


The Endurance of Interpersonal Confrontations as a Prejudice Reduction Strategy

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Abstract

Previous work has found that individuals who have been confronted for discrimination demonstrate a reduction in explicit prejudice and use fewer stereotypes immediately after the confrontation. Although confronting prejudice has been touted as a tool for prejudice reduction, it is not known how these effects translate over time and what processes might account for their endurance. Across two studies, the present research finds that individuals used significantly fewer negative stereotypes 7 days after confrontation (Study 1) and engaged in behavioral inhibition to stereotypical cues on a probe task 1 week after confrontation. Moreover, guilt and prolonged rumination mediated these effects for confronted participants (Studies 1 and 2). Across two studies, the present studies reveal the lasting effects of interpersonal confrontations in prejudice reduction and the process by which these effects endure.

Keywords

interpersonal confrontation, prejudice reduction, racism, stereotypes

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Incidences of prejudice and discrimination continue to be an everyday reality for racial minorities (Sue et al., 2007; Swim, Hyers, Cohen, & Ferguson, 2001) and result in negative affective, cognitive, and health outcomes for racial and ethnic minorities. Specifically, prejudice causes anger and discomfort (Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003), impairs academic achievement (Walton & Cohen, 2007), and hampers overall well-being (Pascoe & Smart Richman, 2009). Moreover, prejudice affects not only the targets of bias but also nontargeted bystanders such as fellow ingroup members (e.g., Branscombe, Schmitt, & Harvey, 1999; McCoy & Major, 2003) and other stigmatized individuals (Sanchez, Chaney, Manuel, Wilton, & Remedios, 2017). Given the wide-reaching and wide-ranging deleterious consequences of prejudice, prejudice reduction is a key step to improving the lives of racial minorities and other stigmatized groups.

Confronting, defined here as a verbal challenge directed at the person or persons who commit a blatant, subtle, or unspoken act of discrimination, has been identified as an effective prejudice reduction strategy (see Chaney, Young, & Sanchez, 2015, for review). Specifically, after being confronted, Whites immediately report lower levels of explicit prejudice (Czopp, Monteith, & Mark, 2006), use fewer stereotypic responses during a stereotype application task (Czopp et al., 2006), and are more likely to engage in compensatory behavior toward the individual who has confronted

them (Mallett & Wagner, 2011). Despite these promising effects, it is unclear that how enduring they may be and what mechanisms may account for their longevity. Thus, the present research examined whether confronting prejudice can create lasting effects on stereotype application and inhibition and whether rumination and guilt may account for this endurance.

Motivations to Change

Motivation to “break the prejudice habit” is believed to stem from two sources: awareness of bias and concern about the consequences of one’s bias, including self-directed and other-directed consequences. Specifically, individuals must first be aware of the discrepancy between how they should behave (e.g., egalitarian) and how they do behave (i.e., discriminatory) as well as experience guilt (Devine, Monteith, Zuwerink, & Elliot, 1991; Monteith, 1993; Monteith, Ashburn-Nardo, Voils, & Czopp, 2002) and concern about

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the effects of prejudice (Devine & Monteith, 1993; Plant & Devine, 2009).

Due to typically strong social norms of egalitarianism (Blanchard, Lilly, & Vaughn, 1991; Monteith, Deneen, & Tooman, 1996), awareness of personal biases may encourage self-regulation in the presence of “cues for control,” defined as cues which signal that an individual should regulate the automatic activation and application of stereotypes (Monteith et al., 2002). Specifically, cues for control are environmental stimuli which signal a potential occasion to stereotype others (e.g., the description of a Black man engaging in ambiguously aggressive behavior may activate a “violent” stereotype). Critically, the awareness of one’s own biases may lead to negative self-directed (neg-self) affect, behavioral inhibition, and retrospective reflection in this situation, ultimately associating one’s biased behavior with negative behavior and turning this ambiguous situation into a cue for control (Monteith et al., 2002). Moreover, this behavioral inhibition and, now, prospective reflection should serve as mechanisms to prevent future prejudiced behavior.

Indeed, individuals who have been made aware of their prejudiced behavior often experience feelings of guilt (Devine et al., 1991; Monteith, 1993), which can lead to avoidance of similar future experiences and motivation to attend to information that may reduce biases (Amodio, Devine, & Harmon-Jones, 2007; Monteith, 1993). For example, after learning that they have demonstrated prejudiced behavior, feelings of guilt led individuals to compensate by reporting a greater desire to read newspaper articles about prejudice reduction strategies (Amodio et al., 2007), as well as greater self-reflection (e.g., Monteith et al., 2002) and effortful regulation in future situations (Monteith, Mark, Ashburn-Nardo, 2010).

When individuals are made aware of their biases, behavioral inhibition is evidenced by a brief pause in behavior to attend to an error and prevent future errors (Monteith et al., 2002; Moskowitz & Ignarri, 2009; Moskowitz & Li, 2011). Specifically, individuals with chronic egalitarian goals (Moskowitz & Ignarri, 2009) and individuals made aware of their racial biases (Monteith et al., 2002) “put the brakes on” by responding slower on tasks in which stereotypes may be automatically activated in an effort to not be prejudiced. This inhibition may, over time, prevent stereotypes from being automatically activated and applied (e.g., Amodio, Devine, & Harmon-Jones, 2008; Moskowitz, Gollwitzer, Wasel, & Schaal, 1999). As such, behavioral inhibition provides a disruption of the automatic activation and application of racial stereotypes. In addition, retrospective reflection involves a ruminative process regarding personal biases and is often positively associated with feelings of guilt (Monteith et al., 2002). Specifically, individuals informed of their biases report thinking about their biases and prejudice-related guilt more frequently than individuals who were not made aware of their biases (Monteith et al., 2002). Together, behavioral

inhibition, feelings of guilt, and retrospective reflection can ultimately assist individuals in “putting the brakes on prejudice.” Specifically, once cues for control have been established, individuals can activate strategies (i.e., behavioral inhibition, prospective reflection) to prevent automatic stereotyping in the future (Monteith et al., 2002).

