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Suspicion of motives predicts minorities' responses to positive feedback in interracial interactions☆☆☆☆☆☆



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HIGHLIGHTS

- Anti-bias norms increase attributional ambiguity of feedback to minorities.
- Some minorities suspect Whites' positivity toward them is insincere.
- Suspicion of motives predicts uncertainty, threat and decreased self-esteem.
- Attributionally ambiguous positive feedback is threatening for minorities.
- Suspicion that positive evaluations are insincere can have negative consequences.

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ABSTRACT

Strong social and legal norms in the United States discourage the overt expression of bias against ethnic and racial minorities, increasing the attributional ambiguity of Whites' positive behavior to ethnic minorities. Minorities who suspect that Whites' positive overtures toward minorities are motivated more by their fear of appearing racist than by egalitarian attitudes may regard positive feedback they receive from Whites as disingenuous. This may lead them to react to such feedback with feelings of uncertainty and threat. Three studies examined how suspicion of motives relates to ethnic minorities' responses to receiving positive feedback from a White peer or same-ethnicity peer (Experiment 1), to receiving feedback from a White peer that was positive or negative (Experiment 2), and to receiving positive feedback from a White peer who did or did not know their ethnicity (Experiment 3). As predicted, the more suspicious Latinas were of Whites' motives for behaving positively toward minorities in general, the more they regarded positive feedback from a White peer who knew their ethnicity as disingenuous and the more they reacted with cardiovascular reactivity characteristic of threat/avoidance, increased feelings of stress, heightened uncertainty, and decreased self-esteem. We discuss the implications for intergroup interactions of perceptions of Whites' motives for nonprejudiced behavior.

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1. Introduction

Over the last fifty years, strong social and legal norms have emerged in the United States discouraging the overt expression of bias against ethnic and racial minorities (Crandall, Eshleman, & O'Brien, 2002). Many researchers have documented the impact of these anti-bias norms on Whites' behavior in interracial interactions (e.g., Croft & Schmader, 2012; Norton, Sommers, Apfelbaum, Pura, & Ariely, 2006; Plant & Devine, 1998; Shelton, 2003; see Vorauer, 2006). In contrast, almost no research has examined how perception of these norms relates to ethnic minorities' reactions to evaluative feedback in interracial interactions. We suggest that the perception of strong social norms discouraging expression of bias against minorities, although having many benefits, has also increased the attributional ambiguity of Whites' positive behavior to ethnic minorities. Minorities who suspect that Whites' positive overtures toward minorities are motivated more by their fear of appearing racist than by egalitarian attitudes may regard positive feedback they receive from Whites as disingenuous. This, in turn, may lead them to react to such feedback with feelings of uncertainty and threat. We tested this hypothesis in three experiments using both cardiovascular reactivity and decreases in self-esteem to index threat.

2. Attributional ambiguity in interethnic interactions

Discerning others' true motives can be difficult, especially in interracial interactions (Crocker & Major, 1989). Not only do people sometimes lie or hide their true feelings, but they also often omit key information, particularly when it is negative (Bergsieker, Leslie, Constantine, & Fiske, 2012). Ethnic minorities typically are aware that they are vulnerable to being a target of negative stereotypes, prejudice, or discrimination in interethnic encounters (Crocker, Major, & Steele, 1998). Consequently, when ethnic minorities receive negative feedback from Whites who know their race, they often experience *attributional ambiguity* with regard to its cause, i.e., uncertainty regarding whether their treatment is motivated by racial bias or deserved (Crocker & Major, 1989; Major & Crocker, 1993). A well-established literature has shown that ethnic minorities and other members of stigmatized groups often experience negative treatment or feedback in intergroup encounters as attributionally ambiguous, with important implications for cognition, affect, and health (Major, Quinton & McCoy, 2002).

The present work extends the literature on attributional ambiguity in several important ways. First, it provides an important extension by investigating within-group differences in suspicion of Whites' motives in interracial interactions. Second, it extends this literature by focusing on attributional ambiguity surrounding positive and not just negative feedback to stigmatized groups. Although far less studied, positive treatment in interethnic interactions may be even more attributionally ambiguous for ethnic minorities than negative treatment. There are a number of reasons why positive feedback might be attributionally ambiguous (see Major & Crocker, 1993). For example, members of stigmatized groups may be uncertain whether positive feedback reflects genuine caring or indicates pity. They also may be uncertain whether positive feedback reflects "shifting standards" and lower expectations on the part of the evaluator (e.g., Biernat & Manis, 1994). Yet a third reason that positive feedback can be attributionally ambiguous, and the one that we focus on here, is that members of stigmatized groups may be uncertain of the extent to which positive feedback is motivated by the evaluator's self-presentational concerns, specifically, his or her desire to *not appear prejudiced*.

Strong social and legal norms in the United States discourage the overt expression of bias against ethnic and racial minorities (Crandall et al., 2002). These norms, although beneficial in helping to reduce overt racial discrimination, have made Whites' true attitudes and motives more difficult to decipher. Whites are aware that they are stereotyped as racist, and many strongly desire to be seen as likable

by ethnic minorities (Bergsieker, Shelton, & Richeson, 2010). Many studies have shown that in order to avoid the stigma of being labeled racists, Whites often conceal racial biases behind smiles and amplified positivity toward minorities. For example, Whites often behave more positively toward racial minorities in public than they do in private and express more positive racial attitudes on controllable, explicit measures than on difficult to control, implicit measures (e.g., Devine, 1989; Dovidio, Gaertner, Kawakami, & Hodson, 2002). In trying to act or appear nonprejudiced, Whites sometimes "over-correct" in their treatment of ethnic minorities (Vorauer & Turpie, 2004), acting overly friendly toward Blacks (Plant & Devine, 1998) and evaluating the same work more favorably when it is believed to be written by Blacks than Whites, especially when responses are public (Carver, Glass, & Katz, 1978; Harber, 1998, 2004). Furthermore, external concerns with avoiding the appearance of prejudice can lead Whites to amplify positive and conceal negative responses toward Blacks (Croft & Schmader, 2012; Mendes & Koslov, 2013). Thus, strong anti-prejudice norms may function as a double-edged sword, potentially leading Whites (at least those externally motivated to appear unprejudiced) to give minorities overly positive feedback and withhold useful negative feedback (Crosby & Monin, 2007).

Surprisingly, despite a large body of research examining minorities' attributions for and responses to negative treatment in interracial interactions (see Major, Quinton, et al., 2002 for a review), only a handful of studies has examined how minorities interpret and react to attributionally ambiguous positive feedback in interracial interactions. In the one of the first studies to examine this question, Crocker, Voelkl, Testa, and Major (1991) exposed Black students to positive or negative feedback from a White peer. Half were led to believe their partner did not know their race, thus removing race as a potential cause of their feedback. The other half were led to believe their partner knew their race, making the feedback attributionally ambiguous. Black students' self-esteem increased after receiving positive interpersonal feedback from a White peer who they believed did *not* know their race, but *decreased* when they believed the White peer *did* know their race. Hoyt, Aguilar, Kaiser, Blascovich, and Lee (2007) conceptually replicated this pattern, finding a decrease in self-esteem among Latina participants who were led to believe that White peers who evaluated them positively thought they were Latina (making the feedback attributionally ambiguous) compared to Latinas led to believe the evaluator thought they were White. Mendes, Major, McCoy, and Blascovich (2008) extended this paradigm using physiological measures rather than decreases in self-esteem to index threat. Black students received positive or negative interpersonal feedback from a same-race or other-race peer who knew their ethnicity. Black participants interacting with a Black partner who had given them positive feedback showed a pattern of cardiovascular reactivity characteristic of *challenge or approach motivation*, generally considered an adaptive cardiovascular response. In contrast, Black participants interacting with a White partner who had given them positive feedback evinced a pattern of cardiovascular reactivity characteristic of *threat or avoidant motivation*, generally considered a maladaptive cardiovascular response.

Collectively, these three studies demonstrate a provocative and counterintuitive effect – that in attributionally ambiguous situations, positive, accepting feedback from White peers can feel threatening to ethnic minorities, as indexed by lowered self-esteem or a threat/avoidant pattern of cardiovascular reactivity. None of these studies, however, directly addressed *why* this pattern occurred. One potential explanation, and the one we focus on here, is that anti-bias norms have made positive feedback from Whites to minorities attributionally ambiguous by creating a salient external motive for a White individual to give positive feedback to an ethnic minority target (e.g., she is afraid of looking prejudiced; Crocker & Major, 1989). In particular, we suggest that the perception that strong anti-bias norms constrain Whites' behavior makes minorities suspicious of Whites' true attitudes and motives for giving them positive feedback. Suspicion is "the belief that

the actor's behavior may reflect a motive that the actor wants hidden from the target of his or her behavior" (Fein & Hilton, 1994, pp. 168–169). When perceivers suspect that another person has ulterior motives for offering positive feedback or praise, it

leads to uncertainty about the meaning of the behavior (Hilton, Fein, & Miller, 1993). Suspicion of Whites' motives for providing positive feedback may explain why minorities' perceptions of Whites' friendliness tend to rely more heavily on nonverbal cues and discount more controllable, verbal cues (Dovidio, Kawakami & Gaertner, 2002). Suspicion of motives may also explain why minorities sometimes experience positive feedback from Whites as threatening.

