = 0.95$, $t(103) = 10.14$, $p < .01$). Thus, for people in the no-explanation and government-incompetence conditions, T1JBs were a strong determinant of T2JBs. However, for people in the racism-explanation condition, exposure to the experimental manipulation weakened the connection between their T1JBs and T2JB. And, as the previous analysis demonstrated, this shift was driven by those who strongly endorsed justice beliefs prior to the experiment.

Acknowledging racism

Next, we examined whether pairing the claims of racism with the Katrina videos would also decrease the tendency for individuals who strongly held T1JBs to deny that injustice did in fact occur. We used the same hierarchical regression analytic strategy as above with the extent to which participants believed that racism on the part of the government affected Katrina responses as the dependent variable. The first step of the analysis was significant, $F(3, 105) = 3.37$, $p < .05$, $R^2 = .09$. The only significant finding was that T1JBs were negatively related to participants believing that racism played a part in the Katrina response ($\beta = -0.29$, $p < .01$). However, this effect was qualified by a significant interaction at Step 2 of the analysis, $\Delta F(2, 103) = 3.06$, $p = .05$, $\Delta R^2 = .05$; T1JBs were differentially related to perceptions of government racism

following video exposure in the racism condition than in the no-blame condition, $\beta = -0.32$, $t(103) = -2.44$, $p < .05$, and marginally different from that in the government-incompetence condition, $\beta = -0.27$, $t(103) = -1.75$, $p = .08$.

We followed the same procedure outlined above to explore the nature of the interaction. The interaction is depicted in Figure 2. This analysis revealed that among individuals who were high in T1JBs, exposure to racism claims led to significantly greater likelihood of acknowledging the role of government racism than in the no-blame condition ($\beta = -0.35$, $t(103) = -2.22$, $p < .05$), although not more than in the government-blame condition ($\beta = -0.25$, $t(103) = -1.61$, *ns*). People who were low and moderate in T1JBs were equally likely to acknowledge racism regardless of experimental condition (all p 's $> .15$). Furthermore, whereas T1JBs were related to a lower likelihood of acknowledging government racism in the no-explanation video condition ($\beta = -0.55$, $t(103) = -3.13$, $p < .01$) and in the government-incompetence condition ($\beta = -0.33$, $t(103) = -2.48$, $p < .05$) this was not the case in the racism-explanation condition ($\beta = 0.06$, $t(103) = 0.33$, *ns*). Thus, the racism explanation had the effect of eliminating differences in acknowledgement of government racism that was due to initial justice beliefs.

In order to further test our hypothesis that among those who were high in T1JBs, greater acknowledgement of racism following exposure to the racism explanation was due to shifts in justice beliefs, we conducted mediational analyses following procedures specified by Baron and Kenny (1986). Above, we demonstrated that T1JBs and experimental condition interact to predict perceptions of racism; this represents the effect to be mediated. We also demonstrated that the proposed mediator T2JBs was predicted by the interaction between T1JBs and experimental condition. Our next step then was to demonstrate that T2JBs were related to perceptions of racism; indeed they were, ($\beta = -0.49$, $t(108) = -5.81$, $p < .01$). Finally, we conducted hierarchical regression analyses, in which the effect of T2JB was entered on the first step of the equation, T1JBs and the dummy-coded variables representing the

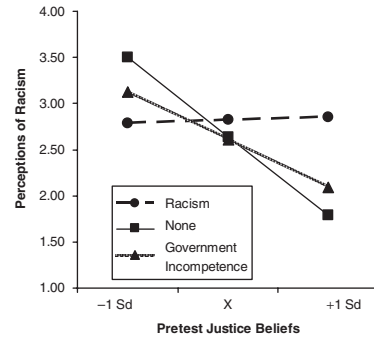


Figure 2. Perceptions of racism a function of pretest justice beliefs and explanation manipulation.