Notably, we argue that for these strategies to be activated in the future, it is critical for individuals to experience guilt and prolonged rumination after being made aware of their biases. Specifically, we propose that individuals who engage in rumination regarding their behavior may experience sufficient motivation to engage in strategies (e.g., behavioral inhibition) to prevent future transgressions. Rumination is broadly conceptualized as recurrent thinking about personal concerns and unresolved goals (Martin & Tesser, 1996; Segerstrom, Stanton, Alden, & Shortridge, 2003). When rumination is centered on higher level causes and consequences (e.g., why did you feel this way? why did this happen?), it can assist in problem-solving (Stöber, 1998; Williams, 1996), especially active behavioral problem-solving efforts (Szabó & Lovibond, 2004, 2006). Furthermore, people who ruminate about a trauma and its implications experience personal growth (Tedeschi & Calhoun, 2004; Ullrich & Lutgendorf, 2002) as rumination may be adaptive, promoting positive emotional regulation (Watkins, 2004; Watkins & Moulds, 2005). In terms of prejudice reduction, we anticipate that confronted individuals who experience guilt may ruminate on this negative affect, which should motivate them to engage in greater self-regulation in the future (Monteith, 1993) and seek behavioral strategies to reduce prejudice in the future. Thus, we propose prolonged rumination as a mechanism for lasting prejudice reduction, such that awareness of one’s biases must result in guilt *and* continued rumination to ensure prolonged prejudice reduction.

Enduring Prejudice Reduction via Confrontation

Notably, awareness is a first step in motivating prejudice reduction but is perhaps the hardest to achieve as people lack awareness of their own implicit biases, and discrimination often occurs despite conscious nonprejudiced attitudes and intentions (Bargh, 1999; Devine, 1989; Gaertner & Dovidio, 1986). Notably, confrontation holds a unique position within the prejudice reduction literature because it does not require self-driven awareness of one’s prejudice. Instead, it allows outside forces to generate awareness and guilt (Czopp & Monteith, 2003) to motivate change through stereotype inhibition (Czopp et al., 2006) and reparative actions (Mallett & Wagner, 2011). Notably, confrontation may be especially effective in creating lasting change because of its dyadic (and often public) nature that may sustain levels of guilt through ruminative processes and behavioral inhibition.

Specifically, confrontations create awareness in an interpersonal situation, which, due to typically strong egalitarian norms, may be especially effective in promoting rumination due to the violation of a social norm, and for some, an internal egalitarian motivation (Plant & Devine, 1998).

Current Research

Although previous research has demonstrated that being confronted can result in prejudice reduction, these findings have been limited and measured only immediate outcomes on explicit measures of prejudice and stereotype application. As such, one goal of the present research is to determine whether confrontations can promote enduring change. Specifically, after being confronted for using negative stereotypes about Blacks during a stereotype application task, participants completed a modified stereotype application task (Study 1) and a measure of behavioral inhibition on a probe task (Study 2) 7 days after a confrontation. A second goal of this article is to identify the cascade of psychological processes that may account for prolonged prejudice reduction. Although retrospective reflection has been identified as an outcome of prejudice awareness, to our knowledge, no one has previously examined the role of guilt-related rumination in enduring attitude and behavioral change. As such, the present research sought to examine how guilt and rumination may operate in tandem to promote lasting stereotype inhibition. Thus, participants completed measures of neg-self affect (e.g., guilt) and negative other-directed (neg-other) affect (e.g., anger at confronter) immediately after the confrontation and a measure of prolonged rumination 7 days after the confrontation (Studies 1 and 2).

Study 1

In Study 1, we sought to examine not only whether the reduction of stereotype application endures 1 week after a confrontation but also to identify the mechanisms behind the enduring effect of confrontations on the application of negative stereotypes. Specifically, White participants were recruited to determine whether being confronted by an ingroup member for applying negative Black stereotypes promoted enduring change. After completing a stereotype application task in the lab, participants were either confronted or received no feedback, after which they completed measures of affect. One week later, participants were asked to complete a modified version of the stereotype application task to examine enduring prejudice reduction. Furthermore, based on past research suggesting the critical role of guilt and retrospective reflection in prejudice reduction (Monteith, 1993; Monteith et al., 2002), continued rumination may be imperative in promoting enduring stereotype reduction. Thus, we examined participants' rumination about their in-lab experience during the 7 days after a confrontation.

Method

Participants. One hundred five undergraduate participants who were identified as White during a prescreen survey completed Time 1 (T1) of the study. Six participants who did not identify as White during T1 and five participants who did not use any stereotypes at T1 were excluded from analyses.¹ Thus, the final analytic sample included 94 participants (62 women; 66%) with a mean age of 18.72 years ($SD = 0.97$) who received partial course credit for completing T1 and additional course credit for completing Time 2 (T2). Eighty-five participants (90.4%) returned to complete T2 (four control participants and five confronted participants did not complete T2). A priori power analyses suggested a data collection stop point between 90 and 100 to achieve 80% power for a medium effect size at T1 (based on neg-self, Study 3, Czopp et al., 2006). As the effect size at T2 was unknown, we hoped to achieve 80 participants (40 participants per cell; Simmons, Nelson, & Simonsohn, 2011).

Procedure. Participants were told that the purpose of the study was to examine the use of memory and inferences in daily life and informed that the initial laboratory study (T1) involved 1-hr lab session, while T2 involved completing a 5-min online survey 1 week after the lab session. Upon arrival in the lab, participants were greeted by one of three White female experimenters and provided consent for the study. Participants first completed the stereotype application task that has been used in prior work to elicit participants' stereotypical comments of Blacks (Czopp et al., 2006; Monteith et al., 2002). This task involves making inferences about a person whose image is presented along with a brief descriptive sentence (e.g., This person works with numbers). Critically, some trials typically elicit stereotypically negative inferences about Blacks (see detailed description below).

Participants were randomly assigned to experience a confrontation for stereotypical remarks or no confrontation. After completing all trials, participants who were randomly assigned to the confrontation condition were confronted by the experimenter, who said, "I thought some of your answers seemed a little offensive. The Black guy wandering the streets could be a lost tourist. People shouldn't use stereotypes, you know?" (tailored to one of participants' responses). Participants in the control (nonconfrontation) condition received no feedback. All experimenters were instructed to remain neutral and if participants responded, to simply respond "Okay," before moving on to the next portion of the study.

Participants then completed measures of affect, followed by several filler inference tasks. Finally, participants received instructions regarding the second part of the study and were dismissed from the lab session. One week after their lab session, participants received an e-mail instructing them to complete a follow-up survey that included a shorter, modified version of the stereotype application task as well as a measure

of rumination. Participants were required to complete this survey within 24 hr and were debriefed after completing the final measure of this survey. Thus, participants completed the stereotype application task at the beginning of the study, during which participants were either confronted or not (T1), and a modified version of the task 7 days later (T2).