We hypothesize that ambiguity surrounding the motives underlying positive feedback increases doubts about its authenticity. People who are suspicious of an evaluator's motives may feel uncertain whether the evaluator is sincere and whether the feedback is genuine. If the feedback is social in nature, suspicion of the evaluator's motives may lead to uncertainty about whether one is accepted, threatening a need to belong (Baumeister & Leary, 1995). If the feedback is based on performance, suspicion of motives may lead to uncertainty about whether one is competent, threatening one's self-image (Aronson & Inzlicht, 2004). Subjective uncertainty about one's attitudes, beliefs, feelings, and perceptions, as well as about one's relationship to other people, is an aversive state associated with feelings of unease, anxiety and stress as well as physiological arousal (e.g., Baumeister, 1985; Fiske & Taylor, 1991; Hogg, 2007; Sorrentino & Roney, 1986; van den Bos, 2009). When it is linked with the self, uncertainty can lead to negative self-evaluations (Campbell, 1990; van den Bos, 2009).

Uncertainty can also increase the extent to which ostensibly positive interracial interactions are experienced as threatening (Mendes, Blascovich, Hunter, Lickel, & Jost, 2007). According to the biopsychosocial model of challenge and threat (Blascovich & Mendes, 2000), subjective uncertainty increases the extent to which motivated performance situations – such as evaluative interracial interactions – are appraised as demanding. Within this framework, when a person unconsciously or consciously appraises the demands of a situation as exceeding his or her coping resources, it results in a “threat” or avoidant motivational state. Conversely, when people appraise their resources as sufficient to meet demands, a “challenge” or approach motivational state results. Thus, by increasing appraised demands, suspicion of motives and its accompanying uncertainty may lead positive feedback from Whites to be experienced as threatening.

3. Measuring threat

Threat is notoriously difficult to assess directly from self-reports because people often are either unable to report when they feel threatened or are unwilling to do so. Decades of research have shown that patterns of cardiovascular reactivity provide one reliable and validated way to index threat. In particular, psychological states of challenge and threat are associated with different patterns of cardiovascular reactivity displayed during motivated performance situations (Blascovich & Mendes, 2000; Blascovich & Tomaka, 1996). Because they are not under conscious control, cardiovascular measures circumvent potential distortions or omissions that might be present in self-reports of threat due to self-presentational concerns or lack of conscious awareness of threat (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001). Cardiovascular reactivity measures are thus particularly useful in contexts where concerns with self-presentation may prevent individuals from consciously disclosing negative feelings, such as in intergroup interactions (e.g., Johns, Inzlicht, & Schmader, 2008), or in situations where norms of reciprocity are strong, both of which we expected to be enhanced among individuals who receive positive feedback from members of outgroups.

A second classic index of threat is a decrease in self-esteem. Numerous studies have shown that threats to belonging (e.g., Leary, Tambor, Terdal, & Downs, 1995), to self-image (e.g., Fein & Spencer, 1997), and

to worldviews (Major, Kaiser, O'Brien, & McCoy, 2007) can lead to decreased self-esteem. Crocker et al. (1991) also showed a decrease in self-esteem among Blacks who received positive feedback from White peers who knew their race. Drawing on these literatures, the current research used both decreased self-esteem and cardiovascular reactivity as indices of threat.

4. Within group differences in suspicion

It might be assumed from the studies reviewed above that all or most ethnic minorities will react with threat/avoidance to receiving positive feedback from Whites under attributionally ambiguous circumstances. Such a conclusion, however, ignores potentially important variation that may occur within ethnic groups. The current research focused on *within-group variability* in the extent to which Latinas are suspicious of and threatened by positive feedback from Whites. Although most intergroup research has paid relatively little attention to within-group differences among minorities, there are important exceptions indicating the critical role such variability can play (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002; Pinel, 1999; Richeson & Shelton, 2007; Vorauer, 2006). Latinas vary widely in their perceptions of interethnic relations (e.g., Major, Gramzow, et al., 2002; Townsend, Major, Sawyer, & Mendes, 2010), and in the extent to which they are stigma conscious, i.e., expect to be treated by others on the basis of stereotypes (Pinel, 1999) and are sensitive to race-based rejection, i.e., anxiously expect rejection in interpersonal relationships on the basis of their ethnicity (Mendoza-Denton et al., 2002).

Recent studies have also shown that Latinas vary in the extent to which they are chronically suspicious of the motives underlying Whites' nonprejudiced behaviors (Major, Sawyer, & Kunstman 2013). The Suspicion of Motives Index (SOMI) assesses the extent to which people believe Whites' nonprejudiced behavior is more externally motivated by a desire to appear unprejudiced than internally motivated by a personal commitment to egalitarianism (Major, Sawyer et al., 2013). Scores on the SOMI are positively but modestly correlated with expectations of being rejected or stereotyped on the basis of ethnicity and with perceptions of discrimination against ingroup members (Major, Sawyer et al., 2013). Ethnic minorities who score high (vs. low) on SOMI are more accurate at differentiating White people's real (i.e., Duchenne) vs fake (non-Duchenne) smiles (Kunstman, Tuschere, & Trawalter, under review) and more accurate at detecting White's actual external motivation to respond without prejudice (LaCosse et al., 2015). In addition, they respond more negatively when minority targets (but not White targets) are the recipients of attributionally ambiguous positive treatment by Whites (Major, Sawyer et al., 2013). None of these studies, however, examined whether individual differences in suspicion are related to minorities' reactions when they are the recipients of attributionally ambiguous (and potentially feigned) positive evaluations.

5. Current research

The current research focused on individual differences in suspicion of Whites' motives as a moderator of Latinas' responses to positive evaluations from Whites. We predicted that the more suspicious Latinas are of Whites' motives, the more likely they are to respond to positive evaluations from Whites in ways that mirror those observed in prior research (e.g., Crocker et al., 1991; Hoyt et al., 2007; Mendes et al., 2008). Specifically, we expected that Latinas would show greater threat/avoidance in response to positive feedback received under attributionally ambiguous than non-attributionally ambiguous circumstances, but *only* if they were suspicious of Whites' motives. We tested our threat hypotheses in three experiments using both cardiovascular measures and decreases in self-esteem as our primary indices of threat. We held constant the behavior of the evaluator in each study to

minimize any potential contribution of nonverbal signals on the part of the evaluator to minorities' perceptions of the feedback. We also included measures of theoretically relevant variables that could provide alternative explanations for our effects in each experiment and examined whether suspicion could account for the predicted effects over-and-above these variables.

6. Experiment 1

Drawing on past research (Mendes et al., 2008), we reasoned that positive feedback is more attributionally ambiguous in interracial interactions than same-race interactions. Thus, we hypothesized that suspicion would predict greater threat/avoidance cardiovascular reactivity among Latinas interacting with a White partner who had evaluated them favorably but not among those interacting with a Latina partner who had evaluated them favorably. To test this hypothesis, Latina participants who varied in suspicion received a highly favorable interpersonal evaluation from a White or Latina peer based on a minimal interaction. Afterwards, they performed a memory task in her presence while their cardiovascular responses were recorded. We also measured individual differences in interpersonal rejection sensitivity (Downey & Feldman, 1996). We predicted that suspicion would moderate reactions to White partners over and above individual differences in rejection sensitivity.

6.1. Method

6.1.1. Participants

Forty-two self-identified Latina students ($M_{\text{age}} = 18.7$) who met physiological inclusion criteria (no pacemaker or heart murmur, not pregnant or using beta-blocking drugs) participated for either partial course credit or \$15. Prior to the experiment, all had completed the measure of SOMI online ($\alpha = .79$; Major, Sawyer et al., 2013). Participants also completed a shortened (6-item) version of Downey and Feldman's (1996) interpersonal rejection sensitivity scale online; $\alpha = .76$. SOMI and rejection sensitivity were positively correlated $r = .32$, $p = .04$. In the experiment, cardiovascular data failed to properly record for 11 participants, resulting in a final $N = 31$. Post-hoc power analyses (G*Power; Faul, Erdfelder, Lang, & Buchner, 2007) indicated the final sample had 54.47% ($\alpha = .05$) power to detect an interactive effect between SOMI and experimental condition on the key physiological index of threat–threat/challenge reactivity.¹

6.1.2. Procedure

Participants arrived at the laboratory individually where they met a White or Latina female confederate (one of several) and participated in rigged drawing to determine their roles for the experiment. Participants were then escorted to a private room where they provided consent and completed a demographic form. Physiological sensors were then applied and 5-min baseline cardiovascular responses were recorded.