experimental conditions were entered on Step 2, and the interactions between T1JBs and experimental conditions on Step 3. This analyses revealed that, at Step 3, the interaction between T1JBs and experimental condition did not predict perceptions of racism, $\Delta F(2, 102) = 1.91$. That is, after controlling for T2JBs, T1JB was no longer differentially related to perceptions of racism following video exposure in the race condition than in the no-blame condition, $\beta = -0.21$, $t(102) = -1.69$, *ns* nor in the government-incompetence condition, $\beta = -0.03$, $t(102) = -.21$, *ns*). To test whether the mediation was significant, we ran the INDIRECT SPSS macro (Preacher & Hayes, 2008). Both indirect effects were significantly different from 0, that is, there was a significant reduction of the original effects between the interaction of T1JB and the experimental conditions on racism when T2JBs were controlled for. Specifically, for the interaction between T1JB and the dummy-coded variable that contrasts the racism condition and the no-blame condition, the bootstrapped estimates of the indirect effects were significantly different from 0, 95% confidence interval (CI), $-1.28, -0.03$. Similarly, for the interaction between T1JB and the dummy-coded variable that contrasts the racism and the government-incompetence explanation conditions, the bootstrapped estimates of the indirect effects were significantly different from 0, 95% CI, $-1.48, -.31$. Therefore, we have evidence of significant mediation.

Consequences of justice beliefs for attitudes towards victims

We further explored whether justice beliefs are associated with intergroup consequences and attitudes toward victims. We conducted analyses separately with ingroup favoritism and similarity with victims. T2JBs had significant effects on both dependent measures. These effects occurred independently of experimental condition and experimental condition alone did not produce significant effects. Therefore, we focus our results below on the effects of justice beliefs.

T1JBs significantly predicted ingroup favoritism ($\beta = 0.31, t(107) = 3.34, p < .01$). Controlling for this effect, T2JBs also significantly predicted more ingroup favoritism ($\beta = 0.26, t(107) = 2.00, p < .05$). A similar pattern of results was observed for perceptions of similarity. T1JBs were negatively related to perceptions of similarity with the victims ($\beta = -0.21, t(107) = -2.16, p < .05$). But, even controlling for this relationship, T2JBs were negatively related to perceptions of victim similarity ($\beta = -0.27, t(107) = -2.02, p < .05$).

Discussion

As hypothesized, shifts in the belief that the American social system is just and legitimate were more likely to occur among people who were relatively high in justice beliefs when they were exposed to images of the Hurricane Katrina disaster *along with* racism claims compared to when they were exposed to the images without a racism explanation. In this condition, these people were also more likely to acknowledge that racism was a factor in the government's response. Further, lower justice beliefs after exposure to the images were related to greater perceptions of similarity to the victims and less ingroup favoritism.

Although people often defend their cherished beliefs, this study demonstrates that sometimes people change. The study emphasizes situational characteristics that are likely to facilitate change in important beliefs. First, motivation to defend beliefs that would lead to negative attitudes toward others can be minimized if one is feeling

empathetic toward those others. The images of suffering made it difficult to not feel for those affected by the Hurricane; indeed, in the current study, empathy was high across all the experimental conditions. Strong emotional reactions may also diminish cognitive resources necessary for defensiveness. Defensiveness is also likely to be minimized when threatening information comes from a source perceived as legitimate and credible. In this particular case, the suggestion that racial injustice affected the disaster response was covered extensively by the media, by major television networks (e.g., NBC, CNN) and newspapers (the *New York Times*), and more independent news outlets (e.g., Democracy Now). And, a wide variety of people were seen discussing racism claims. Furthermore, changes to cherished beliefs are more likely to occur with greater temporal distance from the threatening event, as this increases the likelihood that people can consider the broader implication of the events (Trope & Liberman, 2003). People are especially likely to react defensively if there are unresolved negative emotions associated with an event (Pyszczynski, Greenberg, Solomon, Sideris, & Stubing, 1993). In fact, Pyszczynski et al. (1993) argue that the role of defenses is to prevent unpleasant emotions from surfacing. Therefore, once the emotion is expressed, the defensive mechanism is no longer necessary. The fact that our experiment took place 18–24 months after Hurricane Katrina, likely reduced people's defensiveness relative to shortly after the event.