Materials

T1 stereotype application task. During the stereotype application task, participants viewed 16 images of White and Black men and women (images selected from the Aging Mind Face Database; Minear & Park, 2004) each paired with a descriptive sentence (e.g., This person works with numbers; entire paradigm borrowed from Czopp et al. [2006]; Monteith et al. [2002]). Participants were instructed to make an inference about this person (e.g., They are an accountant). Three of the 16 images paired Black male faces with descriptive sentences intended to evoke stereotypical responses (e.g., This person can be found behind bars; response: criminal) but which could also evoke neutral responses (e.g., bartender). Participants were instructed to say their responses aloud and the experimenter recorded the participant's verbal answers on a separate computer. Participants who were randomly assigned to the confront condition were confronted by the experimenter at the end of the trials, while participants in the control condition received no feedback.

T1 affect. Participants completed measures regarding neg-self and neg-other affect during their session. Participants were presented with 15 affective words or phrases (Czopp et al., 2006) and asked to rate the extent to which they experienced these feelings during the session so far on a scale from 1 (*does not apply to me*) to 7 (*applies very much*). Sample neg-self items (10 items) include "guilty" and "angry at myself" and neg-other (five items) included items such as frustrated and angry at experimenter. These scales were both found to be reliable (neg-self: $\alpha = .94$; neg-other: $\alpha = .89$).

T2 stereotype application. Participants completed a modified version of the stereotype application task from the in-lab session that only included eight trials. Four of these trials included identical statements from the initial stereotype application task but with new images, and two of those trials were critical (i.e., paired Black faces with leading descriptions). The additional four statements were new and included two additional critical trials, and thus, the maximum number of stereotypes that participants could use was four. Participants could see a timer on each screen that counted down from 15 s, the time allotted for them to type in an answer for each trial. The order these trials were presented in was randomized.

T2 rumination. Participants responded to the following rumination measure: "Over the last week, how often did you find yourself thinking about the experience you had in

the lab?" which was completed at the end of T2 on a scale from 1 (*not at all*) to 7 (*all of the time*). The single item was designed to minimize the transparency of the study goals.

Results and Discussion

Initial analyses using a 2 (Condition: confronted vs. control) \times 3 (Experimenter) analysis of variance (ANOVA) for affect and T2 stereotype use did not reveal any main effects or interactive effects for the experimenter, $F_s < 2.64$, $p_s > .09$. Thus, all following analyses were conducted without experimenter as a factor. All confidence intervals (CIs) reported are CIs for the difference between the means.

T1 stereotype application. To ensure no baseline differences in stereotype use, an independent-samples *t* test was conducted on participants' stereotype use during the initial stereotype application task. There was no effect of condition on stereotypes used during the initial task (which happened before any confrontation; $M_{\text{control}} = 2.24$, $SD = 0.69$; $M_{\text{confront}} = 2.38$, $SD = 0.75$), $t(92) = 0.89$, $p = .37$, 95% CI = $[-0.16, 0.43]$.

Participant responses to confrontation. Two independent coders blind to hypotheses coded the responses of confronted participants, and a third independent coder was employed to resolve any coding disagreements. Ultimately, 29 (64.4%) participants agreed either verbally (e.g., "okay") or with a head nod, seven (15.6%) said and did nothing, seven (15.6%) made an excuse (e.g., "I actually thought about that after what I said"), one (2.2%) laughed, and one (2.2%) apologized (e.g., "You're right, sorry").

T1 affect. Being confronted resulted in significantly greater feelings of neg-self ($M = 2.34$, $SD = 1.40$) and neg-other ($M = 1.42$, $SD = 0.83$) compared with not being confronted ($M_{\text{negself}} = 1.66$, $SD = 0.98$; $M_{\text{negother}} = 1.02$, $SD = 0.10$), $t_s(92) > 2.74$, $p_s < .007$, $d_s > 0.57$, 95% CIs = $[>0.16, >0.64]$.

T2 stereotype application. Participants who were confronted during T1 used significantly fewer stereotypes on the previously seen trials ($M = 0.60$, $SD = 0.67$) than participants who were not confronted at T1 ($M = 1.62$, $SD = 0.68$), $t(83) = 6.94$, $p < .001$, $d = 1.51$, 95% CI = $[-1.32, -0.73]$. Furthermore, participants confronted at T1 used significantly fewer stereotypes on the novel trials ($M = 0.35$, $SD = 0.70$) than participants who were not confronted ($M = 1.09$, $SD = 0.73$), $t(83) = 4.74$, $p < .001$, $d = 1.03$, 95% CI = $[-1.05, -0.43]$. Thus, overall, being confronted at T1 resulted in significantly fewer stereotypes used 7 days later ($M = 0.95$, $SD = 1.15$) compared with not being confronted ($M = 2.71$, $SD = 1.14$), $t(83) = 7.07$, $p < .001$, $d = 1.54$, 95% CI = $[-2.25, -1.27]$.²

T2 rumination. When participants were confronted during T1, they reported thinking about their experience in the lab

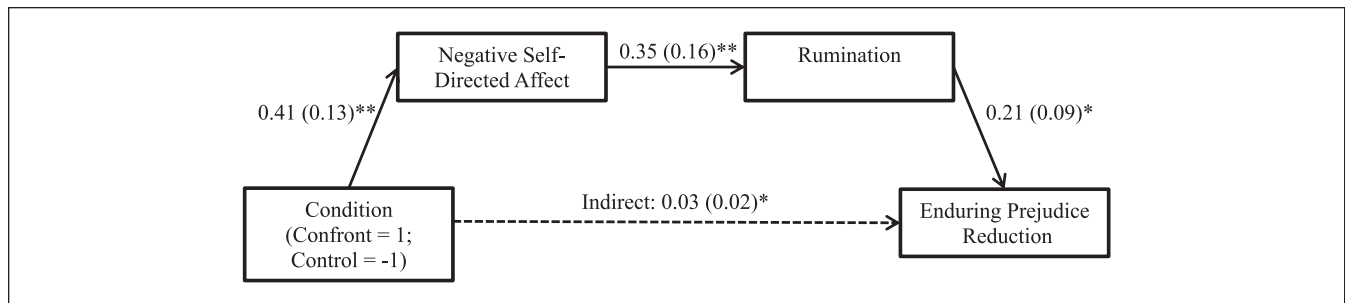


Figure 1. Study 1: Serial mediation model for the effect of confrontation on enduring stereotype reduction via negative self-directed affect and rumination.

