

LBS Research Online

[A Rattan](#) and C S Dweck

What happens after prejudice is confronted in the workplace? How mindsets affect minorities' and women's outlook on future social relations

Article

This version is available in the LBS Research Online repository: <https://lbsresearch.london.edu/id/eprint/921/>

[Rattan, A](#) and Dweck, C S

(2018)

What happens after prejudice is confronted in the workplace? How mindsets affect minorities' and women's outlook on future social relations.

Journal of Applied Psychology, 103 (6). pp. 676-687. ISSN 0021-9010

DOI: <https://doi.org/10.1037/apl0000287>

American Psychological Association

<http://psycnet.apa.org/record/2018-09740-001>

Users may download and/or print one copy of any article(s) in LBS Research Online for purposes of research and/or private study. Further distribution of the material, or use for any commercial gain, is not permitted.

What Happens After Prejudice is Confronted in the Workplace?

How Mindsets Affect Minorities' and Women's Outlook on Future Social Relations

Aneeta Rattan
London Business School
Regent's Park
London, NW1 4SA
United Kingdom
arattan@london.edu

Carol S. Dweck
Stanford University
450 Serra Mall
Stanford, CA 94305
United States of America
dweck@stanford.edu

**This article may not exactly replicate the authoritative document published in the
APA journal. It is not the copy of record.**

What Happens After Prejudice is Confronted in the Workplace?

How Mindsets Affect Minorities' and Women's Outlook on Future Social Relations

Abstract

Organizations are increasingly concerned with fostering successful diversity. Toward this end, diversity research has focused on trying to reduce prejudice and biased behavior. But what happens when prejudice in the workplace inevitably occurs? Research also needs to focus on whether recovery and repair of social relations after incidents of prejudice are possible. To begin investigating this question, we develop a new framework for understanding reactions to prejudice in the workplace. We hypothesized that when women and minorities choose to confront a prejudiced comment in a workplace interaction (vs. remain silent) and hold a growth (vs. fixed) mindset — the belief that others can change — they remain more positive in their subsequent outlook in the workplace. Studies 1a, 1b, and 2 used hypothetical workplace scenarios to expose participants to someone who expressed bias; Study 3 ensured real-world relevance by eliciting retrospective accounts of workplace bias from African American employees. Across studies, women and minorities who confronted the perpetrator of prejudice exhibited more positive subsequent expectations of that co-worker when they held a growth mindset. Importantly, these more positive expectations were associated with reports of greater workplace belonging (Study 2), ratings of improved relations with co-workers who had displayed bias (Study 3), and greater workplace satisfaction (Studies 2-3). Thus, a growth mindset contributes to successful workplace diversity by protecting women's and minorities' outlook when they opt to confront expressions of bias.

Keywords: diversity, mindsets, prejudice confrontation, workplace bias

INTRODUCTION

Increasing workplace diversity (Tossi, 2012) raises the challenge of how to maintain positive relations between members of different social groups in organizations (Gelfand, Nishii, Raver, & Schneider, 2005). To date, efforts have focused on minimizing stereotyping and prejudice in the workplace through diversity trainings (Bezrukova, Jehn, & Spell, 2012; Cocchiara, Connerly, & Bell, 2010; Kalev, Dobbin, & Kelly, 2006), reducing stereotypical cues in the context, (Ely, Padavic, & Thomas, 2012; Murphy, Steele, & Gross, 2007; Roberson & Kulik, 2007; Steele & Aronson, 1995; Walton, Murphy, & Ryan, 2015), and promoting positive diversity values among individuals (Plaut, Thomas, & Goren, 2009; Sawyerr, Strauss, & Yan, 2005) and organizations (Ely & Thomas, 2001; Thomas & Ely, 1996; Shore, et al., 2009). What happens when, despite all efforts, things go wrong and someone exhibits overt bias in an everyday workplace interaction? Positive relations in the workplace may depend on these essential types of prejudice reduction efforts aimed at perpetrators of bias *and* on an understanding of how those targeted by bias at work can effectively cope. We suggest that this latter issue of what happens, and whether it is possible to recover, after prejudice in the workplace has been understudied in organizational and social psychological diversity literatures.

We must address this gap because, despite social progress, negatively stereotyped groups still face overt bias in everyday interactions (as often as every few weeks, Swim, Hyers, Cohen, & Ferguson, 2001; Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003; also see microaggressions, Sue, 2010; identity abrasions, Ely, Meyerson, & Davidson, 2006). When starting a job, meeting new coworkers, working with clients, or interacting with team members or supervisors, women and minorities report experiences of overt bias such as being told their groups do not belong in higher ranks of organizations, hearing negative group stereotypes, or being the target of slurs,

objectification, and derogatory terms (Deitch et al., 2003; Dixon, Storen, & Van Horn, 2002). Organizations are unequivocally responsible for addressing biased behavior at work; targets should never be burdened with resolving such issues for organizations. However, targets of prejudice are active responders to bias (rather than passive recipients, Shelton, 2000), and given that they receive the direct offense and stand to directly suffer the negative consequences of this experience we suggest that it is also essential to understand their responses.

We propose a framework for understanding what happens after expressions of prejudice in the workplace. We contend that the first critical factor to consider is how stigmatized individuals respond in the moment to expressions of prejudice – whether they confront or remain silent. We theorize that it is possible for prejudice confrontation to engender a more positive subsequent outlook on the person who expressed prejudice and, therefore, to benefit stigmatized individuals' belonging and workplace satisfaction. However, we argue that this will occur only when prejudice confrontation coincides with a growth mindset (the belief that people can change). In this way, we theorize that the combination of prejudice confrontation and a growth mindset may afford women and minorities opportunities to more effectively cope with experiences of prejudice at work (Trawalter, Richeson, & Shelton, 2009).

The Confronting of Prejudice. While other responses may occur later (e.g., reporting to a supervisor or HR), stigmatized individuals have two immediate behavioral response options: communicating disagreement with the biased statement or remaining silent (Ashburn-Nardo, Morris, & Goodwin, 2008; Chaney, Young, & Sanchez, 2015; Shelton, Richeson, Salvatore, & Hill, 2006; Swim & Hyers, 1999). We refer to speaking up to communicate disagreement as “confronting prejudice,” regardless of tone (e.g., friendly, matter of fact, emotional). Those targeted by prejudice consistently report wanting to confront, but their behavior is often

constrained by situational factors (e.g., potential costs, Shelton & Stewart, 2004; a public context, Stangor, Swim, Van Allen, & Sechrist, 2002; power dynamics, Woodzicka & LaFrance, 2001; 2005) or by relatively stable individual differences (e.g., lower hardiness, Foster & Dion, 2004; lower optimism, Kaiser & Miller, 2001, 2004; lower trait activism, Hyers, 2007; Swim & Hyers, 1999). Yet, expressing their disagreement through confrontation benefits those targeted by bias, reducing reoccurrence (Blanchard, Crandall, Brigham, & Vaughn, 1994; Czopp & Monteith, 2003; Czopp, Monteith, & Mark, 2006; Mallett & Wagner, 2010) and negative self-directed emotion after experiences of prejudice (Shelton, et al., 2006). As confrontation is a desired and potentially effective response to overt bias among targets of prejudice in the workplace, we suggest it bears greater investigation. Specifically, we propose that prejudice confrontation may benefit women's and minorities' subsequent outlook in the workplace, but only when those who confront have a growth (rather than fixed) mindset.

Mindsets. Research shows people fall along a continuum from believing that people are malleable and can develop over time, a “growth” or “incremental” mindset, to believing that people cannot change, a “fixed” or “entity” mindset (Chiu, Hong, & Dweck, 1997; Dweck, 1999). Mindsets (Dweck, Chiu, & Hong, 1995; Plaks, Levy, & Dweck, 2009) are fundamental assumptions about how people and the world work and they can function as the core of meaning systems (Hong, Chiu, Dweck, Lin, & Wan, 1999; Weiner, 1985; Weiner, Heckhausen, & Meyer, 1972) to shape goals, perceptions, and reactions in intergroup contexts (Rattan & Georgeac, 2017a, 2017b). A growth (vs. fixed) mindset orients people toward learning about diverse others (Carr, Dweck, & Pauker, 2012; Neel & Shapiro, 2012), seeking more information about outgroups (Levy, Stroessner, & Dweck, 1998), and making less global judgments (Levy & Dweck, 1999; Plaks, Stroessner, Dweck, & Sherman, 2001; Rattan & Dweck, 2010). A growth

mindset can also increase engagement, particularly among women and minorities, in organizational settings (Emerson & Murphy, 2015; Heslin, Latham, & VandeWalle, 2006). Past research has also found that holding more of a growth mindset increases the likelihood that minority students will confront a peer who has made prejudiced statements (despite no difference across the mindset dimension in how offensive they find the statements to be) and their openness to possible future interactions (Rattan & Dweck, 2010).