Participants were then informed that the study concerned impression formation, and that they would interact with the student they met in the hall. They were given several moments to read their partners' demographic form, which revealed her year in school, gender, major, and ethnicity (Latina or White, corresponding to the ethnicity of the confederate). Participants learned that one of the two participants would play the role of performer and would prepare and deliver a 3-min speech on “why I would be a good friend” whereas the other

participant would play the role of evaluator and form an impression of the performer. The performer would also complete a cognitive task that the evaluator would score. Based on the initial drawing, the participant was always assigned to the role of performer.

Participants were given two minutes to prepare their speech. Afterwards, the audio and video feeds were connected so that partners believed their partner could see them, but they could not see their partners. All heard experimenters instruct “evaluators” over the intercom that they would be tasked with forming accurate impressions and deciding whether they would like to be friends and coworkers with participants. Participants then gave a 3-min speech on “why I would be a good friend.”

Following the speech, experimenters delivered the completed form to the participant. All read that their partner had given them extremely favorable evaluations, indicating that they strongly agreed with statements including “I would like to be roommates with the performer”, “I would like to get to know the performer better,” and “I would like to be close friends with the performer.”

Confederates (who were wearing fake physiological sensors to aid in the cover story and blind to hypotheses) were then brought into the room, and the cognitive task was described. Participants completed a modified version of the Reverse Digit Span Task, adapted from the Wechsler Adult Intelligence Test-III (Wechsler, 1997). The task required the participants to hear and repeat backwards strings of numbers while the evaluator ostensibly recorded and evaluated their performance. Cardiovascular responses were recorded while participants performed the memory task. This constituted the motivated performance situation necessary to obtain cardiovascular indices of threat and challenge (Blascovich & Mendes, 2010). After memory task completion, participants were disconnected from the cardiovascular recording equipment and fully debriefed. Additional exploratory measures are described in online supplementary measures.

6.1.3. Measures

To assess suspicion of motives, prior to the experiment respondents indicated their agreement with 10 items on 0 (strongly disagree) to 6 (strongly agree) scales. Five of the items reflected perceived external motives for nonprejudiced behavior on the part of Whites toward racial/ethnic minorities, e.g., “When White people act in a nonprejudiced way toward members of racial/ethnic minority groups it is because they want to avoid disapproval from others,” and five reflected perceived internal motives, e.g., “When White people act in a nonprejudiced way toward members of racial/ethnic minority groups it is because it is important to their self-concepts.” We label minority group members as “suspicious” if they believe White people are motivated to act in nonprejudiced ways more by external concerns with appearing prejudiced than by personally important egalitarian beliefs.² SOMI is calculated by subtracting scores on the perceived internal motivation subscale from the perceived external motivation subscale. SOMI scores ranged from 1.60 to -1.60 with a mean of $-.22$ ($SD = .76$; possible scores range from -6 to $+6$).

6.1.4. Cardiovascular measures

We recorded cardiac and hemodynamic measures noninvasively following guidelines established by the Society for Psychophysiological Research (e.g., Sherwood et al., 1990). Specifications are available in online supplementary materials. Responses were recorded for the 5-min baseline and the 5-min memory task periods. According to the biopsychosocial model of challenge and threat (Blascovich & Tomaka,

¹ This experiment as well as Experiments 2 and 3, are underpowered. Consequences of low power include not only a reduced chance of detecting a true effect, but also a reduced likelihood that a statistically significant result reflects a true effect. In some circumstances, however, adequate power is difficult to achieve, such as when recruiting samples of minority participants for multiple high impact studies using physiological measures. Despite the fact that we would not be able to obtain adequate power given the expense and time-consuming nature of this research, we deemed this research worth conducting based on the importance of the questions and the clear need for this type of research.

² SOMI is calculated by subtracting scores on the perceived internal motivation to avoid prejudice subscale (PIMS) from scores on the perceived external motivation to avoid prejudice subscale (PEMS). Although not the primary focus of our research, we also analyzed all dependent variables in all three studies using PEMS, PIMS, and the PEMS \times PEMS interaction as predictors in lieu of SOMI. With one exception (perceptions of the partner as insincere in Experiment 3), the PEMS \times PIMS interactions were not significant for any dependent variable and neither PEMS nor PIMS alone produced reliable effects.

1996; Blascovich & Mendes, 2010), challenge/approach states are associated with increased cardiac output (CO) but decreased systemic vascular resistance relative to baseline, which is measured as total peripheral resistance (TPR). In contrast, vascular responses dominate relative to cardiac responses in threat/avoidance states, causing vasoconstriction and resulting in increases in TPR and decreased (or similar) CO from baseline. Although sometimes labeled as discrete states, cardiovascular reactivity profiles of challenge and threat reflect opposite ends of a single continuum, thus relative differences in challenge and threat are meaningful.

Following well-established protocol (e.g., Blascovich, Seery, Mugridge, Norris, & Weisbuch, 2004; Cihangir, Scheepers, Barreto, & Ellemers, 2013; de Wit, Scheepers, & Jehn, 2012; Lupien, Seery, & Almonte, 2012; Moore, Vine, Wilson, & Freeman, 2012; Scheepers, de Wit, Ellemers, & Sassenberg, 2012; Seery, Leo, Lupien, Kondrak, & Almonte, 2013), we computed a single Threat-Challenge Reactivity Index (TCRI) for ease of analysis and discussion. We calculated the TCRI by converting each participant's TPR and CO reactivity values during the memory task into z-scores and summing them. We assigned TPR reactivity a weight of +1 and CO reactivity a weight of -1, such that a larger value corresponds to a greater threat/avoidance pattern of reactivity. Because the theory expects TPR and CO reactivity to respond in complementary fashions (in challenge, TPR is low and CO is high; in threat, TPR is high and CO is low), using the threat-challenge reactivity index is like creating a scale from two indices, increasing the reliability of the measure. As scored, higher scores on the TCRI reflect greater threat/avoidance motivation relative to challenge/approach motivation.

6.2. Results

There were no differences in interpersonal rejection sensitivity or SOMI by condition, ($t_s < 1.5, p > .20$). There also were no baseline differences in TPR or CO. Following established protocol, we first established that participants were psychologically engaged during the memory task (Mendes, Reis, Seery, & Blascovich, 2003). One-sample t-tests confirmed that both heart rate and ventricular contractility during the memory task showed a significant increase from baseline (p 's $> .001$). We then calculated the TCRI collapsing across all five minutes of the memory task phase. We subjected the resulting TCRI to a moderated regression analysis in which we entered mean-centered rejection sensitivity, condition (coded -1 *Latina*, 1 *White*), mean-centered SOMI, and the condition \times SOMI interaction as predictors.^{3,4}

We observed a negative relationship between TCRI and the rejection sensitivity covariate, $\beta = -.41, t(26) = -1.98, p = .06, r$ partial = $-.36$, indicating that the higher people were in rejection sensitivity, the more they tended to show a challenge/approach profile during the memory task (recall that all participants had just been positively evaluated by their partner). Neither the conditional main effect of condition nor the main effect of SOMI was significant (p 's $> .30$). Importantly, the predicted SOMI \times condition interaction on TCRI was significant, $\beta = .38, t(26) = 2.16, p = .04, r$ partial = $.39$. As shown in Fig. 1, among Latinas interacting with a White partner, scores on the SOMI were positively related to greater threat/avoidance while

performing the memory task, $\beta = .62, t(26) = 2.00, p = .06, r$ partial = $.37$. In contrast, among Latinas interacting with a same-ethnicity partner, scores on the SOMI were unrelated to TCRI during the memory task, $\beta = -.21, t(26) = -.76, p > .40, r$ partial = $-.15$. As expected, suspicious participants (+1 SD on SOMI) were significantly more threatened when interacting with a White partner versus a Latina partner who had evaluated them favorably ($\beta = .57, p = .04$). In contrast, the TCRI among nonsuspicious participants (-1 SD on SOMI) did not differ significantly by ethnicity of partner ($\beta = -.29, p > .30$). Suspicious participants interacting with a same-ethnicity partner, and nonsuspicious participants irrespective of ethnicity of partner, showed relatively more challenge/approach than threat/avoidant cardiovascular reactivity following positive feedback.