* $p < .05$. ** $p < .01$.

significantly more during the time between T1 and T2 ($M = 3.18$, $SD = 1.59$) than participants who were not confronted ($M = 2.29$, $SD = 1.38$), $t(83) = 2.76$, $p = .01$, $d = 0.60$, 95% CI = [0.25, 1.53].

Mediation. Although past research has suggested that the effect of confrontation on immediate reduction in stereotype application is partially mediated by neg-self affect (Czopp et al., 2006), the present work sought to determine whether the endurance of confrontation as a prejudice reduction strategy was driven by continued rumination on the negative experience, and thus we conducted a serial mediation in which condition (1 = confrontation; -1 = control) predicts T1 neg-self, which in turn predicts T2 rumination, and ultimately fewer stereotypes applied at T2 (see Figure 1). The analysis was conducted in the PROCESS macro and computed 95% bias-corrected (BC) CIs based on a 10,000 bootstrapped sample. Condition significantly predicted neg-self, $B = 0.41$, $SE = 0.13$, $p = .003$, 95% CI = [0.14, 0.68]; neg-self significantly predicted T2 rumination, $B = 0.35$, $SE = 0.16$, $p = .008$, 95% CI = [0.10, 0.61]; and T2 rumination significantly predicted T2 stereotype application, $B = 0.21$, $SE = 0.09$, $p = 0.02$, 95% CI = [0.03, 0.38]. Furthermore, the indirect effect of condition on T2 stereotype use through neg-self and rumination was significant, $B = 0.03$, $SE = 0.02$, 95% BC-CI = [0.01, 0.09], indicating that immediate neg-self affect and prolonged rumination mediated the effect of confrontation on continued prejudice reduction. Finally, the indirect effect through only neg-self was not significant, $B = -0.03$, $SE = 0.05$, 95% BC-CI = [-0.13, 0.05], nor was the indirect effect through only rumination, $B = -0.01$, $SE = 0.03$, 95% BC-CI = [-0.09, 0.03].

The present study thus demonstrates that confrontations result in a decrease in stereotype application 1 week later, due in part to neg-self affect and continued rumination about the experience. Expanding prior work on the role of confrontation-related affect (Czopp et al., 2006; Monteith, 1993), Study 1 suggests the importance of continued rumination about the experience on enduring prejudice reduction. Indeed, the present findings demonstrate that confrontations

promote rumination which is significantly associated with less stereotype application 1 week later, indicating the role of rumination in ensuring enduring prejudice reduction.

However, the repetitive use of the stereotype application task during Study 1 raises concerns regarding a potential learned effect, such that participants may become aware that the task at T2 is intended to measure bias. Furthermore, the reduction in stereotype application at T2 is achieved on a modified version of the stereotype task that evoked the confrontation in T1. As such, it is unclear whether stereotype reduction after confrontation is task specific, in which case the present findings have minimal implications for the generalizability of confrontations as effective prejudice interventions broadly. Finally, the rumination measure was a single item that did not specify the nature of the rumination. Thus, in Study 2, we sought to demonstrate enduring prejudice reduction on a novel task at T2, to revise the rumination measure, and to examine other potential mechanisms.

Study 2

Although we believe Study 1 endurance effects are not due simply to the repetition of the task because new stereotypes were assessed (e.g., new images and statements) at T2, in Study 2, we examined enduring effects of confrontations on a novel task to demonstrate generalizable prejudice reduction. Furthermore, the stereotype application task used in Study 1 is unique as there is clearly an alternative, nonbiased response that could be given, and which is made clear in the confrontation itself. Although the use of fewer stereotypes at T2 by confronted participants in Study 1 may have indeed demonstrated behavioral inhibition, in Study 2, we sought to examine the enduring effects of confrontation on behavioral inhibition using a probe task 1 week after confrontation in which behavioral inhibition was indicated by latencies.

As such, in Study 2, we used a modified probe recognition task (Ham & Vonk, 2003; Latu, 2010) to examine behavioral inhibition to stereotypes. Specifically, participants were either confronted or not during T1, and 1 week later, they completed a behavioral inhibition task, in which participants

are first presented with either stereotypical or neutral sentences and then presented with probes, one at a time, which were either words in the sentence or not and are either neutral words or stereotypical. Participants must simply indicate whether the probe was in the sentence or not. The probe task allowed us to examine whether participants who were confronted at T1 demonstrated behavioral inhibition generally when presented with a stereotypical cue (i.e., on all probes for a stereotypical sentence) or behavioral inhibition only to the specific stereotypical cue (i.e., only on stereotypical probes) at T2. Critically, we contend that behavioral inhibition more generally would be indicative of greater self-regulation, specifically greater efforts to reduce stereotype application and prejudice. Indeed, a stereotypical sentence should serve, in its entirety, as a “cue for control,” indicating that one needs to “apply the brakes” and engage in behavioral inhibition for all probes within the sentence. Importantly, behavioral inhibition signals a pause or interruption of an automatic behavior (i.e., stereotype activation and application). As such, behavioral inhibition in response to stereotypical sentences 1 week after a confrontation would indicate self-regulation and an attempted disruption of the automatic activation and application of stereotypes.

Furthermore, in Study 2, we sought to examine alternative potential mechanisms which may explain the enduring effects of a confrontation, including prejudice suppression and egalitarian motivation. Specifically, we examine prejudice suppression as a mechanism due to past research indicating that suppression can, at times, be motivated by the desire to conform to social norms (Crandall, Eshleman, & O’Brien, 2002). Thus, as confrontations rely on highlighting a discrepancy between one’s behavior and an egalitarian social norm, we sought to rule out suppression (and by extension, conforming to social norms) as a possible mechanism for enduring prejudice reduction after a confrontation. Moreover, while we believe motivation to be egalitarian may assist in promoting enduring change, we anticipate that motivation alone is not enough as it does not signal a broader awareness of cues for control or situations in which one may need to enact prejudice reduction strategies (e.g., behavioral inhibition). Specifically, while confrontations may indeed engender greater egalitarian motivation, we propose that this motivation does not encompass or highlight a greater awareness of situations which may signal a cue for control. As such, while an egalitarian motivation may serve to reduce prejudice within an identical situation as the one in which an individual was confronted in, it may not promote the necessary reflection on additional situations in which one’s biases may become evident. Thus, while we anticipated that confronted participants would report higher prejudice suppression and egalitarian motivation, we did not anticipate that either would serve as a mechanism for behavioral inhibition. Finally, in Study 2, the rumination measure was expanded to assess, specifically, rumination about neg-self affect (e.g., guilt) with multiple items.