Integrating theories of self-perception (Bem, 1972; Fazio, Zanna, & Cooper, 1977) with research on mindsets (Dweck, 1986), we theorize that stigmatized individuals' mindsets shape the conclusions they draw from their confrontation of a biased statement. We theorize that those holding growth mindsets may see their action of prejudice confrontation as a starting point or catalyst for change on the part of the perpetrator of bias, and their meaning system predisposes them to expect follow through. Thus, we predict those who confront prejudice and hold a growth (vs. fixed) mindset will exhibit a relatively less negative outlook on future interactions with the person who expressed bias, and therefore better belonging and satisfaction in the workplace. Those who hold fixed mindsets should also engage in self-perception processes, but from this perspective someone who communicates bias will remain similarly biased even if confronted. Confrontation from the fixed mindset may chiefly represent expressing one's disagreement. As a result, the fixed mindset should not predispose people toward a more positive subsequent outlook after speaking out. When individuals do not confront, those with a growth mindset observe that they have sent no signals indicating change is necessary (or explanations as to why). Thus, remaining silent may equally signal an expectation of behavioral consistency for the person who expressed bias to both growth and fixed mindsets. We thus theorize that those who hold growth and fixed mindsets and do not confront will be similarly unlikely to expect improvement or to

improve their subsequent outlook. We note that we do not suggest that either perspective is more right, but only that each perspective will have differential consequences. This research takes a novel approach by predicting and testing, for the first time, the differential effects of growth mindsets depending upon behavior. Previous work documenting main effects of growth mindsets on expected improvement in others has been in contexts with established feedback-giving structures (Heslin et al., 2005; Heslin et al., 2006; Rattan, Good, & Dweck, 2012), which will not always be the case in situations, like this one, where mindsets may matter. Thus, this work contributes to identifying a critical boundary condition on the benefits of a growth mindset.

Overview of Studies. Four studies use diverse participant samples and methods to test the predicted interaction of stigmatized employees' confrontation of prejudice and their mindsets. In all studies, participants engaged with an incident of everyday workplace bias, indicated a response, and reported on their subsequent outlook. We consider two facets of stigmatized individuals' subsequent outlook. Our primary focus is on their outlook on the person who expressed prejudice (e.g., do they expect more positive or equally negative interactions in the future?). We measure the positivity of targets' outlook on perpetrators of bias both indirectly, testing surprise at someone failing to change (Study 1a), and directly in terms of perceptions of someone as changed (Study 1b, 2, 3) and positivity toward the perpetrator (Studies 2-3). In addition, we investigate stigmatized individuals' outlook on the workplace more generally. We test this by assessing their workplace satisfaction (Studies 2-3) and sense of belonging (Study 2).

Specifically, Studies 1A and 1B exposed women and minorities to a scenario of workplace prejudice and measured confrontation intentions, mindsets, and their subsequent outlook. Study 2 experimentally manipulated women employees' confrontation and mindsets to test for causal effects on their subsequent outlook. Manipulating bias in a real workplace would

be impossible, so Study 3 offers real-world evidence of these processes using a correlational design. A national sample of African American employees provided retrospective accounts of workplace bias and how they responded, and reported their mindsets and outlook on the person who expressed prejudice and on the workplace. Across studies, the primary hypothesis was that an interaction would emerge between confrontation and mindsets such that stigmatized individuals who confront bias and hold a growth mindset would have more positive expectations of the transgressor than those who hold fixed mindsets and confront or growth mindset individuals who did not confront. We also predicted that stigmatized individuals who did not confront bias would have equally negative expectations, regardless of their mindsets.

STUDY 1A & B

These initial correlational studies employ a classic expectancy violation vs. confirmation methodology from person perception (Bettencourt, Dill, Greathouse, Charlton, & Mullholland, 1997; Cloutier, Gabrieli, O'Young, & Ambady, 2011; Jackson, Sullivan, & Hodge, 1993; Mendes, Blascovich, Hunter, & Lickel, 2002) and mindset (Molden, Plaks, & Dweck, 2006; Plaks & Stecher, 2007; Plaks, Stroessner, Dweck, & Sherman, 2001) research.

METHODS

In both Study 1A and 1B, participants had at least one social identity (i.e., racial/ethnic or gender) targeted by the biased statement (detailed below). Data were collected in a once-per-term multi-study session (which presented different researchers' surveys in random order) administered by the psychology department at a private university in the southwestern U.S. We collected and analyzed one survey per cycle. Participants received course credit for participation.

Study 1A Participants. Eighty-one undergraduates (39 male, 42 female; *mean age*=18.88 years, *SD*=.92; 11 African Americans, 30 Asian Americans, 6 Hispanic/Latino Americans, 19 White Americans, 15 multiracial) participated.

Study 1B Participants. Fifty-eight undergraduates (13 male, 45 female; *mean age*=19.07 years, *SD*=1.07; 11 African Americans, 20 Asian Americans, 7 Hispanic/Latino Americans, 17 White Americans, 3 multiracial) participated.

Study 1A & 1B Procedure. Participants completed a standard, validated 6-item measure of mindsets that assessed beliefs about the malleability of people's fundamental characteristics, core beliefs, and personalities¹ (e.g., "Everyone, no matter who they are, can significantly change their basic characteristics," and reverse-coded, "Someone's personality is a part of them that they can't change very much,"; Study 1A α =.94, Study 1B α =.93, 1 "strongly disagree"–6 "strongly agree," Dweck, 1999). Next a filler questionnaire requested demographic information.

Participants then read a scenario describing an experience of workplace prejudice: they had received an exciting summer internship at a prestigious company, which might lead to a full-time job. They imagined going for coffee with the other new interns when the conversation turned to initial impressions of the company and a White male intern they were speaking one-on-one to said, "I'm really surprised at the types of people who are working here . . . with all of this 'diversity' hiring—women, minorities, foreigners, etc., I wonder how long this company will stay on top?" Previous work confirms that this statement is perceived as overt bias, and equally so, by minorities and women and across the range of mindsets (from Rattan & Dweck, 2010).

*Immediate response options*². Participants had one option for expressing disagreement, the confronting item: "I would calmly but firmly communicate my point of view to try to educate him," which was embedded among 4 items indicating only that participants would remain silent

(e.g., “I would ignore it,” Rattan & Dweck, 2010). Measures used a 7-point scale ranging from 1, “not at all,” to 7, “extremely.” Next, the procedures of Studies 1A and 1B diverged.

To minimize demand, Study 1A was a violation of expectations paradigm. Participants next read that the perpetrator’s behavior had not changed, “Imagine that it is a few weeks later. You see the intern who made the statements...talking on the phone, and he is reiterating the comments that he made before.” Then, we asked participants, “How surprised would you feel?”

In Study 1B, we gave participants the opposite information about what followed a few weeks later. Participants read, “He is now expressing how much he enjoys the workplace. You even hear him say, ‘I think I might have been quick to judge at first. I mean, I’m learning so much from so many different kinds of people that now I can see why this company values diversity.’” We indicated this was an overheard phone conversation to reduce participants’ suspicion that the coworkers’ statement was made disingenuously. Study 1B assesses expectancy confirmation and so directly measured participants’ belief that the perpetrator had really changed with three items: “How much would you believe that he really means what he has said?” “How much do you think his attitudes have really changed?” and “How much would you want to interact with him going forward in the summer?” (1, “not at all,”–7, “extremely,” $\alpha=.84$).

RESULTS

Outcomes were regressed on mean-centered mindset (higher scores=growth), mean-centered confrontation (higher scores=confrontation) and the interaction (Aiken & West, 1991).