6.3. Discussion

As theorized, ethnic minorities' suspicions about Whites' motives predicted their patterns of cardiovascular reactivity under attributionally ambiguous circumstances, but not when attributional ambiguity was removed. Specifically, greater suspicion predicted relatively greater threat/avoidance among Latinas interacting with *White peer* who had evaluated them favorably but not among those interacting with a *Latina peer* who had given them the same positive evaluation. This pattern of findings supports our premise that suspicion of motives is related to an increase in the perceived demands of ostensibly positive but attributionally ambiguous interethnic interactions, leading them to be experienced as threatening (Mendes et al., 2008). Experiment 1 further showed that suspicion of Whites' motives predicted reactions to feedback controlling for general interpersonal rejection sensitivity.

7. Experiment 2

In Experiment 2 we sought to test another key theoretical premise: that suspicion of Whites' motives for nonprejudiced behavior predicts increased threat/avoidance as indexed by cardiovascular reactivity among ethnic minorities evaluated *favorably* by a White peer, but not among minorities evaluated *unfavorably* by a White peer. We also tested whether higher suspicion scores would predict increased self-reports of stress among participants given positive, but not negative, evaluations by a White peer. Importantly, we did not expect individual differences in suspicion to predict reactions to negative evaluations because the SOMI scale is specific to perceptions of Whites' motives for engaging in *positive, nonprejudiced* behaviors. We expected minority participants who received negative interpersonal feedback from White evaluators to show a challenge/approach pattern of cardiovascular reactivity, irrespective of suspicion. According to the biopsychosocial model, a challenge/approach pattern of cardiovascular reactivity is associated with both negative (e.g. anger) and positive (e.g., eager) high arousal emotions (Mendes et al., 2008). Consistent with this theorizing, prior research found that both Black and White participants evaluated negatively by a member of the other race showed challenge/approach cardiovascular reactivity (Mendes et al., 2008). Finally, in Experiment 2 we examined whether SOMI predicted threat following positive feedback above and beyond individual differences in stigma consciousness (Pinel, 1999). Stigma consciousness assesses chronic expectations of being negatively stereotyped on the basis of group membership.

7.1. Method

7.1.1. Participants

Sixty-seven self-identified Latina female college students ($M_{\text{age}} = 19.07$ years) participated in exchange for course credit or payment. All met physiological criteria for inclusion (see Experiment 1). Sixty-three had previously completed the 10-item measure of SOMI online ($\alpha = .71$). SOMI scores ranged from -2.8 to 2 with a mean of $-.42$ ($SD = 1.01$). Participants also completed a shortened version of the Stigma

³ We also ran analyses without the covariate of rejection sensitivity included in the model. For TCRI, the interaction between condition and SOMI became nonsignificant, $\beta = .28, t(27) = 1.60, p = .12, r$ partial = $.29$. Importantly, however, among suspicious Latinas (+1 SD on SOMI), the simple effect of condition on TCRI remained significant, $\beta = .60, t(27) = 2.15, p = .04, r$ partial = $.38$.

⁴ We also ran similar analyses on cardiac output (CO) reactivity and total peripheral resistance (TPR) reactivity separately. These revealed a pattern of results consistent with the analysis of TCRI. The SOMI by condition interaction on TPR was significant, $\beta = .35, t(26) = 2.04, p = .05$, and the SOMI by condition interaction on CO was in the predicted direction, $\beta = -.26, t(26) = -1.43, p = .16$. In the White partner condition, SOMI scores were positively related to TPR, $\beta = .64, p = .04$, and negatively but not significantly related to CO, $\beta = -.37, p = .26$.

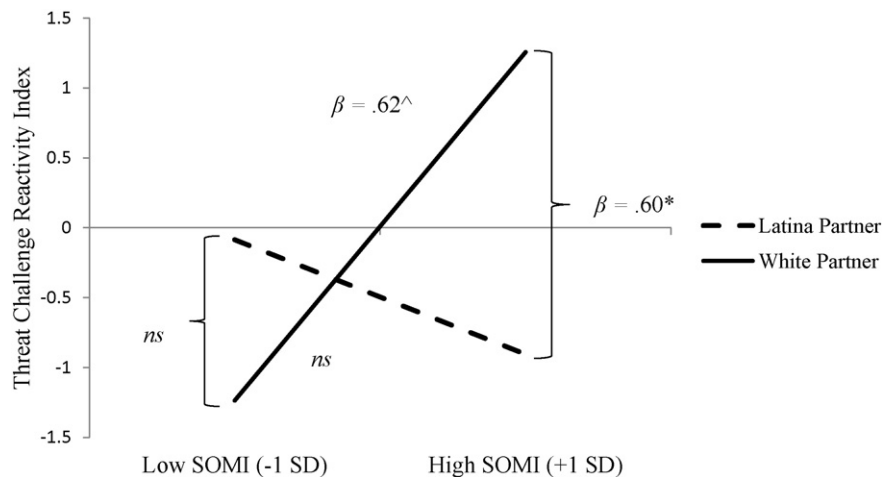


Fig. 1. Experiment 1. Threat Challenge Reactivity Index (TCRI) during task as a function of SOMI and partner ethnicity, controlling for interpersonal rejection sensitivity. Larger values indicate greater threat/avoidance relative to challenge/approach. * $p < .05$, $\hat{p} < .10$.

Consciousness scale (Pinel, 1999) online prior to the experiment (e.g., “When interacting with others, I feel like they interpret all my behaviors in terms of my ethnic group membership;” $\alpha = .69$). Stigma Consciousness and SOMI were positively but not significantly correlated, $r = .16$, $p > .20$.

Equipment malfunctions resulted in a failure to properly record cardiovascular data for 8 participants during the interview phase of the experiment and 10 participants during the memory task phase. This resulted in complete data for 55 participants during the interview phase and 53 participants during the memory task phase. Post-hoc power analysis indicated that this sample had 40.47% ($\alpha = .05$) power to detect a significant interactive effect of SOMI and condition on cardiovascular reactivity during the interview and 55.68% ($\alpha = .05$) power to detect this interactive effect during the memory task.

7.1.2. Procedure

Participants met a White female confederate (one of several) outside of the lab, where they took part in a rigged drawing to determine study roles. The participants were always assigned to be “applicants” and the confederates to be “interviewers.” Participants were then led to a private room, physiological sensors were applied, and a 5-min cardiovascular baseline reading was recorded.

Participants then learned the study would be structured like a job interview. As the applicant, they would deliver a short introductory speech, receive feedback from their partner (the evaluator), and then take part in an interview and a cognitive task with the evaluator, who would decide at the end of interaction whether the applicant should be hired. Participants were further informed participants who were hired would be entered into a raffle for a \$50 prize.

Participants next viewed the demographic form ostensibly completed by their partner, indicating that she was a sophomore female who self-identified as White. They believed that their partner was also viewing their form. Participants then prepared for their speech (2 min) and delivered a 3-min speech introducing themselves while facing a video camera. After finishing the speech, participants received written feedback from their partner consisting of ratings on several dimensions, including intelligence and likeability, on 1–7 scales. For participants in the *positive* feedback condition, the partner had circled 6’s and 7’s, and had written at the bottom “I am really impressed with her!” Participants in the *negative* feedback condition saw that their partner had circled 3’s, 4’s, and 5’s, and had written “I wasn’t all that impressed with her.”

Participants were given one minute to read the feedback before their partner (the confederate, who was blind to feedback condition) was brought into the room to begin the interview. Participants were

informed that the partner would ask five questions, prepared by the researchers, one per minute (e.g., “Why do you think you should be hired for this position? “How would you manage employees who were of a different cultural background than yours?”). Afterwards they performed the same memory task as in Experiment 1 while their partner ostensibly recorded their performance. Cardiovascular responses were recorded during both the question-and-answer interview and the memory task. Confederates were trained to not give any verbal or nonverbal feedback during the interview or memory task. At the conclusion of the study, participants were fully and sensitively debriefed.

7.1.3. Dependent measures

7.1.3.1. Cardiovascular measures. Cardiac and hemodynamic responses were recorded using the same equipment and following the same protocols as in Experiment 1. Responses were recorded for the 5-min baseline, 5-min interview, and 5-min memory task periods. We computed a Threat–Challenge index of cardiovascular reactivity (TCRI) during the interview phase and during the memory task phase.⁵

7.1.3.2. Perceived stress. After completing the memory task, participants were asked how stressed they had felt during the interview on a 0 (*not at all*) to 6 (*very much*) scale.

Additional measures are described in online supplementary materials.