Method

Participants. Ninety-three participants who were identified as White/Caucasian during a large prescreen survey at the beginning of the semester were recruited (55 males, 59.1%) with a mean age of 19.55 years ($SD = 1.52$). Participants received partial course credit for completing T1 of the study in the laboratory and additional credit for completing T2 online. Seventy-five participants (80.1%) completed T2 measures (eight control participants, 10 confronted participants did not complete T2). Based on Study 1 neg-self effect size, we set a data collection stop point of 90 to 100 participants for Study 2 to achieve 80% power at T1. As we used a new T2 measure, T2 effect sizes were once again unknown, and we again hoped to achieve a collection of 80 participants at T2 (based on Simmons et al., 2011). However, attrition was higher in Study 2 than in Study 1, and thus, while our data collection stop point was achieved for T1, it was just shy for T2.

Procedure. Procedure at T1 was identical to Study 1. Participants were randomly assigned to be confronted on the stereotype application task or to receive no feedback, and then completed measures of affect (neg-self, $\alpha = .93$, neg-other, $\alpha = .94$) and filler tasks. During T2, participants completed, in this order, a new measure of behavioral inhibition, as well as new measures of rumination, suppression of prejudice, and egalitarian motivation. T1 sessions were led by one of four White female experimenters, and participants were debriefed after T2. Although we were unable to present T2 as a completely separate study from T1 due to a desire to secure high retention within the participant pool, T1 was described as examining inferences, while T2 was described as examining recall, and was conducted via an online survey. Reaction time measures were collected via QRTengine (Barnhoorn, Haasnoot, Bocanegra, & van Steenbergen, 2015) which was integrated in Qualtrics and has been demonstrated to provide accurate reaction time data.

Materials

T2 behavioral inhibition task. One week after T1, participants were told that they would take part in an unrelated memory and recall task. On all trials, participants viewed a descriptive sentence about an individual whose gray-scaled image was above the sentence (e.g., This person always carries a pocket knife) and who was always a Black male selected from the Chicago Face Database (Ma, Correll, & Wittenbrink, 2015). After completing one control practice trial, participants completed 16 trials: eight stereotypical trials and eight control trials. The eight stereotypical sentences were rated as more stereotypical of Blacks ($M = 4.04$, $SD = 1.47$) than the eight control sentences ($M = 2.97$, $SD = 1.14$), $t(25) = 4.07$, $p < .001$, $d_z = 0.84$, 95% CI = [0.53, 1.63], by a sample of 26 White MTurk workers in exchange for US\$0.10.

During each trial, participants viewed the sentence and image for 3,000 ms before being presented with five probes presented one at a time, and their task was to indicate, as quickly as possible, if the word was in the sentence or not by pressing a corresponding key. On stereotypical trials, these probes included a neutral irrelevant word which was not in the sentence (e.g., watch), two neutral words that were in the sentence (e.g., carries, pocket), the stereotypical word that was in the sentence (e.g., knife), and the fifth was a stereotypical word relevant to the sentence, but which was not included in the sentence (e.g., violent). On control trials (e.g., This person likes to play golf on the weekends), the probes included a neutral irrelevant word which was not in the sentence (e.g., tennis), three neutral words that were in the sentence (i.e., play, golf, weekends), and a fifth word which was relevant to the sentence, but which was not included in the sentence (e.g., retired). As such, stereotypical trials included three neutral probes, a stereotype-present probe (e.g., knife), and a stereotype-absent (e.g., violent) probe, while control trials included five neutral probes. The order of the probes was randomized as was the order of the trials. Reaction times to incorrect responses were removed, as were responses less than 200 ms or greater than 3,000 ms. This task was adapted from probe recognition tasks (Ham & Vonk, 2003; Latu, 2010) as a measure of behavioral inhibition to stereotypes.

T2 rumination. Participants were asked to respond to four items, such as “Over the last week, how often did you find yourself . . .,” “feeling negatively about the experience you had in the lab,” and “feeling guilty about the experience you had in the lab” on a scale from 1 (*not at all*) to 7 (*all of the time*; $\alpha = .89$).

T2 suppression of prejudice. Participants completed five items regarding suppression of prejudice in the last week on items such as “Over the last week, I avoided using racial stereotypes” and “Over the last week, when describing someone I know to a friend, I avoided mentioning his or her race” (modified from Crandall et al., 2002) on a scale from 1 (*not at all/never*) to 7 (*very much/always*; $\alpha = .79$).

T2 egalitarian motivation. Participants completed three items regarding an egalitarian motivation, including “Over the last week, I focused on being egalitarian,” and “Over the last week, I thought about being an egalitarian person,” on a scale from 1 (*not at all*) to 7 (*very much*; $\alpha = .80$).

Results and Discussion

Initial analyses were conducted using a 2 (Condition: confronted, control) \times 4 (Experimenter) ANOVA for affect. Neither main effect of experimenter nor an interaction of these factors was discovered, $F_s < 1.48$, $p_s > .23$. As such, all following analyses were conducted without experimenter as a factor.

T1 stereotype application. To ensure no baseline differences in stereotype use, an independent-samples t test was conducted on participants' stereotype use during the initial stereotyping task. There was no effect of condition on stereotypes used during the initial task (which happened before any confrontation; $M_{\text{control}} = 2.35$, $SD = 0.83$; $M_{\text{confront}} = 2.28$, $SD = 0.70$), $t(91) = 0.42$, $p = .68$, 95% CI = $[-0.25, 0.39]$.

Participant responses to confrontation. Using the same coding procedures as in Study 1, 20 (46.5%) agreed with the confrontation, either by nodding their head or verbally, 11 (25.6%) participants did and said nothing, 10 (23.3%) made an excuse, and two (4.7%) laughed.

T1 affect. Being confronted resulted in significantly greater feelings of neg-self affect ($M = 2.38$, $SD = 1.24$) and neg-other affect ($M = 1.30$, $SD = 0.79$) compared with not being confronted ($M_{\text{negself}} = 1.50$, $SD = 0.64$; $M_{\text{negother}} = 1.00$, $SD = 0.00$), $t_s(91) > 2.71$, $p_s < .008$, $d_s > 0.52$, 95% CIs $[> -1.22, < -0.08]$.