Study 1A Results. According to violation-of-expectations paradigms, participants should exhibit surprise at the intern reiterating his comments, insofar as they held a positive outlook after their response. As hypothesized, a significant confrontation by mindset interaction emerged, $B=.27$, $se=.13$, $t(77)=2.03$, $p=.046$ (Table 1 has means, standard deviations, and correlations,

Table 2 has regression results). The key simple slopes showed that among confronters, those with more of a growth mindset reported significantly greater surprise that the intern reiterated his biased beliefs than those with more of a fixed mindset, $B = .85$, $se = .29$, $t(77) = 2.92$, $p = .005$. Those who did not anticipate confronting exhibited relatively lower surprise and did not differ by mindsets, $B = -.009$, $se = .32$, $t(77) = -.03$, $p = .98$. We can also note that, among those with growth mindsets, confronters showed marginally greater surprise than non-confronters, $B = .36$, $se = .19$, $t(77) = 1.89$, $p = .06$, while fixed mindset participants showed no differences as a function of their anticipated reaction, $B = -.14$, $se = .17$, $t(77) = -.84$, $p = .40$ (see Figure 1).

Study 1B Results. In this study, the question was who would believe apparent evidence of reform (Table 3 has means, standard deviations, and correlations, Table 4 has regression results). The predicted interaction between confrontation and mindset was marginal, $B = .16$, $se = .094$, $t(54) = 1.76$, $p = .08$ (see Figure 2). Analyses of the key simple slopes found that, among confronters, growth mindset participants believed the change significantly more than fixed mindset participants, $B = .98$, $se = .09$, $t(54) = 5.59$, $p < .001$. Among those who were relatively less likely to report confronting, mindset also had a significant effect, $B = .49$, $se = .23$, $t(54) = 2.11$, $p = .04$. We also note that growth mindset participants who anticipated confronting more reported a significantly greater belief in the coworker's change, compared to those who anticipated confronting less, $B = .27$, $se = .13$, $t(54) = 2.03$, $p = .047$. More fixed mindset participants showed the same, relatively lower, trust in the peer's change, regardless of the degree to which they reported confronting, $B = -.05$, $se = .13$, $t(54) = -.37$, $p = .71$.

DISCUSSION

Studies 1A and 1B offer initial evidence for the hypothesized interaction. In Study 1A, a higher likelihood of confronting and more growth mindset engendered greater surprise at the co-

intern's repeated bias. In Study 1B, those who wanted to confront more and held a more growth mindset found the co-intern's change most credible. Across studies, regardless of anticipated confrontation, more fixed mindset participants showed equally negative outlooks after bias, suggesting that fixed mindsets may pose an impediment to repairing workplace social relations after bias.

STUDY 2

Study 2 manipulated the confronting of prejudice and mindsets to test for causality with a sample of employed women. We also explored potential consequences for women's workplace outlook more broadly by measuring anticipated sense of belonging and workplace satisfaction.

METHODS

Participants³. Women (N=227) on mTurk completed the study. Exclusion criteria were failing a manipulation check (n=14), being an extreme outlier (± 3 SD) on offensiveness of the sexist statement (n=3), and changing reported gender from the pre-screen to end of study (n=2). The final sample was 210 women (*Mean age*=35.8, *SD*=11.5; 169 White American, 16 African American, 7 Latino American, 3 Native American, 8 Asian American, 7 bi-/multi-racial).

Procedure. After a pre-screen (to include only adult U.S. American women) and informed consent, women read that they would do 2 "unrelated" studies. They were randomly assigned to read an article that was the mindset manipulation, e.g., growth mindset condition: "Personality is changeable and can be developed," fixed mindset condition: "Personality, like plaster, is pretty stable over time," (from Rattan & Dweck, 2010). The articles present stories and scientific evidence to support the target mindset. Participants completed a manipulation check that asked them to describe the main point of the article in their own words. To separate the manipulation and key measures, participants then completed fillers assessing their evaluation of

the article and self-esteem. Next was the “second study.” Women imagined working on a media relations team of a professional services company and encountering a new employee, John, for the first time. They read, “You and John begin discussing his first impressions of the company. After mentioning a few aspects of the position that he likes, **John says ‘You know I’m really surprised at the types of people who are working here. When you get to the top level - a company like this - you expect only the best people here. I mean, I think they must be hiring associates just for diversity reasons. With all the women here, I wonder how long this company will stay on top.’**” Women rated how offensive John’s statement was and next received the confrontation manipulation. The confrontation condition said, “After a moment of silence, you confront John about his statement. You clearly express your disagreement with his comment in a calm but firm voice.” The no confrontation condition said, “After a moment of silence, you do not respond to John about his statement. Although you disagree with his comment, you say nothing.” Participants reported demographics and were debriefed.

Dependent Variables. Three items assessed participants’ subsequent outlook on the coworker: “How do you think that your next interaction with John would be?” (extremely negative “1”–neutral “4”–extremely positive “7”), “Thinking about what he said and your reaction, how much do you like John?” (extremely dislike “1”–neutral “4”–extremely like “7”), and “How much do you think that your reaction changed John’s beliefs (not at all “1”–extremely “7”); $\alpha=.64$). We assessed participants’ subsequent outlook more generally by measuring their anticipated workplace satisfaction (extremely unsatisfied “1”–extremely satisfied “7”) and sense of belonging (3 items, “How much do you feel that you belong in this workplace?” “How comfortable would you feel in this workplace?” “How accepted would you feel in this workplace?” not at all “1”–extremely “7,” $\alpha=.94$, Good, Rattan, & Dweck, 2012).

RESULTS

As hypothesized, a 2 (confrontation vs. no confrontation) X 2 (fixed vs. growth mindset) ANOVA on the standardized composite for positive outlook on the coworker yielded a significant interaction, $F(1, 209)=6.47, p=.01, \eta^2_p=.03$ (see Figure 4). The key pairwise comparisons revealed that in the confrontation condition, participants who were also in the growth mindset condition ($M=.18, se=.10$) exhibited a significantly more positive outlook than participants in the fixed mindset condition ($M=-.09, se=.09$), $F(1, 206)=4.40, p=.04$, 95% CI for difference [.02, .53]. In the no confrontation condition, the mindset manipulation elicited no differences, $F(1, 206)=2.23, p=.14$, 95% CI for difference [-.44, .06]. Supplemental analyses showed that participants in the growth mindset condition exhibited a significantly more positive outlook in the confrontation condition (see mean/se above) than the no confrontation condition ($M=-.26, se=.09$), $F(1, 206)=11.50, p=.001$, 95% CI for difference [.19, .70]. No significant differences in participants' outlook emerged among those in the fixed mindset condition, across confrontation condition $F(1, 206)=.02, p=.89$, 95% CI for difference [-.27, .23].

The 2 (confrontation vs. no confrontation) X 2 (fixed vs. growth mindset) interaction was nonsignificant for women's anticipated workplace satisfaction, $F(1, 205)=.74, p=.29$, and belonging, $F(1, 205)=.22, p=.64$. However, a more positive outlook on the coworker correlated with greater workplace satisfaction, $r=.26, p<.001$, and belonging, $r=.26, p<.001$, so, we tested for conditional indirect effects using Process model 8, 5000 iterations, and 95% confidence intervals (Hayes, 2013). Mindset was the moderator, confrontation the IV, and outlook on the transgressor the mediator. A conditional indirect effect was supported for workplace satisfaction, $index=.12, se(boot)=.6, CI [.03, .25]$. The positive indirect path from confrontation to workplace satisfaction was significant in the growth mindset condition, $bootstrap\ coefficient=.11, se=.05$,

CI [.04, .23] but not supported in the fixed mindset condition, *bootstrap coefficient* = -.004, *se* = .04, CI [-.08, .07]. Similarly, the conditional indirect effect, *index* = .13, *se(boot)* = .06, CI [.03, .28] emerged for women's anticipated workplace belonging. The positive indirect effect of confrontation condition on belonging through positive outlook on the transgressor was supported in the growth mindset condition, *bootstrap coefficient* = .13, *se* = .05, CI [.04, .26] but not in the fixed mindset condition, *bootstrap coefficient* = -.005, *se* = .04, CI [-.08, .08].

DISCUSSION

Study 2 offers experimental support of our hypothesis: women in the confrontation and growth mindset condition exhibited a more positive subsequent outlook on the co-worker who expressed sexism. It also highlights why exploring stigmatized employees' outlook following bias may be particularly important. This more positive outlook afforded by a growth mindset and confrontation led to a relatively greater sense of belonging and workplace satisfaction.

STUDY 3

Ensuring the relevance of the present research for real employees and organizations is essential. Therefore, we next recruited retrospective accounts of bias, their responses, and beliefs about the transgressor from a field sample of African American employees.