7.2. Results

7.2.1. Analytical approach

There were no differences in stigma consciousness or SOMI by condition, ($t_s < 1.5$, $p_s > .20$). We subjected all dependent measures to moderated regression analyses in which we entered mean-centered stigma

⁵ We also analyzed CO reactivity and TPR reactivity separately. These analyses revealed a pattern of results consistent with the analysis of TCRI reported here. The SOMI by condition interaction on TPR reactivity during the memory task was significant, $\beta = .29$, $t(47) = 2.05$, $p = .046$, and the SOMI by condition interaction on CO reactivity during the memory task showed a trend in the predicted direction, $\beta = -.27$, $t(47) = -1.85$, $p = .07$. In the positive feedback condition, SOMI scores were positively related to TPR, $\beta = .48$, $p = .026$, and tended to be negatively related to CO, $\beta = -.37$, $p = .09$.

consciousness, feedback condition (coded -1 negative, 1 positive), mean-centered SOMI, and the interaction between condition and SOMI as predictors.⁶

7.2.1.1. Cardiovascular reactivity. As in Experiment 1, we first established that participants were psychologically engaged during the interview and task phases. One-sample *t*-tests confirmed that both heart rate and ventricular contractility during these phases showed a significant increase from baseline (p 's $< .001$). We then collapsed across the five minutes of the interview to yield a single TCRI for the interview phase, and across the five minutes of the memory task to yield a single TCRI for this phase.

There were no differences by feedback condition on baseline CO and TPR values (p 's $> .30$). However, higher SOMI values were related to lower TPR baseline values ($r = -.31, p = .02$), and SOMI was marginally positively correlated with baseline CO ($r = .21, p = .10$). Hence all tests of our predictions on TCRI included baseline CO and TPR as covariates.⁷

The predicted interaction between SOMI and feedback condition on TCRI during the *interview* was in the expected direction, although not significant, $\beta = .23, t(48) = 1.68, p = .10, r$ partial = .23. In the positive feedback condition, higher suspicion tended to be related to greater threat/avoidance reactivity during the interview, $\beta = .37, t(48) = 1.73, p = .09, r$ partial = .24. In contrast, in the negative feedback condition, suspicion was unrelated to the TCRI, $\beta = -.09, t(48) = -.49, p > .60, r$ partial = $-.07$. Probed differently, among suspicious individuals ($+1$ SD on SOMI), positive feedback tended to elicit more threat/avoidance than did negative feedback, $\beta = .35, t(48) = 1.81, p = .08, r$ partial = .25. By comparison, nonsuspicious participants (-1 SD on SOMI) did not differ on the TCRI between conditions, $\beta = -.08, t(48) = -.54, p = .59, r$ partial = $-.08$. The predicted SOMI \times feedback interaction on TCRI during the *memory task* was significant, $\beta = .32, t(46) = 2.09, p = .04, r$ partial = .30 (see Fig. 2). Among those who had been evaluated favorably, higher suspicion was associated with significantly greater threat/avoidance, $\beta = .46, t(46) = 2.15, p = .04, r$ partial = .30. In contrast, among those who had been evaluated unfavorably, the relationship between SOMI and TCRI was not significant, $\beta = -.17, t(46) = -.81, p > .40, r$ partial = $-.12$. Suspicious ($+1$ SD) Latinas exhibited relatively more threat/avoidance following positive feedback compared to negative feedback, $\beta = .42, t(46) = 2.02, p = .05, r$ partial = .29. In contrast, the TCRI of less suspicious participants (-1 SD) did not significantly differ following positive or negative feedback, $\beta = -.19, t(47) = -1.01, p > .30, r$ partial = $-.15$. No other effects reached significance ($ps > .30$).

7.2.1.2. Self-reported stress. Participants who had been evaluated negatively reported feeling more stressed during the interview than participants who had been evaluated positively, $\beta = -.26, t(58) = -2.12, p = .04, r$ partial = $-.27$. This conditional main effect was qualified by a SOMI \times Condition interaction that approached significance, $\beta = .22, t(58) = 1.84, p = .07, r$ partial = .24 (see Fig. 3). Suspicion was associated with increased feelings of stress in the *positive* feedback condition, $\beta = .40, t(58) = 2.19, p = .03, r$ partial = .28, but was unrelated to stress in the *negative* feedback condition, $\beta = -.05, t(58) = -.31, p > .60, r$ partial = $-.04$. Furthermore, whereas nonsuspicious participants (-1 SD on SOMI) felt more stressed when being interviewed by

an evaluator who had evaluated them negatively than one who had evaluated them positively, $\beta = -.48, t(58) = -2.80, p = .007, r$ partial = $-.35$, suspicious participants ($+1$ SD on SOMI) reported feeling just as stressed when interviewed by a positive evaluator as a negative evaluator, $\beta = -.04, t(58) = -.21, p > .80, r$ partial = $-.03$.

7.3. Discussion

Consistent with predictions, Experiment 2 showed that suspicion of Whites' motives for nonprejudiced behavior predicted increased threat/avoidance among ethnic minorities who received *positive* feedback from a White peer but not among ethnic minorities who received *negative* feedback from a White peer. Furthermore, greater suspicion was associated with increased feelings of stress among minorities who received positive feedback but not among those who received negative feedback. Irrespective of their level of suspicion, participants evaluated negatively by an outgroup partner showed more challenge/approach than threat/avoidance cardiovascular reactivity. This is consistent with the theoretical premise that challenge motivation is associated with high arousal emotions that are negative (e.g. anger) as well as positive (e.g., eager) in valence, as well as with past research showing a challenge pattern of cardiovascular reactivity among participants rejected by an outgroup peer (Mendes et al., 2008). Finally, individual differences in suspicion of Whites' motives predicted responses to feedback above and beyond individual differences in stigma consciousness.

8. Experiment 3

In Experiment 3 we extended our predictions to a different operationalization of threat – decreased self-esteem. Decreases in self-esteem are widely used to index threat in social psychology (e.g., Leary et al., 1995), and have been a hallmark index of threat from the inception of attributional ambiguity theory (Crocker & Major, 1989; Crocker et al., 1991). Experiment 3 also directly manipulated contextual cues to attributional ambiguity by leading Latina participants to believe that the White peer who had evaluated them favorably either did, or did not, know their ethnicity. This was the paradigm used in the original attributional ambiguity study by Crocker et al. (1991). Building on their paradigm, as well as our person \times situation perspective, we predicted that increased threat (as indexed by decreased self-esteem) following positive feedback would be observed only among Latinas who both believed the White evaluator knew their ethnicity and were high in chronic suspicion of Whites' motives. Only when the evaluator knew the recipient's ethnicity could concerns about appearing prejudiced be perceived as influencing the evaluation, thus making it attributionally ambiguous.

In addition, in Experiment 3, just prior to receiving feedback, we asked participants how positively they expected to be evaluated by their partner. This helped us to determine whether suspicious participants are more likely than nonsuspicious participants to expect rejection when they believe their ethnicity is known by a White evaluator. We also assessed individual differences in race-rejection sensitivity, i.e., anxious expectations of rejection due to race or ethnicity (Mendoza-Denton et al., 2002). We predicted that SOMI would moderate reactions to White partners over and above individual differences in race-rejection sensitivity.

We also tested two secondary hypotheses in Experiment 3. First, we tested the hypothesis that among participants who believed their ethnicity was (vs. was not) known, higher suspicion would be related to increased perceptions of the partner as disingenuous or insincere. Second, we tested the hypothesis that among participants who believed their ethnicity was (vs. was not) known, higher suspicion would also be related to increased feelings of subjective uncertainty. Finally, we examined the relationships among perceptions of partner insincerity, feelings of uncertainty, and self-esteem. Given our low *N* we did not have sufficient power to conduct full mediational analyses.

⁶ The magnitude and significance level of the effects reported did not change when stigma consciousness was excluded as a covariate.

⁷ Baseline CO and TPR are often included as covariates in analyses of reactivity scores when there is reason to believe that there are meaningful individual differences in physiological response at baseline. Changes in physiological responses are limited by the law of initial values, which asserts that the magnitude of a phasic psychophysiological response is dependent on the initial baseline level (Berntson, Uchino, & Cacioppo, 1994). Because SOMI was associated with baseline levels of CO and TPR in Experiment 2, we included baseline levels as a covariate in the analyses of reactivity scores in this experiment.