T2 behavioral inhibition. If confronted participants only engage in behavioral inhibition when presented with a stereotypical word, they should respond slower only to stereotypical probes in stereotypical trials. However, if confronted participants engage in behavioral inhibition when faced with stereotypical cues more generally, then they should respond slower for all probes in stereotypical trials compared with control trials. Critically, behavioral inhibition more generally would be indicative of greater efforts to reduce stereotype application and prejudice.

Analyses are first presented on stereotypical trials by condition and probe type and then compared stereotypical trials with control trials by condition to determine whether confronted participants demonstrated behavioral inhibition only on stereotypical probes or on stereotypical trials in general. Notably, five participants had an overall accuracy less than 50% and were thus removed from the analyses.

T2 stereotypical trial analyses by probe type. Accuracy on probe tasks is often very high (e.g., Ham & Vonk, 2003), and thus, while we did not anticipate a significant effect of condition on accuracy (ratios), we first conducted preliminary analyses for participants' accuracy on stereotypical trials (i.e., those sentences meant to evoke stereotypes) by probe type and condition. As expected, a 2 (Condition: confront, no confront) \times 3 (Probe: stereotype-absent, stereotype-present, neutral) mixed ANOVA with a within-subject probe factor revealed no significant effects for probe, $F(2, 136) = 2.49$, $p = .09$, $\eta_p^2 = 0.07$, condition $F(1, 68) = 1.36$, $p = .25$, $\eta_p^2 = 0.02$, or the Probe \times Condition interaction, $F(2, 136) = 1.76$, $p = .18$, $\eta_p^2 = 0.03$. Indeed, all participants were highly accurate on stereotype-absent probes ($M = 0.95$, $SD = 0.12$), stereotype-present probes ($M = 0.97$, $SD = 0.06$), and neutral probes ($M = 0.95$, $SD = 0.10$).

Table 1. Study 2: Means and Standard Deviations for Stereotypical Trial Latencies by Condition and Probe Type.

	Confront	Control	<i>t</i>	<i>p</i>	95% CI
Stereotype-absent probe	843.38 (183.79)	734.84 (120.54)	2.98	.004	[35.87, 181.21]
Stereotype-present probe	788.87 (161.33)	711.53 (107.73)	2.40	.02	[13.12, 141.57]
Neutral probes	923.25 (148.17)	816.74 (118.17)	3.16	.002	[36.92, 163.71]

Note. Standard deviations in parentheses. CI = confidence interval.

Next, an identical 2×3 ANOVA for latency was conducted on the stereotypical trials to assess whether confronted individuals demonstrated slower reaction times to stereotype probes. Results revealed a significant main effect of condition, $F(1, 68) = 11.05, p = .001, \eta_p^2 = 0.14, 95\% \text{ CI} = [38.96, 155.98]$. Consistent with hypotheses of behavioral inhibition to stereotypical cues more generally, participants who were confronted responded significantly slower on stereotypical trials overall ($M = 851.84, SD = 148.47$) than participants who were not confronted ($M = 754.37, SD = 103.41$), indicating confronted participants were “putting on the brakes” when presented with stereotypical cues, even 1 week after the confrontation.

The ANOVA also revealed a significant main effect of probe, $F(2, 136) = 37.52, p < .001, \eta_p^2 = 0.36$. Fisher’s Least significant difference (LSD) post hoc analyses revealed that overall participants responded significantly quicker to stereotype-absent probes ($M = 789.11, SD = 159.17$) than neutral probes ($M = 869.99, SD = 141.20$), $p < .001, 95\% \text{ CI} = [54.47, 107.29]$ but significantly slower to stereotype-absent probes than to stereotype-present probes ($M = 750.20, SD = 137.79$), $p = .02, 95\% \text{ CI} = [6.55, 71.27]$. Furthermore, participants responded to stereotype-present probes significantly quicker than to neutral probes, $p < .001, 95\% \text{ CI} = [94.63, 144.96]$. Although the longest latencies occur on neutral probes, we suspect that this is due to these probes not serving as key words. Specifically, these words did not inherently carry great importance within the context (e.g., pocket, carries) and, as such, were likely not deeply encoded for participants, leading to longer latencies overall (see Table 1 for descriptive statistics and simple effect tests of probe type by condition).

Finally, the Probe \times Condition interaction, $F(2, 136) = 0.77, p = .47, \eta_p^2 = 0.01$, was not significant. As the condition effect occurred across probe type, these findings are indicative of behavioral inhibition to stereotypical cues generally because confronted participants demonstrated an overall slowdown when presented with a stereotypical trial, not merely in the presence of a stereotypical probe.

T2 stereotypical versus control trial analyses. To ensure this “brake” effect was only on stereotypical trials, and not merely a result of confronted participants slowing down on the entire task, we conducted 2 (Condition: confront, no confront) \times 2 (Trial: stereotypical, control) mixed ANOVAs with a within-subject trial factor for participants’ accuracy and

latency. Because the control trials did not include stereotype probes, we cannot examine probe type for these analyses. Critically, behavioral inhibition in the presence of stereotypical cues generally should be evidenced by confronted participants demonstrating slower responses on stereotypical trials than on control trials. Based on ceiling effect of accuracy on stereotypical trials, we did not anticipate any conditional effects for accuracy.

The 2×2 ANOVA for accuracy revealed an unexpected significant effect of trial type, $F(1, 68) = 4.78, p = .03, \eta_p^2 = 0.07, 95\% \text{ CI} = [0.004, 0.092]$, such that participants were significantly more accurate on stereotypical trials ($M = 0.95, SD = 0.09$) than on control trials ($M = 0.90, SD = 0.21$) indicating that, in general, participants seemed to be attending to stereotypical trials more carefully. As expected, there was no main effect of condition, $F(1, 68) = 0.28, p = .60, \eta_p^2 = 0.004$, and no significant Condition \times Trial interaction $F(1, 68) = 0.12, p = .74, \eta_p^2 = 0.002$.