METHODS

Participants. Ninety-eight African American adults were recruited in the U.S. through a paid online survey panel, Survey Sampling International (SSI). All participants held at minimum a college degree and were employed full time (28 male, 68 female, 2 unreported; *mean age* = 41.08 years, *SD* = 12.21; *mean workplace tenure* = 8.39 years, *SD* = 7.89, and *modal salary* = \$41,000-\$60,000. Twenty-one participants described their employment as a small business, 30 as a mid-sized company, 46 as a large corporation, and 1 did not report company size.

Procedure. After a demographics questionnaire and the 8-item mindset scale ($\alpha=.8$), participants were asked to recall and describe their most recent experience with explicit prejudice in their workplace. We defined “explicit prejudice” as statements that, to them, clearly expressed bias toward one of their social groups (e.g., race, gender, socioeconomic status). Participants were asked to describe the incident and their reaction in detail. Measures used 9-point scales (not at all “1”–extremely “9”) unless otherwise noted.

Dependent Variables. To ensure participants described relatively equivalent experiences, they rated in the moment how offensive the comment was to them, negative emotions toward the perpetrator (e.g., angry, 4 items, $\alpha=.64$), negative self-directed emotions (e.g., self-critical, 8 items, $\alpha=.71$), how public vs. private the situation was, and perceived professional risk. To measure positive outlook toward the person who expressed bias, participants rated, “How much do you think that your reaction changed this individual’s beliefs?” To assess whether such experiences related to participants’ broader outlook on the workplace context, they rated their day-to-day interactions with the person who expressed bias (very negative “1”–neutral “5”–“very positive” 9) and how much they liked her/him ($\alpha=.93$), and overall workplace satisfaction.

RESULTS

Free Response Coding. To qualify for further analysis, the description had to relate an instance of bias directly expressed to the participant and relevant to one of their demographic characteristics (as indicated at the survey start). The two independent coders (a White male and an Asian female) who were blind to participant mindset achieved adequate reliability ($\kappa=.7$) and then discussed and resolved disagreements in person. The majority of the African American employees surveyed (67%) reported a qualifying experience. Thus, the final sample was 66 of

the 98 participants (18 male, 47 female, 1 unreported; $mean\ age=41.5$, $SD=12.24$). Common descriptions included derogatory racial names and being mocked based on group stereotypes.

The coders next coded qualifying responses as showing confrontation (1) or not (-1). Verbally expressed disagreement with the biased statement was coded as confrontation (52%). The coders achieved adequate reliability ($\kappa=.9$) and then discussed and resolved disagreements.

Dependent Variables. The variable of interest was regressed on mean-centered mindset, coded confrontation, and their interaction. There were no significant interactions for ratings of offensiveness, negative self- or other-directed emotions, perceived risk, or the public vs. private nature of the situation (Table 5 has means, standard deviations, correlations; Table 6 has regression results), suggesting the incidents were comparable on these dimensions.

The hypothesized interaction, $B=.56$, $se=.26$, $t(62)=2.15$, $p=.036$ (see Figure 4) emerged. Among confronters, African American employees who held a more growth (vs. fixed) mindset viewed their behavior as having a greater impact on their co-worker's beliefs, $B=.71$, $se=.36$, $t(62) = 1.95$, $p = .056$. Those who did not confront showed no differences by mindset, $B=-.41$, $se=.37$, $t(62)=-1.11$, $p=.27$. Additional analyses again showed that those who held more of a growth mindset had significantly more positive expectations after confronting than not confronting, $B=1.12$, $se=.41$, $t(62)=2.73$, $p=.008$, and that confrontation versus not had no effect on the responses of employees who held more fixed mindsets, $B=-.13$, $se=.41$, $t(62)=-.32$, $p=.75$.

The confrontation by mindset interaction was not significant for current attitudes toward the person who expressed bias, $B=.08$, $se=.197$, $t(62)=.402$, $p=.69$, or workplace satisfaction, $B=.034$, $se=.23$, $t(62)=.147$, $p=.88$, but perceived change correlated with more positive interpersonal attitudes, $r=.50$, $p<.001$, and higher workplace satisfaction, $r=.28$, $p=.02$. Thus, we again tested for evidence of conditional indirect effects using Process, Model 8, 95% CI, and

5000 bootstrap iterations (Hayes, 2013). Mindset was the moderator, confronting the IV, and perceptions of change the mediator. The results supported conditional indirect effects for both participants' current attitudes toward the person who expressed prejudice, $index=.20$, $se(boot)=.12$, CI [.02, .53] and workplace satisfaction, $index=.13$, $se(boot)=.10$, CI [.002, .42] (Table 8). The indirect effect of confrontation through perceptions of change was only supported among more growth mindset participants, current interpersonal attitudes, $bootstrap\ coefficient=.41$, $se=.20$, CI [.10, .90], workplace satisfaction, $bootstrap\ coefficient=.27$, $se=.18$, CI [.02, .74], all other CIs crossed 0 (see Table 8).

DISCUSSION

In this field sample, African American employees who chose to confront and held a more growth mindset most reported believing their response changed the person who expressed bias. In turn, these positive expectations predicted improved current attitudes toward the person who previously expressed bias and higher workplace satisfaction.

GENERAL DISCUSSION

A full understanding of diversity in organizations requires more research into what happens after incidents of overt bias during everyday workplace interactions. The present research takes a first step by developing a theoretical framework for understanding stigmatized individuals' responses to experiences of prejudice as a function of prejudice confrontation and mindsets. Consistently across Studies 1-3⁴, when minorities or women confronted and held a growth mindset, they exhibited a more positive outlook on the perpetrator of bias. Due to this more positive outlook, experiences of everyday prejudice were less undermining to the belonging and workplace satisfaction of growth mindset confronters. These effects emerged in hypothetical workplace scenarios (Studies 1-2) and retrospective accounts of real-world bias

(Study 3), and when confrontation and mindsets were measured (Study 1a, Study 1b, Study 3) and manipulated (Study 2). These results support the idea that prejudice confrontation can serve a reparative role for stigmatized employees, but only if they hold a more growth mindset. This research advances our understanding of mindsets, identifying a key condition necessary for growth mindsets to yield benefits. It also advances theory in the study of diversity, highlighting the value of investigating what happens after overt bias in everyday organizational interactions.

Limitations and Future Directions. The present research is a first step in unpacking the complexities of addressing expressions of prejudice in the workplace, but critical next questions remain. Future research could investigate whether growth mindset confronters are less likely to experience backlash from others, whether bystanders who witness confrontation from a growth mindset perspective also experience benefits, and the role organizational and national cultures (Lee, Soto, Swim, & Bernstein, 2012) play in these dynamics. Additionally, research could explore other types of responses that might similarly interface with a growth mindset, such as workplace-led discussions of intergroup inequality (e.g., Starbucks' Race Together initiative). Further, research should also invest in understanding minorities' and women's responses to repeated incidents of overt bias, where an outlook that perpetrators will not change may be more adaptive. These further investigations may be critical to understanding how the willingness to address prejudice and mindsets contribute to maintaining successful diversity in the workplace.

The dimension of beliefs that have been investigated here, fixed vs. growth mindsets, is not on the surface group-relevant or directly tied to intergroup relations. One practical application from this research, then, may be to suggest that interventions to promote growth mindsets might circumvent the reluctance both majority and minority group members may sometimes feel toward training programs blatantly focused on addressing intergroup attitudes

and behaviors (Kalev, et al., 2006; Kidder, Lankau, Chrobot-Mason, Mollica, & Friedman, 2004), while at the same time possibly benefitting minority and women who face overt bias. If a growth mindset fosters more openness and trust among both minority and majority group members (Carr, Dweck, & Pauker, 2012; Emerson & Murphy, 2015; Halperin, et al. 2011; Levy & Dweck, 1999; Levy, Stroessner, & Dweck, 1998; Neel & Shapiro, 2012; for a review, see Rattan & Georgeac, 2017a, 2017b), we might expect such an intervention to improve both intergroup conflicts and other social- and work-related interpersonal conflicts (De Dreu & Van Vianen, 2001; Jehn & Mannix, 2001; Simons & Peterson, 2000).

It is critical to note that women and minorities must never be expected to take on these burdens in organizations; rather, organizations bear full responsibility for addressing stereotypes and prejudice in the workplace, particularly in cases where multiple incidents arise. However, the present findings begin to suggest ways that organizations may facilitate coping among those targeted by expressions of bias at work. Leaders who want to effectively encourage diversity in their organizations could support their minority and women employees by both fostering safe opportunities for confrontation (e.g., highlighting norms for the style and content of confrontations) and fostering a growth mindset environment in the organization in order to encourage the best possible outcomes for stigmatized individuals following the negative experience of an expression of prejudice at work. Diversifying organizations relies on the continued participation and engagement of minorities and women, which should not come with the price of experiencing overt bias at work. As long as it does, however, organizations and diversity scholars must do more to investigate how minorities and women can cope with these experiences to avoid derailment from their personal and professional goals.