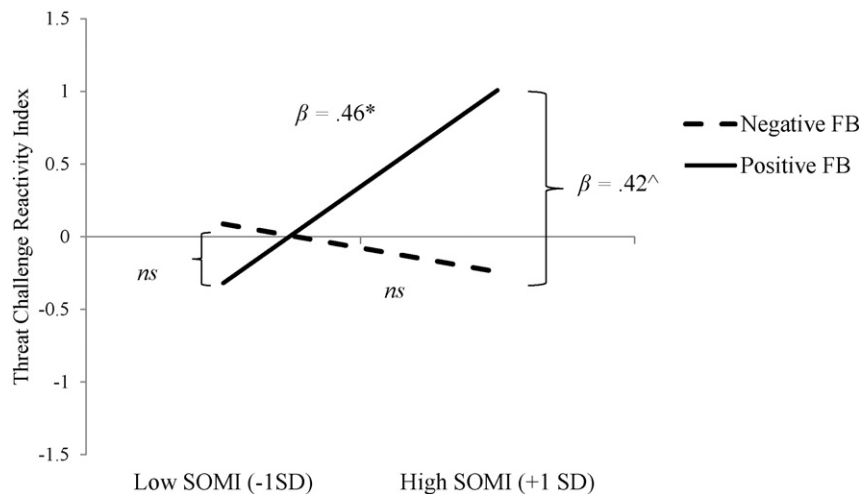


Fig. 2. Experiment 2. Threat Challenge Reactivity Index (TCRI) during memory task as a function of participants' SOMI and feedback condition, controlling for baseline CO and TPR, and stigma consciousness. Large values indicate greater threat. * $p < .05$, $\wedge p = .05$.

8.1. Method

8.1.1. Participants

Eighty-four self-identified Latina students ($M_{\text{age}} = 18.7$) participated for either partial course credit or \$5. Participants completed the 10-item SOMI scale ($\alpha = .73$) online prior to the experiment. SOMI scores ranged from -3.8 to 2.6 , with a mean of $-.12$ ($SD = 1.25$). Participants also completed a shortened version of the race-rejection sensitivity scale ($\alpha = .79$) online prior to the experiment. The race rejection sensitivity measure consisted of 4 scenarios (e.g., "Imagine that you are in a restaurant, trying to get the attention of your waitress. A lot of other people are trying to get her attention as well."). For each scenario, participants rated the degree to which they would be concerned that rejection on the basis of their race/ethnicity would occur (*very unconcerned* 1 to *very concerned* 6), and their expectations for how likely the other person would be to engage in the rejecting behavior (*very unlikely* 1 to *very likely* 6). Following standard procedures, expectations and concerns for each scenario were multiplied and then averaged across the 4 scenarios. Pilot testing revealed that responses on the 4-item measure were highly correlated with the original 12-item measure of race-rejection sensitivity (Mendoza-Denton et al., 2002). SOMI was positively and significantly correlated with race-rejection sensitivity ($r = .30$, $p = .01$).

Responses to manipulation checks given at the end of the experiment revealed that all participants correctly indicated that their partner was White, but four participants in the *ethnicity-unknown* condition incorrectly indicated that their partner knew their race/ethnicity. In addition, four participants in the *race-known* condition refused to have their picture taken, and one participant did not complete the measure of race-rejection sensitivity. These nine participants were excluded from analyses, resulting in a final sample of 72 participants. The final sample had 58.68% ($\alpha = .05$) power to detect an interactive effect between SOMI and experimental condition on indices of self-esteem, 53.85% power to detect an interactive effect on uncertainty, and 78% power to detect an interaction on perceived insincerity.

8.1.2. Procedure

Participants expected to take part in an "Online Impressions" study. Upon arrival at the lab, they learned that their "partner" (who did not really exist) was scheduled to participate in another part of the building, and they would be connecting via an online system. Participants learned that the online system would randomly assign them to either construct a profile or evaluate their partner's profile. The system was rigged so that participants were always assigned to construct the profile. Before

doing so, each participant saw a picture of her ostensible partner and learned that she was a 19 year old, White, female, psychology student.⁸

Constructing the profile required participants to write an "about me" essay and answer supplemental questions (i.e., age, major, year in school, and hometown). Participants in the *ethnicity-known* condition also had their picture taken and indicated their race/ethnicity on their profile, while participants in the *ethnicity-unknown* condition did not have their picture taken and did not indicate their race/ethnicity. Participants submitted their profile to their partner via the online system. While waiting for their evaluation, participants indicated how they expected their partner to evaluate them.

All participants received the same highly positive feedback via the online system indicating that the partner strongly agreed with statements such as "I would like to get to know my partner more," "My partner is the type of person I could see myself hanging out with," and "I think my partner is generous." Participants also saw that their partner had written, "You seem terrific! I would love to work with you!" After viewing the feedback, participants indicated their feelings, self-esteem, and perceptions of their partner in that order, answered manipulation checks, and were debriefed. See online supplementary materials for additional measures completed.

8.1.3. Dependent measures

8.1.3.1. Interaction-specific evaluation expectations. Just prior to receiving feedback, we asked participants how positively they expected to be evaluated by their partner as a potential friend and co-worker on scales ranging from 1 (*extremely negatively*) to 9 (*extremely positively*). These were positively correlated, $r = .59$, $p < .001$ and were thus combined.

8.1.3.2. Subjective uncertainty. Just after receiving feedback, we asked participants to indicate the extent to which they felt certain (reverse-scored), uncertain, and skeptical in that moment on 1 (*not at all*) to 9 (*extremely*) scales ($\alpha = .85$).

State self-esteem was assessed with the 7-item social self-esteem subscale of Heatherton and Polivy's (1991) State Self-Esteem Scale (e.g., "I am worried about what others think of me"). All items were answered on 1 (*not at all*) to 5 (*extremely*) scales ($\alpha = .82$).

8.1.3.3. Perceived partner insincerity. Finally, participants rated how genuine, honest, and fake they believed their partner to be on a 0 (*not at all*)

⁸ Participants were randomly assigned to see one of three different pictures; no differences in results as a function of picture were observed ($ps > .50$).

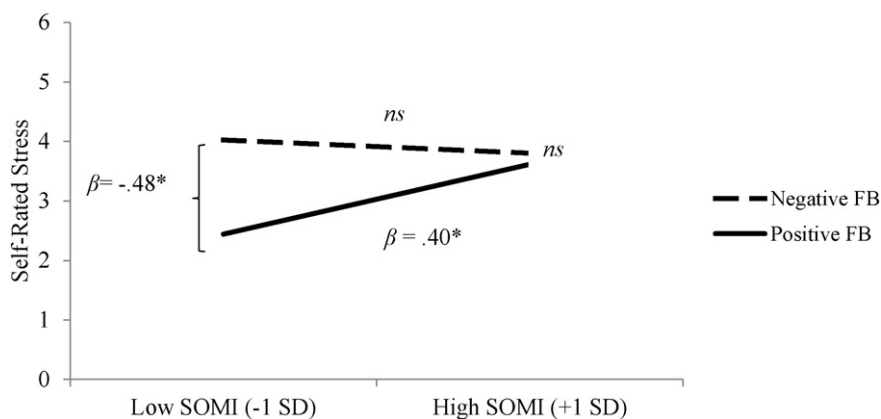


Fig. 3. Experiment 2. Self-reported feelings of stress during interview as a function of SOMI and feedback valence, controlling for stigma consciousness. * $p < .05$.

to 6 (*extremely*) scales. Items were reverse scored as appropriate and combined into a measure of perceived partner insincerity, $\alpha = .89$.⁹

8.2. Results

8.2.1. Analytical approach

There were no differences in race-rejection sensitivity or SOMI by condition, ($t_s < .5$, $p_s > .25$). We subjected all dependent measures to moderated regression analyses in which we entered mean-centered race-rejection sensitivity, condition (coded -1 *unknown*, 1 *known*), mean-centered SOMI, and the interaction between condition and SOMI as predictors.¹⁰

8.2.2. Interaction-specific evaluation expectations

Neither condition, $\beta = -.17$, $t(66) = -1.38$, $p = .17$, SOMI, $\beta = .002$, $t(66) = .011$, $p = .99$, their interaction, $\beta = -.15$, $t(66) = -1.12$, $p = .27$, nor race-rejection sensitivity, $\beta = .03$, $t(66) = .25$, $p = .81$, was a significant predictor of friend/coworker evaluation expectations.

8.2.3. State self-esteem

A significant conditional main effect of SOMI on self-esteem, $\beta = -.43$, $t(66) = -3.31$, $p = .001$, was qualified by the predicted significant SOMI \times Condition interaction, $\beta = -.27$, $t(66) = -2.18$, $p = .03$, r partial = $-.26$ (see Fig. 4). As predicted, when participants believed their ethnicity was *known*, higher SOMI scores were associated with significantly *lower* state self-esteem, $\beta = -.70$, $t(66) = -3.27$, $p = .002$, r partial = $-.37$. In contrast, when participants believed their ethnicity was *unknown*, the relationship between SOMI scores and state self-esteem was not significant, $\beta = -.15$, $t(66) = -1.13$, $p = .26$, r partial = $-.14$. Looked at another way, the self-esteem of participants higher in suspicion ($+1$ SD on SOMI), tended to be higher following positive feedback if their ethnicity was *not* known than if it was known to their evaluator, $\beta = -.28$, $t(66) = -1.68$, $p = .10$, r partial = $-.20$. In contrast, among participants lower in suspicion (-1 SD on SOMI), self-esteem tended to be higher if their ethnicity was (vs. was not) known $\beta = .25$, $t(66) = 1.56$, $p = .12$, r partial = $.20$. Race rejection-sensitivity was not a significant predictor of state self-esteem, $\beta = -.13$, $t(66) = -1.09$, $p = .28$, and the main effect for condition was not significant ($p = .96$).