Notably, the 2×2 ANOVA for latency revealed no main effect of trial, $F(1, 68) = 2.02, p = .16, \eta_p^2 = 0.03$, a significant main effect of condition, $F(1, 68) = 7.85, p = .007, \eta_p^2 = 0.10, 95\% \text{ CI} = [22.59, 134.42]$, and, as expected, a significant Condition \times Trial interaction, $F(1, 68) = 3.92, p = .052, \eta_p^2 = 0.05$. Simple effect analyses revealed that among participants who had been confronted at T1, latencies on stereotypical trials ($M = 876.13, SD = 148.47$) were significantly slower than latencies for control trials ($M = 841.11, SD = 129.85$), $F(1, 30) = 4.22, p = .049, \eta_p^2 = 0.12, 95\% \text{ CI} = [0.22, 69.82]$. Moreover, this effect was not significant for participants who were not confronted at T1, $F(1, 38) = 0.21, p = .65, \eta_p^2 = 0.01, 95\% \text{ CI} = [-30.83, 19.38]$, ($M_{\text{stereotypical}} = 777.26, SD = 16.74; M_{\text{control}} = 782.99, SD = 18.56$). Furthermore, confronted participants were significantly slower when responding to stereotypical trials compared with nonconfronted participants’ responses to control trials, $t(68) = 1.98, p = .052, d = 0.48, 95\% \text{ CI} = [-0.05, 116.83]$, and stereotypical trials, $t(68) = 2.28, p = .03, d = 0.55, 95\% \text{ CI} = [7.96, 119.74]$. Thus, as expected, confronted participants engaged in behavioral inhibition in the face of stereotypical cues 1 week after a confrontation.

T2 rumination. As predicted, participants who were confronted at T1 reported ruminating about it more over the week ($M = 2.73, SD = 1.45$) than participants who were not confronted ($M = 1.44, SD = 0.84$), $t(73) = 4.00, p < .001, d = 0.941, 95\% \text{ CI} = [-1.60, -0.54]$.

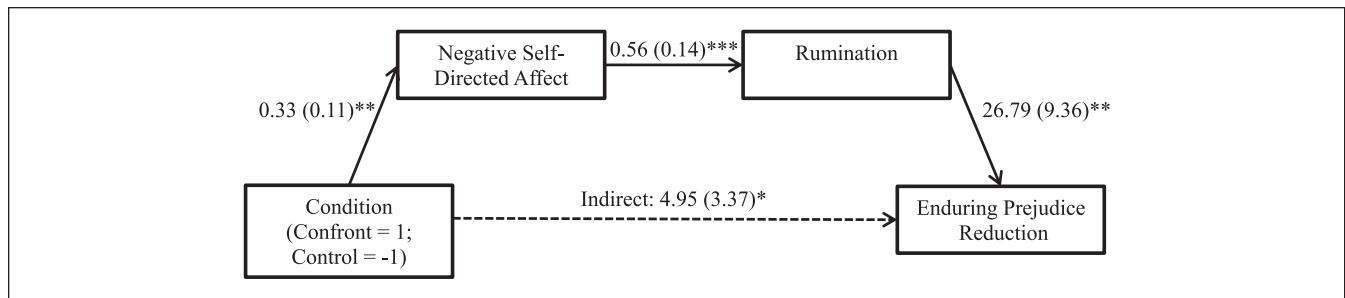


Figure 2. Study 2: Serial mediation model for the effect of confrontation on enduring prejudice reduction via negative self-directed affect and rumination.

* $p < .05$. ** $p < .01$. *** $p < .001$.

T2 prejudice suppression. Participants who were confronted at T1 reported greater suppression of prejudice over the course of the week ($M = 4.87$, $SD = 1.26$) than participants who were not confronted ($M = 3.83$, $SD = 1.46$), $t(73) = 3.27$, $p = .002$, $d = 0.76$, 95% CI = $[-1.68, -0.41]$.

T2 egalitarian motivation. Participants who were confronted at T1 reported greater egalitarian motivation over the course of the week ($M = 4.23$, $SD = 1.76$) than participants who were not confronted ($M = 3.00$, $SD = 1.80$), $t(73) = 2.97$, $p = .004$, $d = 0.69$, 95% CI = $[-2.06, -0.41]$.

Mediation. We conducted a serial mediation in the PROCESS macro examining the effect of Condition (1 = confronted, -1 = control) on a difference score of participants' latency during the stereotypical trials of the T2 behavioral inhibition task compared with the control trials (stereotypical trial latency - control trial latency), across all probe types, through T1 neg-self and T2 rumination (see Figure 2) with a 10,000 bootstrapped sample. Condition significantly predicted T1 neg-self, $B = 0.33$, $SE = 0.11$, $p = .004$, 95% CI = $[0.11, 0.55]$, which in turn significantly predicted T2 rumination, $B = 0.56$, $SE = 0.14$, $p < .001$, 95% CI = $[0.28, 0.84]$, and T2 rumination significantly predicted T2 behavioral inhibition, $B = 26.79$, $SE = 9.36$, $p = .006$, 95% CI = $[8.10, 45.47]$. Furthermore, the indirect effect of condition through T1 neg-self and T2 rumination on T2 behavioral inhibition was significant, $B = 4.95$, $SE = 3.37$, 95% BC-CI = $[0.87, 14.96]$, and the direct effect was no longer significant, $B = 7.63$, $SE = 11.00$, $p = .49$, 95% CI = $[-14.33, 29.60]$. Although an indirect effect through only neg-self was not significant, $B = -2.12$, $SE = 3.58$, 95% BC-CI = $[-11.17, 3.68]$, the indirect effect through only rumination was significant, $B = 9.91$, $SE = 6.19$, 95% BC-CI = $[1.40, 26.02]$. Notably, however, a contrast comparing a model including both neg-self and rumination compared with a model with only rumination did not reveal a significant difference, $B = -4.96$, $SE = 5.47$, 95% BC-CI = $[-18.63, 3.21]$.

To explore other possible mechanisms, we conducted identical analyses switching T2 prejudice suppression and

T2 egalitarian goal motivation for T2 rumination in two separate analyses. The indirect effect of condition on T2 behavioral inhibition was not significant when examining T2 egalitarian motivation as a mechanism, $B = -0.63$, $SE = 1.16$, 95% BC-CI = $[-4.07, 0.95]$, nor was it significant when examining T2 prejudice suppression, $B = 0.06$, $SE = 0.57$, 95% BC-CI = $[-0.71, 1.95]$. Finally, we tested a mediation model in which T2 prejudice suppression, egalitarian motivation, and rumination served as parallel mediators, which revealed that while the indirect effect of condition through T2 rumination was significant, $B = 14.08$, $SE = 8.01$, 95% BC-CI = $[0.35, 31.52]$, neither the indirect effect through T2 prejudice suppression, $B = 3.05$, $SE = 4.21$, 95% BC-CI = $[-2.46, 15.56]$, nor through T2 egalitarian motivation, $B = -3.20$, $SE = 4.14$, 95% BC-CI = $[-14.58, 2.99]$, was significant.