Undoubtedly, getting people to acknowledge injustice in the social system of which they are a part is difficult. We have suggested that racism claims presented within the context of Hurricane Katrina produce shifts in justice beliefs. Nonetheless, there may be other ways to do this as well. For example, Whites are less defensive and more willing to acknowledge racism when they have been self-affirmed (Adams, Tormala, & O'Brien, 2006). It may also be possible to get people to acknowledge injustice by changing the way they conceptualize injustice, and racism in particular. For many White Americans, racism involves particular individuals holding prejudicial attitudes

(O'Brien et al., 2008). An individualistic conceptualization of racism would lead to a low likelihood of perceiving the events that took place in the aftermath of Hurricane Katrina as racist for example. People would be more likely to recognize injustice if they considered structural forces that place members of racial minority groups, such as Black Americans, at a disadvantage.

This research demonstrates the importance of calling attention to racism and injustice when it occurs. First, doing so can lead to changes in belief structures that maintain inequality. However, because acknowledging that one's worldview may be inaccurate is difficult, it is important to consider ways that lead people to be more receptive to such information. Furthermore, when people are willing to realize that injustice exists, this may lead to more positive attitudes and behavior toward affected individuals.

Limitations

In this study, we measured justice beliefs before and after exposure to the experimental manipulation. In all conditions, participants were exposed to images of the hurricane disaster. Thus, we do not know to what extent the changes witnessed may have also occurred naturally without intervention from our part. One might argue that changes among college students who were initially high in endorsement of justice beliefs are due to regression to the mean. And further, in a liberal college environment, these individuals may be especially likely to shift their beliefs (Newcomb, 1943). However, the fact that we found that the relationship between justice beliefs measured during the two time periods was different across experimental conditions, gives us confidence that the changes observed were not simply due to natural changes that occur over time. Furthermore, our two measurement periods were relatively close together, within a few days and as little as 24 hours. This time period is likely to be insufficient for significant natural changes in ideological beliefs to occur.

Another limitation is that our sample consisted of college students. As suggested above, students in a liberal college atmosphere are likely subject to

a variety of experiences that affect their beliefs. Thus, shifts in justice beliefs may be somewhat expected among college students. Among a broader sample, among people whose beliefs are more deeply ingrained, shifts in justice beliefs may be more difficult to attain. Nonetheless, this study demonstrated that exposure to an 11-minute video can lead to shifts in ideological beliefs that are often thought of as relatively stable in nature.

Conclusions

This study examined how beliefs about justice system affected responses to evidence and claims of racial injustice in the context of a real-world event, Hurricane Katrina. People who perceive the social system as just are often unlikely to see evidence of racism, and this was generally the case in the context of Hurricane Katrina. However, when gripping images of the disaster were paired with strong claims of racism, people who strongly endorsed justice beliefs were open to changing them and acknowledging injustice. This research suggests that sociopolitical events and how they are presented can influence beliefs that are important to justice. Understanding factors that hinder acknowledgement of injustice will help both advantaged and disadvantaged groups to navigate situations where injustice occurs. Being able to effectively manage these situations will be useful in promoting the types of changes that are necessary to make the ideals that are crux of the dominant American ideology a reality.

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References

- Adams, G., Tormala, T. T., & O'Brien, L. T. (2006). The effect of self-affirmation on perception of racism. *Journal of Experimental Social Psychology, 42*(5), 616–626.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.