REFERENCES

- Adams, G.S. (in press). Asymmetries between victims' and transgressors' perspectives following interpersonal transgressions. *Social and Personality Psychology Compass*.
- Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Asburn-Nardo, L., Morris, K.A., & Goodwin, S.A. (2008). The confronting prejudice responses (CPR) model: Applying CPR in organizations. *Academy of Management Learning & Education, 7*, 332-342.
- Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology, 6*, 1-62. New York: Academic Press.
- Bettencourt, B.A., Dill, K.E., Greathouse, S.A., Charlton, K., & Mulholland, A. (1997). Evaluations of ingroup and outgroup members: The role of category-based expectancy violation. *Journal of Experimental Social Psychology, 33*, 244-275.
- Brands, R.A. & Rattan, A. (2016). A cognitive social networks account of women's interpersonal responses to prejudice in the workplace. Unpublished manuscript, London Business School.
- Bezrukova, K., Jehn, K.A., & Spell, C.S. (2012). Reviewing diversity training: Where we have been and where we should go. *Academy of Management Learning & Education, 11*, 207-227.
- Blanchard, F.A., Crandall, C.S., Brigham, J.C., Vaughn, L.A. (1994). Condemning and condoning racism: A social context approach to interracial settings. *Journal of Applied Psychology, 79*, 993-997.
- Carr, P. B., Dweck, C. S., & Pauker, K. (2012). "Prejudiced" behavior without prejudice? Beliefs

- about the malleability of prejudice affect interracial interactions. *Journal of Personality and Social Psychology*, *103*, 452-71.
- Carr, P.B., Rattan, A., & Dweck, C.S. (2012). Implicit Theories Shape Intergroup Relations. In P. Devine and A. Plant (Eds.) *Advances in Experimental Social Psychology*, *45*, 127-165.
- Chaney, K.E., Young, D.M., & Sanchez, D.T. (2015). Confrontation's health outcomes and promotion of egalitarianism (C-HOPE) Framework. *Translational Issues in Psychological Science*, *1*, 363-371.
- Chiu, C., Hong, Y., & Dweck, C.S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology*, *73*, 19–30.
- Cloutier, J., Gabrieli, J.D.E., O'Young, D., & Ambady, N. (2011). An fMRI study of violations of social expectations: When people are not who we expect them to be. *NeuroImage*, *57*, 583-588.
- Cocchiara, F.K., Connerly, M.L., & Bell M.P. (2010). "A GEM" for increasing the effectiveness of diversity training. *Human Resource Management*, *49*, 1089-1106.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Czopp, A.M., & Monteith, M.J. (2003). Confronting prejudice (literally): Reactions to confrontations of racial and gender bias. *Personality and Social Psychology Bulletin*, *29*, 532–544.
- Czopp, A.M., Monteith, M.J., & Mark, A.Y. (2006). Standing up for a change: Reducing bias through interpersonal confrontation. *Journal of Personality and Social Psychology*, *90*, 784–803.
- De Dreu, C.K.W. & Van Vianen, A.E.M. (2001). Managing relationship conflict and the

- effectiveness of organizational teams. *Journal of Organizational Behavior*, 22, 309-328.
- Deitch, E.A., Barsky, A., Butz, R.M., Chan, S., Brief, A.P., & Bradley, J.C. (2003). Subtle yet significant: the existence and impact of everyday racial discrimination in the workplace. *Human Relations*, 56, 1299-1324.
- Dixon, K.A., Storen, D. & Van Horn, C.E. (2002). *A workplace divided: How Americans view discrimination and race on the job*. Rutgers, The State University of New Jersey, John J. Heldrich Center for Workforce Development.
- Dweck, C.S. (1986). Motivational processes affecting learning. *American Psychologist*, 41, 1040-1048.
- Dweck, C.S. (1999). *Self-theories: Their role in motivation, personality and development*. Philadelphia: Taylor & Francis/Psychology Press.
- Ely, R.J., & Thomas, D.A. (2001). Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, 46, 229-273.
- Ely, R.J., Meyerson, D.E., & Davidson, M.N. (2006). Rethinking political correctness. *Harvard Business Review*, 84, 78-87.
- Ely, R.J., Padavic, I., & Thomas, D.A. (2012). Racial diversity, racial asymmetries, and team learning environment: Effects on performance. *Organization Studies*, 33, 341-362.
- Emerson, K.T.U. & Murphy, M.C. (2015). A company I can trust? Organizational lay theories moderate stereotype threat for women. *Personality and Social Psychology Bulletin*, 41, 295-307.
- Fazio, R.H., Zanna, M.P., & Cooper, J. (1977). Dissonance and self-perception: An integrative

- view of each theory's proper domain of application. *Journal of Experimental Social Psychology*, 13, 464-479.
- Foster, M.D. & Dion, K.L. (2004). The role of hardiness in moderating the relationship between global/specific attributions and actions against discrimination. *Sex Roles*, 51, 161-169.
- Gelfand, M.J., Nishii, L., Raver, L., & Schneider, B. (2005). Discrimination in organizations: An organizational-level systems perspective. In R. Dipboye and A. Collella (Eds.) *Discrimination at work: The psychological and organizational bases*. Lawrence Erlbaum Associates, Frontiers Series.
- Halperin, E., Crisp, R., Husnu, S., Dweck, C., Gross, J. (2012). Promoting intergroup contact by changing Beliefs: Group malleability Intergroup anxiety and contact motivation. *Emotion*. 12, 1192-1195.
- Hayes, A.F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. New York: The Guilford Press.
- Heslin, P.A., Latham, G.P., VandeWalle, D. (2005). The effect of implicit person theory on performance appraisals. *Journal of Applied Psychology*, 90, 842-856.
- Heslin, P.A., Vandewalle, D. & Latham, G. P. (2006). Keen to Help? Managers' Implicit Person Theories and their Subsequent Employee Coaching. *Personnel Psychology*, 59, 871-902.
- Hyers, L.L. (2007). Resisting prejudice every day: Exploring women's assertive responses to anti-black racism, anti-Semitism, heterosexism, and sexism. *Sex Roles*, 56, 1-12.
- Jackson, L.A., Sullivan, L.A., & Hodge, C.N. (1993). Stereotype effects of attributions,

- predictions, and evaluations: No two social judgments are quite alike. *Journal of Personality and Social Psychology*, 65, 69-84.
- Jehn, K. & Mannix, E.A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of Management Journal*, 44, 238-251.
- Kaiser, C.R., & Miller, C.T. (2001). Stop complaining! The social costs of making attributions to discrimination. *Personality and Social Psychology Bulletin*, 27, 254–263.
- Kaiser, C.R., & Miller, C.T. (2004). A stress and coping perspective on confronting sexism. *Psychology of Women Quarterly*, 28, 168–178.
- Kalev, A., Dobbin, F., & Kelly, E. (2006). Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies. *American Sociological Review*, 71 589-617.
- Kidder, D.L., Lankau, M.J., Chrobot-Mason, Mollica, D., & Friedman, R.A. (2004). Backlash toward diversity initiatives: Examining the impact of diversity program justification, personal and group outcomes. *International Journal of Conflict Management*, 15, 77-104.
- Lee, E.A., Soto, J.A., Swim, J.K., Bernstein, M.J. (2012). Bitter reproach or sweet revenge: Cultural differences in response to racism. *Personality and Social Psychology Bulletin*, 38, 920-932.
- Levontin, L., Halperin, E & Dweck, C. (2013). Implicit theories block negative attributions about a longstanding adversary: The case of Israelis and Arabs. *Journal of Experimental Social Psychology*, 49, 670-675.
- Levy, S. R., & Dweck, C. S. 1999. The impact of children’s static versus dynamic conceptions of people on stereotype formation. *Child Development*, 70: 1163–1180.