General Discussion

Across two studies, the present article demonstrates, for the first time, that the effects of an interpersonal confrontation endure, such that participants who were confronted used significantly fewer negative stereotypes about Blacks 7 days later (Study 1) compared with those who were not confronted and demonstrated behavioral inhibition when faced with stereotypical cues 7 days later (Study 2). These findings suggest that the effectiveness of confrontations on stereotype reduction is not short-lived and that confrontations may prove effective for reducing stereotype use over time via neg-self affect and prolonged rumination. In the present studies, confronted participants reported greater neg-self affect, leading to prolonged rumination, and ultimately less stereotype application (Study 1) and behavioral inhibition to stereotypes (Study 2) 7 days later.

Notably, confrontations create not only awareness and guilt but also behavioral inhibition and rumination, pivotal components of breaking the prejudice habit (Devine & Monteith, 1993; Monteith, 1993), thus promoting lasting changes to stereotype application and activation (e.g., Devine, Forscher, Austin, & Cox, 2012). This is critical as

confrontation can be implemented day to day *and* allows an external source to create awareness of one's prejudice, making it a viable strategy to reduce prejudice. Specifically, even when individuals freely engage in careful self-reflection of their biases outside of crafted laboratory manipulations (e.g., Should–Would Discrepancy questionnaire; Monteith & Voils, 1998), they typically have a bias blind spot, in which they are better able to detect biases in others than themselves (e.g., Pronin, Lin, & Ross, 2002). As such, individuals are often unable to identify their biases, the key first step in promoting change. Confrontations, however, serve as an external identifier of an individual's bias. Indeed, the present findings indicate that confrontation results in enduring motivation to be egalitarian, as demonstrated by the reported egalitarian motivation (Study 2), and rumination 1 week after the confrontation (Studies 1 and 2).

Also novel to the present research, mediation analyses highlight the importance of rumination on enduring prejudice reduction, specifically rumination of the neg-self affect experienced as a result of the confrontation. Continued rumination, which was predicted by immediate neg-self affect, was the only mechanism in Study 2 predictive of behavioral inhibition. Notably, rumination is often associated with decreased working memory and thus slower response times (Richards & Gross, 2000; Schmader & Johns, 2003), and while prolonged rumination is critical for enduring prejudice reduction, the findings in Study 2 do not reflect merely a loss in working memory as participants' latencies were only slower on stereotypical trials after a confrontation, not the control trials, a pattern of results reflective of general behavioral inhibition. Thus, the present work demonstrates, for the first time, the importance of rumination after confrontation in the implementation of behavioral inhibition for lasting stereotype reduction.

Notably, while confrontation resulted in greater self-reports of egalitarian goal motivation and suppression of prejudice, these were not associated with greater behavioral inhibition (Study 2). These measures are reflective of a motivation to adhere to social norms of egalitarianism, and thus, while they were not significantly associated with behavioral inhibition after a confrontation, they may not engender adequate reflection and self-regulation to identify novel cues for control. We contend that these effects are still beneficial as they are evidence of prolonged, conscious efforts to appear and be more egalitarian 1 week later.

Furthermore, as predicted and in support of past research, confronted participants demonstrated greater negative self- and other-directed affect at T1, compared with participants who were not confronted. Although the means for these measures were low across the studies, they are comparable with other confrontation work (e.g., Czopp et al., 2006). Notably, the confrontation paradigm used in both studies is ideal to examine confrontations in the lab because an unbiased response can easily be identified. However, bias in day-to-day

interactions is often much more ambiguous and complex, and thus, confrontations may not always be internalized, which may ultimately result in more defensive responses from the transgressor. Although defensive responses from transgressors may indeed be problematic in ensuring individuals continue to confront, past research has suggested that even when transgressors report stronger neg-other affect, they continue to show immediate prejudice reduction (Czopp et al., 2006). Thus, while confrontations which elicit minimal defensive reactions and neg-other affect may be most effective in promoting enduring effects, we believe less positive confrontations may do the same but encourage future research on confrontation styles to examine this more carefully. Notably, the confronter in the present research was the experimenter, and thus a potential authoritative figure. Past research has indicated that while authoritative figures who confront stereotypes are perceived positively, the status of the confronter (e.g., teacher versus student) did not significantly affect prejudice reduction (Boysen, 2013). As such, we do not anticipate that the authoritative status significantly influenced the effectiveness of the confrontation, though we encourage future research to examine this question more carefully.

Similarly, the present studies employed White experimenters and White participants, though we did not match for gender. Thus, the findings may be limited to racial ingroup confrontations. Notably, past research on the effect of confronter's race on experienced guilt has not been conclusive, with some evidence that target confronters (i.e., Black confronter of racial bias) create less guilt among Whites accused of racial bias than nontarget confronters (i.e., White confronter; Czopp & Monteith, 2003), while other research has indicated that target confronters produce greater feelings of guilt than nontarget confronters, though confronter race did not ultimately effect prejudice reduction levels (Czopp et al., 2006). As such, we encourage future research to examine how the identity of the confronter and the transgressor work together to affect the endurance of prejudice reduction. Moreover, confrontations of racial bias elicit greater guilt and apologetic behavior than confrontations of gender bias (Czopp & Monteith, 2003), indicating that gender bias confrontation may result in less prejudice reduction overtime. Confrontation of other types of prejudice and prejudice reduction remains an important next step for future research.

Overall, the present research suggests that confronting prejudice may serve as a prejudice reduction tool that reduces racial stereotype use over time and develops cues for control. Furthermore, rumination about the confrontation, especially prolonged negative self-reflection after the confrontation, is critical in developing these lasting effects. Thus, the present research expands the literature on confrontation as a prejudice reduction strategy, providing initial support for the enduring effects of confrontations and highlighting a novel mechanism (i.e., rumination) through which these effects occur.

Declaration of Conflicting Interests

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Supplemental Material

The online supplemental material is available at <http://pspb.sagepub.com/supplemental>.

Notes

1. Leaving in these participants does not significantly alter results.
2. When T1 stereotype use is included as a covariate, the effect of condition remains significant, $F(1, 92) = 47.80, p < .001, d = 1.44$.

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