⁹ Participants also rated how biased they believed their partner to be on a 0 (*not at all*) to 6 (*extremely*) scale. We omitted biased from the composite because it made the composite unreliable. Analysis of the bias variable alone revealed no significant effects ($p_s > .20$).

¹⁰ Excluding race rejection-sensitivity as a covariate did not change the magnitude or significance level of the effects reported.

8.2.4. Feelings of uncertainty

The predicted SOMI \times Condition interaction was significant for feelings of uncertainty, $\beta = .27$, $t(66) = 2.02$, $p = .048$, r partial = $.24$. When participants believed their ethnicity was *known*, higher SOMI scores tended to be associated with greater feelings of uncertainty, $\beta = .41$, $t(66) = 1.77$, $p = .08$, r partial = $.21$. In contrast, when participants believed their ethnicity was *unknown*, the relationship between SOMI and feelings of uncertainty was not significant, $\beta = -.13$, $t(66) = -.91$, $p = .36$, r partial = $-.11$. Feelings of uncertainty did not significantly differ by condition among participants higher ($+1$ SD; $\beta = .26$, $t(66) = 1.49$, $p = .14$, r partial = $.18$) or lower (-1 SD; $\beta = -.28$, $t(66) = -1.51$, $p = .14$) in suspicion. Race rejection-sensitivity was not a significant predictor of uncertainty, $\beta = .03$, $t(66) = .21$, $p = .84$. No other effects were significant.

8.2.5. Perceptions of partner's insincerity

We also observed a significant SOMI \times Condition interaction on participants' ratings of their partner as insincere, $\beta = .34$, $t(66) = 2.58$, $p = .01$, r partial = $.30$. When participants believed their ethnicity was *known*, higher suspicion was associated with significantly greater perceptions of partner insincerity, $\beta = .66$, $t(66) = 2.95$, $p = .004$, r partial = $.34$. In contrast, when participants believed their ethnicity was *unknown*, there was no relationship between suspicion and perceptions of insincerity, $\beta = -.02$, $t(66) = -.12$, $p = .91$, r partial = $-.02$. Among suspicious participants ($+1$ SD on SOMI) perceptions of partner's insincerity tended to be higher when ethnicity was known, versus when it was not known, $\beta = .27$, $t(66) = 1.60$, $p = .12$, r partial = $.19$, whereas the reverse pattern emerged for participants lower in suspicion (-1 SD on SOMI), $\beta = -.40$, $t(66) = -2.23$, $p = .03$, r partial = $-.26$. No other effects were significant.

8.2.6. Exploratory analyses

According to our theorizing, the suspicion that Whites are motivated to act in nonprejudiced ways more for external rather than internal reasons can, under attributionally ambiguous circumstances, lead ethnic minorities to judge Whites who evaluate them positively as insincere or disingenuous. This perception leads to feelings of subjective uncertainty among recipients of positive feedback, which increases threat as indexed by cardiovascular reactivity and decreased state self-esteem. Consistent with our reasoning, in the ethnicity known condition, where attributional ambiguity is predicted to be high, we found that perceptions of partner insincerity were significantly related to greater feelings of uncertainty ($r = .54$, $p < .001$) and decreased state self-esteem ($r = -.47$, $p = .003$). Greater uncertainty was also significantly inversely related to self-esteem ($r = -.49$, $p = .001$). By contrast, in the ethnicity unknown condition, although perceived insincerity again related to experienced uncertainty ($r = .79$, $p < .001$), neither

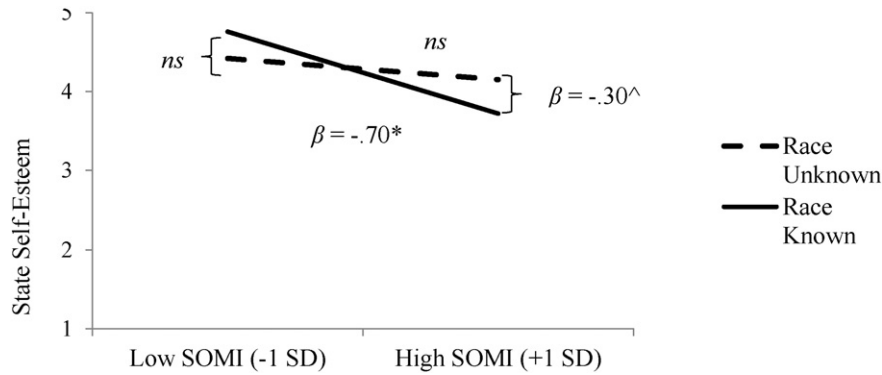


Fig. 4. Experiment 3. State social self-esteem as a function of SOMI and condition, controlling for race-rejection sensitivity. * $p < .05$, $\hat{p} < .10$.

insincerity nor uncertainty was related to state self-esteem ($r_s < .10$, $p > .60$). Hence, under conditions in which attributional ambiguity was expected to be high, perceived insincerity and uncertainty were negatively related to Latinas' self-esteem, but when attributional ambiguity was likely low, these relationships were attenuated.

8.3. Discussion

Experiment 3 provided additional support for our theoretical model. When Latinas believed that a White peer who had evaluated them favorably knew their ethnicity, they showed lower state self-esteem, perceived their evaluator as more insincere, and felt more uncertain the more suspicious they were of Whites' motives for nonprejudiced behavior in general. In contrast, when participants believed that their positive evaluator did *not* know their ethnicity, suspicion of motives did not predict any of these responses. Thus, suspicion of motives was related to responses only when attributional ambiguity was high; under these circumstances, suspicion was related to multiple aspects of social cognition, moderating Latinas' perceptions of others, their affect (i.e., uncertainty), and their feelings about themselves.

Although we did not have sufficient power to fully test our model, correlational analyses indicated that among participants who believed their evaluator was aware of their ethnicity, greater perceptions of partner insincerity were correlated with both greater subjective uncertainty and lower state self-esteem. Furthermore, uncertainty had a significant inverse relationship with self-esteem in the ethnicity-known condition, but was unrelated to self-esteem in the ethnicity-unknown condition. Experiment 3 thus advances prior research by providing suggestive evidence of the mechanism underlying threat reactions among ethnic minorities to attributionally ambiguous positive feedback from Whites (Crocker et al., 1991; Hoyt et al., 2007). Only minorities who are highly suspicious of Whites' motives for providing positive feedback are threatened by attributionally ambiguous feedback and this threat is related to the perception that evaluators are insincere and the feeling of uncertainty it creates.

Finally, Experiment 3 demonstrated that Latinas who scored high vs. low in suspicion of motives did not differ in the extent to which they expected their partner to like them as a friend or co-worker. In addition, all of the observed effects were significant when we controlled for race-based rejection sensitivity.

8.4. Meta-analysis

We performed a meta-analysis to examine the strength and reliability of the relationship of suspicion to threat/avoidance under conditions of high attributional ambiguity across the three studies. To do so, we calculated the overall significance and effect size for the simple effect of SOMI on threat (TCRI assessed during the memory task phase and state self-esteem) when attributional ambiguity was high [i.e., partners were White (Experiment 1), partners provided positive

feedback (Experiment 2), and participants believed their ethnicity was known (Experiment 3)]. To consistently represent threat/avoidance with greater positive values, the sign of SOMI's effect on state self-esteem was reversed to positive. Following procedures outlined by Rosenthal and Rosnow (1991), effects were weighted by their respective degrees of freedom (df). Across the three studies, when minorities received positive feedback from Whites who knew their ethnicity, the effect of suspicion on threat was significant ($z = 4.10$, $p < .001$). When weighted by their df , the studies yielded an overall effect size of $r = .34$, 95% CI = (.30, .38). Consistent with past work on cardiovascular and self-esteem indices of threat (e.g., Dover, Major, Kunstman, & Sawyer, 2015; Hoyt et al., 2007; Mendes et al., 2008), this meta-analysis parsimoniously reinforces the point that when situational ambiguity is high, suspicion of motives reliably predicts a medium-sized threat effect.