- Levy, S. R., Stroessner, S. J., & Dweck, C. S. (1998). Stereotype formation and endorsement: The role of implicit theories. *Journal of Personality and Social Psychology*, *74*, 1421–1436.
- Mallett, R. K. & Wagner, D. E. (2011). The unexpectedly positive consequences of confrontation. *Journal of Experimental Social Psychology*, *47*, 215-220.
- McCrae, R.R. & Costa, P.T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, *52*, 81-90.
- Mendes, W.B., Blascovich, J. Hunter, B., & Lickel, S. (2002). Challenge and threat during social interactions with White and Black men. *Personality and Social Psychology Bulletin*, *28*, 939-952.
- Mischel, W. & Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, *102*, 246-268.
- Molden, D.C., Plaks, J.E., & Dweck, C.S. (2006). “Meaningful” social inferences: Effects of implicit theories on inferential processes. *Journal of Experimental Social Psychology*, *42*, 738-752.
- Murphy M. C., Steele, C. M. & Gross, J. J. (2007). Signaling threat: How situational cues affect women in math, science, and engineering settings. *Psychological Science*, *18*, 879-885.
- Neel, R., & Shapiro, J.R. (2012). Is racial bias malleable? Whites’ lay theories of racial bias predict divergent strategies for interracial interactions. *Journal of Personality and Social Psychology*, *103*, 101-120.
- Plaut, V. C., Thomas, K. M., & Goren, M. J. (2009). Is multiculturalism or color blindness better

- for minorities? *Psychological Science*, 20, 444-446.
- Plaks J.E. & Stecher, K. (2007). Unexpected improvement, decline, and stasis: A prediction confidence perspective on achievement success and failure. *Journal of Personality and Social Psychology*, 93, 667-684.
- Plaks, J.E., Stroessner, S. Dweck, C.S., & Sherman, J.W. (2001). Person theories and attention allocation: Preferences for stereotypic versus counterstereotypic information. *Journal of Personality and Social Psychology*, 80, 876-893.
- Rattan, A. & Dweck, C.S. (2010). Who Confronts Prejudice? The Role of Implicit Theories in the Motivation to Confront Prejudice. *Psychological Science*, 2, 952-959.
- Rattan, A. & Georgeac, O. (2017). Understanding intergroup relations through the lens of implicit theories (mindsets) of malleability. *Social Personality Psychology Compass*. forthcoming.
- Rattan, A. & Georgeac, O. (2017) Mindsets about malleability and intergroup relations. In C. Zedelius, B. Mueller, J. Schooler (Eds.). *The Science of Lay Theories – How Beliefs Shape Our Cognition, Behavior, and Health*. forthcoming.
- Roberson, L. & Kulik, C.T. (2007). Stereotype threat at work. *Academy of Management Perspectives*, 21, 24-40.
- Sawyer, O.O., Strauss, J., & Yan, J. (2005). Individual value structure and diversity attitudes. *Journal of Managerial Psychology*, 20, 498-521.
- Shelton, J.N., & Stewart, R.E. (2004). Confronting perpetrators of prejudice: The inhibitory effects of social costs. *Psychology of Women Quarterly*, 28, 215–223.
- Shelton, J. N. (2000). A reconceptualization of how we study issues of racial prejudice. *Personality and Social Psychology Review*, 4, 374 –390.

- Shelton, J.N., Richeson, J.A., Salvatore, J., & Hill, D.M. (2006). Silence is not golden: The intrapersonal consequences of not confronting prejudice. In S. Levin & C. Van Laar Eds., *Stigma and group inequality: Social psychological perspectives* pp. 65–82. Mahwah, NJ: Erlbaum.
- Shore, L.M., Chung-Herrera, B.G., Dean, M.A., Ehrhart, K.H., Jung, D.I., Randel, A.E., Singh, G. (2009). Diversity in organizations: Where are we now and where are we going? *Human Resource Management Review*, 19, 117-133.
- Simons, T. L., & Peterson, R. S. (2000). Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *Journal of Applied Psychology*, 85, 102-111.
- Stangor, C., Swim, J.K., Van Allen, K., & Sechrist, G.B. (2002). Reporting discrimination in public and private contexts. *Journal of Personality and Social Psychology*, 82, 69–74.
- Sue, D.W. (2010). *Microaggressions in everyday life: Race, Gender, and Sexual Orientation*. New Jersey: John Wiley & Sons, Inc.
- Swim, J.K., & Hyers, L.L. (1999). Excuse me—what did you say?! Women’s public and private responses to sexist remarks. *Journal of Experimental Social Psychology*, 35, 68–88.
- Swim, J.K., Hyers, L.L., Cohen, L.L., & Ferguson, M.J. (2001). Everyday sexism: Evidence for its incidence, nature, and psychological impact from three daily diary studies. *Journal of Social Issues*, 57, 31–53.
- Swim, J.K., Hyers, L.L., Cohen, L.L., Fitzgerald, D.C., & Bylsma, W.H. (2003).

- African American college students' experiences with everyday racism: Characteristics of and responses to these incidents. *Journal of Black Psychology*, 29, 38–67.
- Thomas, D.A. & Ely, R.J. (1996). Making differences matter: A new paradigm for managing diversity. *Harvard Business Review*, September-October, 79-90.
- Tossi, M. (2012). Labor force projections to 2020: A more slowly growing workforce. *Monthly Labor Review*, January, 43-64.
- Trawalter, S., Richeson, J. A., & Shelton, J. N. (2009). Predicting behavior during interracial interactions: A stress and coping approach. *Personality and Social Psychology Review*, 13, 243-268.
- Walton, G.M., Murphy, M.C., & Ryan, A.M. (2015). Stereotype threat in organizations: Implications for equity and performance. *Annual Review of Organizational Psychology and Organizational Behavior*, 2, 523-550.
- Woodzicka, J.A., & LaFrance, M. (2001). Real versus imagined gender harassment. *Journal of Social Issues*, 57, 15–30.
- Woodzicka, J.A., & LaFrance, M. (2005). The effects of subtle sexual harassment on women's performance in a job interview. *Sex Roles*, 53, 67-77.
- Yeager, D.S., Miu, A., Powers, J., & Dweck, C.S. (2013). Implicit theories of personality and attributions of hostile intent: A meta-analysis, an experiment, and a longitudinal intervention. *Child Development*, 84, 1651-1667.

Footnotes

¹ Note that these are not judgments of “personality” as it would be understood from the perspective of psychological science (McCrae & Costa, 1987; Mischel & Shoda, 1995). Rather, these items and the manipulations reported in Study 2 refer to personality only as a way of verbalizing through lay vocabulary what it means to say that people are more fixed vs. more malleable (Chiu et al., 1997).

² Past research has shown that those with more of a growth mindset are more likely to confront an act of prejudice (Rattan & Dweck, 2010). However, in the current research, we did not want differences in participants’ expectations following an expression of bias to stem solely from different base rates of confrontation behavior. Therefore, in order to elicit higher and more equal rates of reported confronting from participants across the mindset continuum, we adapted a previously used questionnaire (Rattan & Dweck, 2010). In the original questionnaire, participants were able to exhibit their disagreement with the biased statement either publicly (i.e., by confronting) or privately (i.e., without speaking up). Given that previous research has highlighted minorities’ and women’s desire to express disagreement with everyday expressions of prejudice (Shelton, et al., 2006; Swim & Hyers, 1999), we reasoned that constraining the response options in the manner described in the main text might encourage participants, regardless of mindset, to view confronting as their preferred strategy.

³ We conducted an a priori power analysis to estimate the desired sample size. The results of Studies 1A and 1B suggested that using a medium effect size estimate would be reasonable. For this design, a sample size of 68 affords 80% power to detect a medium sized effect ($f^2 = .15$; Cohen, 1988), setting alpha error probability to .05. Our sample size of $N = 227$ thus offered high power to detect a medium-sized effect.

⁴ To offer further support of our theoretical framework and the conclusions proposed in this manuscript, we also conducted a meta-analysis of the observed effect sizes for the interaction of Confrontation and Mindsets across the four studies. The meta-analysis, weighted by sample size (Hunter & Schmidt, 1990; Hunter, Schmidt, & Jackson, 1982), estimated the effect size for the Confrontation by Mindset interaction on the key dependent variable across the four studies, the measure of positive versus negative subsequent outlook. The results supported the theoretical framework we outlined at the start of this manuscript: the Confrontation by Mindset interaction exerts a moderately sized effect on the outlook that targets of prejudice hold after experiencing explicit prejudice, Cohen’s $d = .54$, $se = .09$, 95% CI of d [.42, .66].