- Anderson, C. A., Lepper, M. R., & Ross, L. (1980). Perseverance of social theories: The role of explanation in the persistence of discredited information. *Journal of Personality and Social Psychology*, 39(6), 1037–1049.
- Avdeyeva, T. V., Burgetova, K., & Welch, I. D. (2006). To help or not to help? Factors that determined helping responses to Katrina victims. *Analyses of Social Issues and Public Policy*, 6, 159–173.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Batson, C. D., Chang, J., Orr, R., & Rowland, J. (2002). Empathy, attitudes and action: Can feeling for a member of a stigmatized group motivate one to help the group. *Personality and Social Psychology Bulletin*, 28(12), 1656–1666.
- Batson, C. D., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H. J., Mitchener, E. C., Bednar, L. L., et al. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology*, 72(1), 105–118.
- Chaiken, S., Giner-Sorolla, R., & Chen, S. (1996). Beyond accuracy: Defense and impression motives in heuristic and systematic information processing. In P. M. Gollwitzer & J. A. Bargh, (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 553–578). New York: Guilford Press.
- Chaiken, S., & Trope, Y. (Eds.). (1999). *Dual-process theories in social psychology*. New York: Guilford Press.
- Crocker, J., Luhtanen, R., Broadnax, S., & Blaine, B. E. (1999). Belief in U.S. government conspiracies against Blacks among Black and White college students: Powerlessness or system blame? *Personality and Social Psychology Bulletin*, 25(8), 941–953.
- Czopp, A. M., & Monteith, M. J. (2003). Confronting prejudice (literally): Reactions to confrontations of racial and gender bias. *Personality and Social Psychology Bulletin*, 29(4), 532–544.
- Fiske, S. T. (2004). Intent and ordinary bias: Unintended thought and social motivation create casual prejudice. *Social Justice Research*, 17(2), 117–127.
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, (Vol. 29, pp. 61–139). San Diego, CA: Academic Press.
- Grunwald, M. (2007, August 13). The threatening storm. *Time*, 170(7), 28–39.
- Hornsey, M. J., Oppes, T., & Svensson, A. (2002). 'It's ok if we say it, but you can't': Responses to intergroup and intragroup criticism. *European Journal of Social Psychology*, 32(3), 293–307.
- Huddy, L., & Feldman, S. (2006). Worlds apart: Blacks and Whites react to Hurricane Katrina. *Du Bois Review*, 3(1), 97–113.
- Jarvis, B. G. (2006). MediaLab (Version 2006) [Computer software]. New York, NY: Empirisoft Corporation.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, 33(1), 1–27.
- Jost, J. T., & Hunyady, O. (2002). The psychology of system justification and the palliative function of ideology. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 13, pp. 111–153). Hove: Psychology Press/Taylor & Francis.
- Kaiser, C. R., Dyrenforth, P. S., & Hagiwara, N. (2006). Why are attributions to discrimination interpersonally costly? A test of system- and group-justifying motivations. *Personality and Social Psychology Bulletin*, 32(11), 1523–1536.
- Kaiser, C. R., Eccleston, C. P., & Hagiwara, N. (2008). Post-Hurricane Katrina racialized explanations as a system threat: Implications for Whites' and Blacks' racial attitudes. *Social Justice Research*, 21(2), 192–203.
- Katz, I., & Hass, R. G. (1988). Racial ambivalence and American value conflict: Correlational and priming studies of dual cognitive structures. *Journal of Personality and Social Psychology*, 55(6), 893–905.
- Kluegel, J. R., & Smith, E. R. (1986). *Beliefs about inequality: Americans' view of what is and what ought to be*. Hawthorne, NJ: Aldine de Gruyter.