Table 1. Study 1A: Means, Standard Deviations, and Correlations among Study Variables. (N = 81)

Variables	Mean	<i>SD</i>	1	2	3
1. Surprise	2.69	1.91	-		
2. Mindset (centered)	-0.020	0.93	0.23*	-	
3. Anticipated Confronting (centered)	-0.62	1.60	0.060	-0.040	-

* $p < 0.05$.

Table 2. Study 1A: Surprise at co-worker's lack of change as a function of mindset, anticipated confronting, and their interaction.

(mindset and confronting main effects entered in Model 1, hypothesized mindset X confronting interaction added in Model 2, N = 81).

Predictors	Model 1		Model 2	
	B (<i>SE</i>)	<i>p</i>	B (<i>SE</i>)	<i>p</i>
(Constant)	2.70 (0.21)	0.00	2.70 (0.21)	0.00
Mindset (centered)	0.47 (0.23)	0.042	0.42 (0.22)	0.064
Anticipated Confronting (centered)	0.077 (0.13)	0.56	0.11 (0.13)	0.41
Mindset X Confronting Interaction			0.27 (0.13)	0.046
R^2	0.055		0.10	
F for change in R^2	2.26	0.11	4.12	0.046

Table 3. Study 1B: Means, Standard Deviations, and Correlations among Study Variables. (N = 58)

	Mean	<i>SD</i>	1	2	3
1. Belief in Change	4.36	1.31	-		
2. Mindset (centered)	-0.070	0.96	0.59*	-	
3. Anticipated Confronting (centered)	0.050	1.49	0.17	0.077	-

* $p < 0.05$.

Table 4. Study 1B: Belief in a co-worker's change as a function of mindset, anticipated confronting, and their interaction (mindset and confronting main effects entered in Model 1, hypothesized mindset X confronting interaction added in Model 2, N = 58).

Predictors	Model 1		Model 2	
	B (SE)	<i>p</i>	B (SE)	<i>p</i>
(Constant)	4.43 (0.14)	0.00	4.41 (0.14)	0.00
Mindset (centered)	0.81 (0.15)	0.00	0.73 (0.15)	0.00
Anticipated Confronting (centered)	0.11 (0.10)	0.28	0.11 (0.090)	0.25
Mindset X Confronting Interaction			0.16 (0.090)	0.080
R^2		0.37		0.40
F for change in R^2	15.91	0.00	3.09	0.080

Table 5. Study 3: Means, Standard Deviations, and Correlations among Study Variables. (N = 66)

	Mean	SD	1	2	3	4	5	6	7	8	9	10
<i>Dependent Variables (Mindset X Confrontation interaction not predicted)</i>												
1. Offensiveness	7.42	2.00	-									
2. Negative Self-directed Emotions	2.30	1.24	0.089	-								
3. Negative Other-directed Emotions	5.16	2.11	0.51*	0.24*	-							
4. Perceived Risk	3.85	2.50	-0.24+	0.19	0.0020	-						
5. Public vs. Private Perceptions	5.32	2.01	-0.059	0.067	0.21+	0.23+	-					
<i>Dependent Variables (Mindset X Confrontation interaction predicted)</i>												
6. Perceptions of Change	3.02	2.42	0.081	0.27*	0.051	0.044	0.22+	-				
7. Current Attitudes	5.08	1.78	-0.052	0.17	-0.010	0.089	0.018	0.50*	-			
8. Workplace Satisfaction	5.33	2.10	0.0020	0.14	-0.18	0.092	0.014	0.28*	0.50*	-		
<i>Independent Variables</i>												
9. Mindset (centered)	0.00	1.12	-0.074	-0.35*	-0.31*	-0.23*	0.018	0.084	0.084	-0.097	-	
10. Anticipated Confronting	0.030	1.01	0.31*	-0.032	0.027	-0.19+	0.017	0.21*	0.20+	0.18+	0.047	-

Note. For Anticipated Confronting, -1 = did not confront and 1 = confronted.

* $p < 0.05$. + $p < 0.10$

Table 6. Study 3: Reported offensiveness, self- and other- directed emotion, perceived risk, and public vs. private nature of situation as a function of mindset, anticipated confronting, and their interaction (all predictors were entered in Model 1 given that no mindset X confronting interaction was hypothesized, N = 66).

Predictors	<u>Dependent Variables</u>									
	Offensiveness		Negative Self-directed Emotion		Negative Other-directed Emotion		Perceived Risk		Public vs. Private Perceptions	
	B (SE)	<i>p</i>	B (SE)	<i>p</i>	B (SE)	<i>p</i>	B (SE)	<i>p</i>	B (SE)	<i>p</i>
(Constant)	7.40 (0.24)	0.00	2.30 (0.15)	0.00	5.16 (0.25)	0.00	3.68 (0.30)	0.00	5.30 (0.26)	0.00
Mindset (centered)	-0.16 (0.21)	0.46	-0.39 (0.13)	0.0050	-0.60 (0.23)	0.011	-0.49 (0.27)	0.076	0.024 (0.23)	0.92
Anticipated Confronting	0.63 (0.24)	0.010	-0.019 (0.15)	0.90	0.088 (0.25)	0.73	-0.46 (0.30)	0.14	0.035 (0.26)	0.89
Mindset X Confronting Interaction	0.11 (0.21)	0.62	0.064 (0.13)	0.63	0.023 (0.23)	0.92	0.016 (0.27)	0.95	0.34 (0.23)	0.16

Note. For Anticipated Confronting, -1 = did not confront and 1 = confronted.

Table 7. Study 3: Perceptions of a co-worker's change as a function of mindset, anticipated confronting, and their interaction (mindset and confronting main effects entered in Model 1, hypothesized mindset X confronting interaction added in Model 2, N = 66).

Predictors	Model 1		Model 2	
	B (SE)	<i>p</i>	B (SE)	<i>p</i>
(Constant)	3.00 (0.30)	0.00	2.97 (0.29)	0.00
Mindset (centered)	0.16 (0.27)	0.54	0.15 (0.26)	0.57
Confronting	0.49 (0.30)	0.10	0.49 (0.29)	0.091
Mindset X Confronting Interaction			.556 (.259)	.036
R^2		0.049		0.12
F for change in R^2	1.62	0.21	4.61	0.036

Note. For Confronting, -1 = did not confront and 1 = confronted.

Table 8. Study 3: PROCESS Results (Model 8) Conditional indirect effects of the mindset by confronting interaction on current liking of the person who previously expressed bias and employee’s workplace satisfaction via perceptions of belief change.

	Current Liking		Workplace Satisfaction	
	Coefficient	95% CI	Coefficient	95% CI
Perceptions of belief change	.37 (.09)	[.19, .54]	.24 (.11)	[.02, .47]
Mindset	.06 (.18)	[-.29, .41]	-.24 (.23)	[-.69, .22]
Confronting	.61 (.67)	[-.74, 1.95]	.64 (.87)	[-1.10, 2.38]
Mindset X Confronting Interaction	-.12 (.18)	[-.49, .24]	-.10 (.23)	[-.57, .37]
Constant	3.75 (.69)	[2.36, 5.13]	5.45 (.90)	[3.65, 7.24]
	$R^2 = .27$ F(4, 61) = 5.53, p < .001		$R^2 = .12$ F(4, 61) = 1.98, p = .11	
Perceptions of Belief Change				
Conditional indirect effect of confrontation on current liking through perceptions of belief change at each level of the moderator (mindset)				
	Effect	SE	Boot LL CI	Boot UL CI
-1 SD (2.49)	-.05	.17	-.41	.28
Mean (3.61)	.18	.12	-.002	.48
+1 SD (4.73)	.41	.20	.10	.90
Conditional indirect effect of confrontation on workplace satisfaction through perceptions of belief change at each level of the moderator (mindset)				
	Effect	SE	Boot LL CI	Boot UL CI
-1 SD (2.49)	-.03	.12	-.31	.20
Mean (3.61)	.12	.11	-.008	.43
+1 SD (4.73)	.27	.18	.02	.74

FIGURE CAPTIONS

Figure 1. Results of Study 1A: Surprise as a function of mindset estimated at 1 SD below and above the mean and anticipated confronting estimated at 1 SD below and above the mean.

Figure 2. Results of Study 1B: Belief in the other intern's expressed change as a function of mindset estimated at 1 SD below and above the mean and anticipated confronting estimated at 1 SD below and above the mean.

Figure 3. Results of Study 2: Standardized composite scores of positive subsequent expectations as a function of the manipulation of mindsets, fixed versus growth, and the manipulation of response, confronting versus not.

Figure 4. Results of Study 3: Perceptions of the degree to which a co-worker who previously expressed bias had changed as a function of mindset estimated at 1 SD below and above the mean and confronting as coded from participants' free response descriptions.

Figure 1.

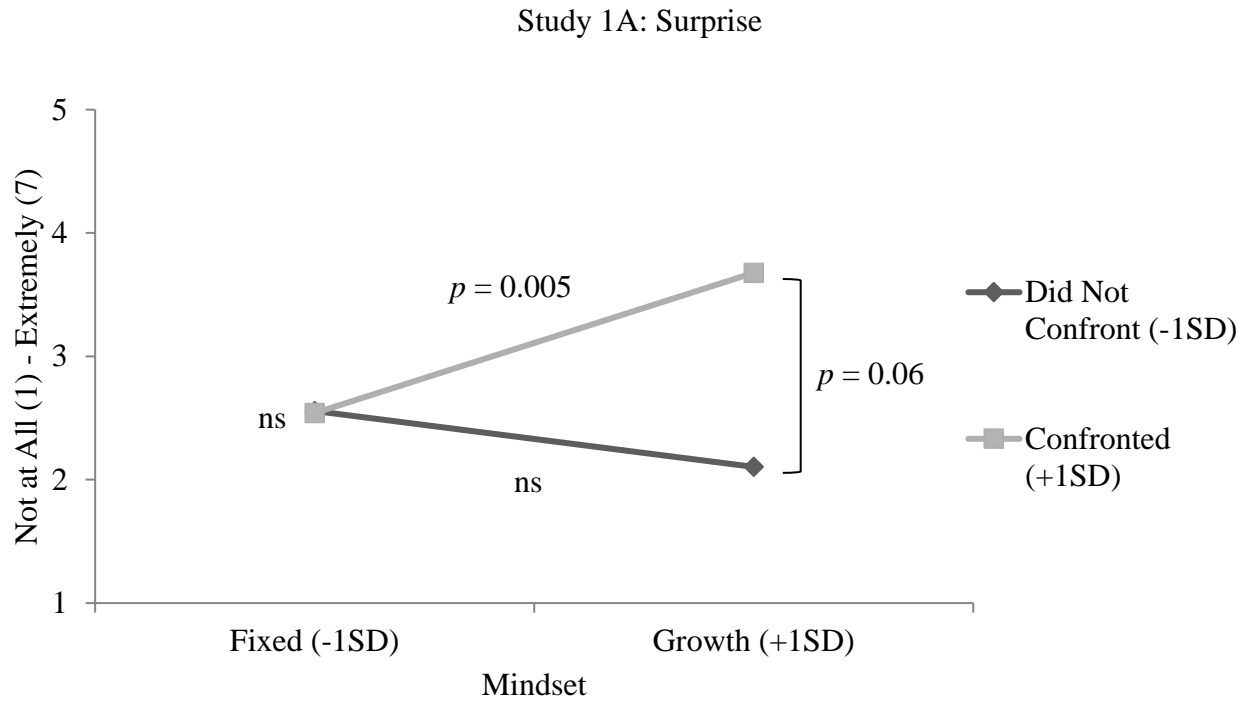


Figure 2.

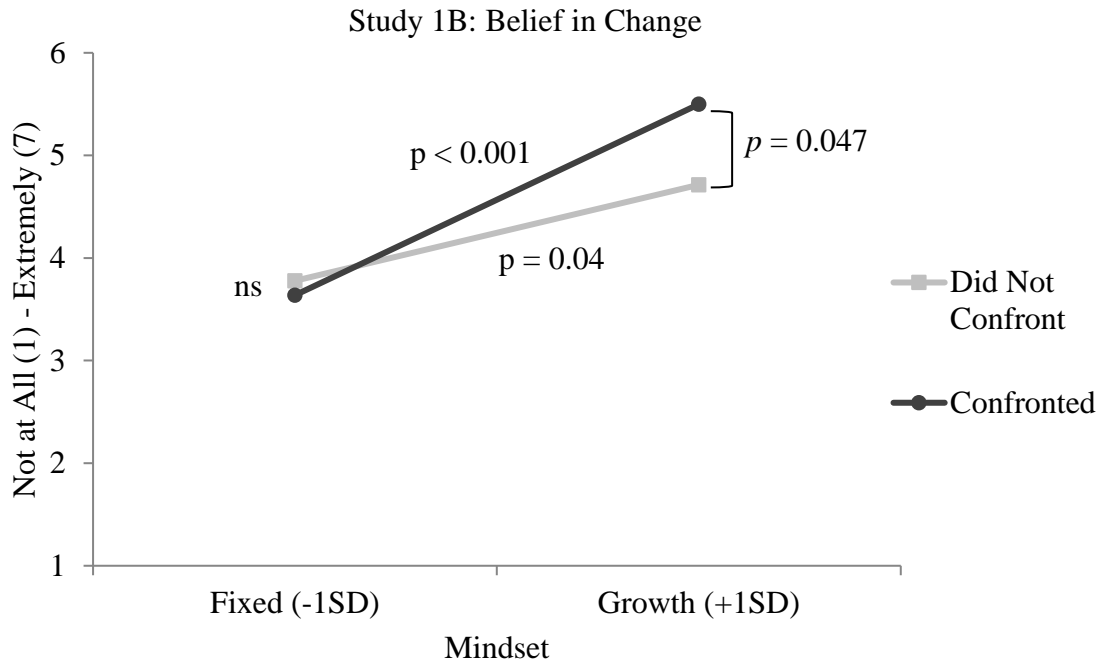


Figure 3.

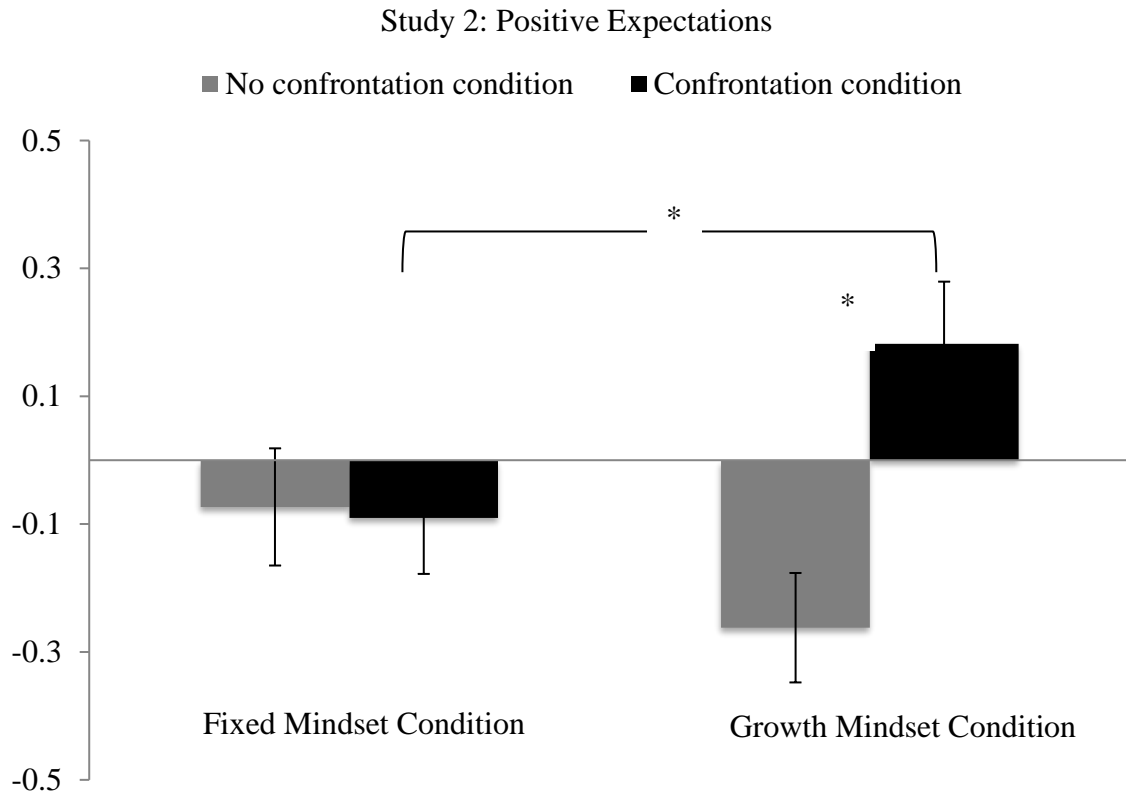


Figure 4.