- Lang, A., Newhagen, J., & Reeves, B. (1996). Negative video as structure: Emotion, attention, capacity, and memory. *Journal of Broadcasting & Electronic Media*, 40, 460–477.
- Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion*. New York: Plenum Press.
- Levin, S., Sidanius, J., Rabinowitz, J. L., & Federico, C. (1998). *Ethnic identity, legitimizing ideologies, and social status: A matter of ideological asymmetry*. *Political Psychology*, 19(2), 373–404.
- Levy, S. R., Freitas, A. L., Mendoza-Denton, R., & Kugelmass, H. (2006). Hurricane Katrina's impact on African Americans' and European Americans' endorsement of the Protestant Work Ethic. *Analyses of Social Issues and Public Policy (ASAP)*, 6(1), 75–85.
- Levy, S. R., West, T. L., & Ramirez, L. (2005). Lay theories and intergroup relations: A social-developmental perspective. *European Review of Social Psychology*, 16, 189–220.
- Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology*, 37(11), 2098–2109.
- Major, B., Gramzow, R. H., McCoy, S. K., Levin, S., Schmader, T., & Sidanius, J. (2002). Perceiving personal discrimination: The role of group status and legitimizing ideology. *Journal of Personality and Social Psychology*, 82(3), 269–282.
- Major, B., Kaiser, C. R., O'Brien, L. T., & McCoy, S. K. (2007). Perceived discrimination as worldview threat or worldview confirmation: Implications for self-esteem. *Journal of Personality and Social Psychology*, 92(6), 1068–1086.
- McGregor, I., & Marigold, D. C. (2003). Defensive zeal and the uncertain self: What makes you so sure? *Journal of Personality and Social Psychology*, 85(5), 838–852.
- McGregor, I., Zanna, M. P., Holmes, J. G., & Spencer, S. J. (2001). Compensatory conviction in the face of personal uncertainty: Going to extremes and being oneself. *Journal of Personality and Social Psychology*, 80(3), 472–488.
- Napier, J. L., Mandisodza, A. N., Andersen, S. M., & Jost, J. T. (2006). System justification in responding to the poor and displaced in the aftermath of Hurricane Katrina. *Analyses of Social Issues and Public Policy (ASAP)*, 6(1), 57–73.
- Newcomb, T. M. (1943). *Personality and social change: Attitude formation in a student community*. New York: Dryden.
- O'Brien, L. T., Blodorn, A., Alsbrooks, A., Dube, R., Adams, G., Nelson, J. C. (2008). Understanding White Americans' perceptions of racism in Hurricane Katrina-related events. *Group Processes & Intergroup Relations*, 12(4), 431–444.
- Petty, R. E., Fleming, M. A., Priester, J. R., & Feinstein, A. H. (2001). Individual versus group interest violation: Surprise as a determinant of argument scrutiny and persuasion. *Social Cognition*, 19(4), 418–442.
- Pew Research Center for the People and the Press. (2005). Two-in-three critical of Bush's relief efforts. Retrieved March 28, 2008, from <http://peoplepress.org/reports/display.php3?ReportID=255>
- Plaut, V. C., Markus, H. R., & Lachman, M. E. (2002). Place matters: Consensual features and regional variation in American well-being and self. *Journal of Personality and Social Psychology*, 83(1), 160–184.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Pyszczynski, T., Greenberg, J., Solomon, S., Sideris, J., & Stubing, M. J. (1993). Emotional expression and the reduction of motivated cognitive bias: Evidence from cognitive dissonance and distancing from victims' paradigms. *Journal of Personality and Social Psychology*, 64(2), 177–186.
- Simpson, D. (2005). Jackson blasts Bush over Katrina aid. Retrieved on March 28, 2008, from http://www.breitbart.com/article.php?id=D8CCAOI81&show_article=1
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, 110(3), 403–421.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *The psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.
- Williams, L. E., & Bargh, J. A. (2008). Keeping one's distance: The influence of spatial distance cues on affect and evaluation. *Psychological Science*, 19(3), 302–308.

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Appendix

Justice beliefs items

If people work hard they almost always get what they want.

Most people who don't get ahead should not blame the system; they really have only themselves to blame.

In America, getting ahead doesn't always depend on hard work.

Even if people work hard, they don't always get ahead.

Perseverance and hard work are important values.

In America, individuals who are strongly motivated to succeed usually get ahead.

America is an open society where all individuals can achieve higher status.

Advancement in American society is possible for all individuals.

Individual members of certain groups have difficulty achieving higher status.

Individual members of certain groups are often unable to advance in American society.

America is a just society where differences in status between groups reflect actual group differences.

Differences in status between groups in American society are fair.

Differences in status between groups in American society are the result of injustice.

It is unfair that certain groups in America have poorer living conditions than other groups.