9. General discussion

Over the past fifty years, social and legal sanctions against expressing racial prejudice have increased in the United States. Although these social norms have been instrumental in reducing pervasive and overt racism, they have also had unintended consequences on interracial dynamics. To avoid the appearance of prejudice, many Whites carefully monitor their actions in interracial interactions, and amplify positive and conceal negative responses toward racial and ethnic minority group members (Croft & Schmader, 2012; Mendes & Koslov, 2013; Shelton, Richeson, & Salvatore, 2005). Surprisingly, almost no research has examined how perception of these social norms relates to ethnic minorities' reactions to evaluations within interracial interactions.

We theorize that the perception of strong social norms discouraging expression of bias against minorities has increased the attributional ambiguity of Whites' positive behavior to ethnic minorities. In particular, these norms have created a salient external motive for a White individual to give positive feedback to an ethnic minority target — fear of looking prejudiced. Minorities who suspect that Whites' positive overtures toward minorities are motivated more by their fear of appearing racist than by egalitarian attitudes may regard positive evaluators as insincere, causing them to react to positive feedback with feelings of uncertainty which increases threat/avoidance motivation (Mendes et al., 2007). Thus we predicted that under conditions of attributional ambiguity, minorities who are suspicious of Whites' motives would react to positive evaluations from Whites with threat/avoidance. Three studies using multiple operationalizations of threat provided convergent evidence in support of this hypothesis.

As predicted, the more ethnic minorities (i.e., Latinas) were suspicious of Whites' motives for nonprejudiced behavior, the more threat/avoidance they displayed in response to positive feedback from a White peer who knew their ethnicity, as evidenced both by their cardiovascular reactivity profile (Experiment 1 and 2), and decreased self-esteem (Experiment 3). When receiving positive feedback from a

White peer, the more suspicious minorities were, the more they also reported feeling stress (Experiment 2), the more they perceived their evaluator as insincere (Experiment 3) and the more subjective uncertainty they reported experiencing (Experiment 3). Furthermore, when they believed their ethnicity was known, perceptions of White partners as insincere and experienced uncertainty were associated with lower self-esteem (Experiment 3).

Consistent with our person \times situation perspective, chronic beliefs about Whites' motives were related to minorities' responses to positive feedback *only* when activated by cues in the situation that made the feedback attributionally ambiguous. Individual differences in suspicion of motives did *not* predict psychological or physiological reactions to feedback received under less ambiguous circumstances: from a same-ethnicity peer (Experiment 1), to negative feedback from a White peer (Experiment 2), or to positive feedback from a White peer who the participants thought did not know their ethnicity (Experiment 3). Collectively, these results illustrate the importance of considering both the person and situation when considering minorities' responses to intergroup interactions.

The current research also showed that Latinas' beliefs about Whites' motives predicted greater threat/avoidance following positive feedback from Whites over and above individual differences in interpersonal rejection sensitivity (Experiment 1), ethnic stigma consciousness (Experiment 2), and race-based rejection sensitivity (Experiment 3). Thus, although greater suspicion of Whites' motives is modestly associated with more negative intergroup perceptions and greater race-based rejection expectations among minorities (Major, Sawyer et al., 2013), these studies illustrate that suspicion of Whites' motives for nonprejudiced behavior uniquely relates to responses to positive feedback in intergroup interactions.

9.1. Contributions and implications of the current work

This work extends prior research on intergroup relations in a number of important ways. Whereas a substantial amount of research has examined how Whites' racial attitudes, beliefs, and motivations for prejudiced (or nonprejudiced) behavior affect interracial interactions, individual differences in ethnic minorities' beliefs and their implications for interracial interactions have been relatively neglected in the social psychological literature. The current work extends prior research by focusing on differences *within* minority groups and *person by situation interactions* as determinants of cognition, affect, and physiology in intergroup interactions. The current work also extends prior research by focusing on how ethnic minorities respond to *positive evaluations* in intergroup interactions. Findings highlight the limitations of assuming that all members of minority groups respond the same way in intergroup interactions.

Although numerous studies have examined the implications of Whites' levels of internal and external motivations to avoid prejudice on their responses in interracial contexts (e.g., Kunstman, Plant, Zielaskowski, & LaCrosse, 2013; Plant, Devine, & Peruche, 2010), until now research has not examined the implications of minorities' *perceptions* of Whites' internal and external motivations for interracial interactions. These are the first experiments to examine the association between minorities' suspicions about Whites' motives and their reactions to positive feedback directed toward themselves in intergroup interactions. Because the behavior of the interaction partner was held constant in the current studies, our findings illustrate the importance of chronic *perceptions* of others' motivations to respond without prejudice. Results suggest two intriguing but as yet untested possibilities. First, perceptions of motives may be just as important as actual motives in shaping intergroup interactions. Second, suspicion of Whites' motives for providing positive feedback may explain why minorities' perceptions of Whites' friendliness tend to rely more heavily on nonverbal than verbal cues (Dovidio, Kawakami, et al., 2002). The latter may be perceived as more controllable, and hence as more disingenuous.

The current research illustrates that chronically perceiving Whites' positive responses toward ethnic minorities as disingenuous – as motivated primarily by external concerns with appearing unprejudiced – is related to increased feelings of stress, uncertainty, and threat/avoidance among minorities when they receive positive evaluations under attributionally ambiguous circumstances. Our results are correlational and do not establish the causal effect of suspicion of motives. Nonetheless, our findings suggest that suspicion of motives may have negative implications for minorities in intergroup interactions. First, suspicion of Whites' motives has the potential to undermine the quality of intergroup encounters (Dovidio, Gaertner, et al., 2002) to the extent that suspicion predicts perceiving these encounters as more stressful and demanding. Second, suspicion of Whites' motives has the potential to undermine the positive effects of intergroup contact for minority-group members (Tropp & Pettigrew, 2005) to the extent that objectively positive behavior from Whites is seen as inauthentic and viewed with distrust. Under such conditions, positive contact is likely to be less efficient at fostering intergroup connections or facilitating high quality intergroup contact. Third, to the extent that minorities distrust the validity of praise as well as criticism from Whites, they may find it difficult to accurately judge their own performance and capabilities (Aronson & Inzlicht, 2004), potentially interfering with accurate goal-setting. Unfortunately, when praise and acceptance from White evaluators are genuine and deserved, suspicion related to the evaluator's concerns with not appearing racist may lead minorities to discount the praise and prevent them from internalizing deserved successes.

Fourth, chronic suspicion of Whites' motives may also be related to poorer health among minority group members. Attributional ambiguity and mistrust are threatening and undermine feelings of predictability and control, feelings that are essential for psychological well-being (Taylor & Brown, 1988). The current research suggests that minorities who regard positive feedback from Whites with suspicion and distrust are more likely to experience uncertainty and increased stress in ostensibly positive intergroup interactions. Furthermore, they show a less physiologically adaptive profile of cardiovascular reactivity than those who are less suspicious. Thus, the suspicion that Whites' positive behavior toward minorities is disingenuous may be linked to well-documented health disparities between majority and minority groups (Major, Mendes, et al., 2013).

9.2. Future directions & limitations

One limitation of the current experiments is small sample size, resulting in low statistical power. Consequences of low power include not only a reduced chance of detecting a true effect, but also a reduced likelihood that a statistically significant result reflects a true effect. While adequate power is unquestionably important, there are circumstances such as the current one where this is difficult to achieve, i.e., when recruiting samples of minority participants for multiple high impact studies using physiological measures. We believe that the clear need for this type of research, coupled with its difficulty of execution, offsets in part the potential limitations posed by a smaller sample size. Furthermore, the meta-analysis examining the strength and reliability of our predicted threat effect across the three studies reported here parsimoniously reinforces the point that when situational ambiguity is high, suspicion reliably predicts a medium-sized threat effect. Nonetheless, additional full-powered studies are needed to replicate and more fully investigate the many questions raised by the current work.

A second potential limitation of the current research is its exclusive focus on Latinas. We feel, however, that this focus is also a benefit, given the almost exclusive focus of most social psychological research on Black-White relations and the dearth of research on Latino-Americans. A future direction for research is to explore implications of suspicion of Whites' motives among other groups for whom strong anti-prejudice norms may make positive intergroup feedback

attributionally ambiguous. A third limitation of this research is its exclusive focus on female participants. We examined reactions to feedback in same-gender interactions among women exclusively for pragmatic reasons - to simplify our design and rule out other potential confounding attributions that might occur when positive feedback occurs in cross-gender interactions (e.g., romantic interest). Future research should examine whether the same processes apply among men and in cross-gender interactions.

Fourth, our studies examined minorities' responses to positive interpersonal evaluations from White peers that were based on brief interactions and limited information. Although this is apt to characterize many interracial interactions, we expect chronic suspicion to be less related to perception and behavior when positive evaluations are received from someone who has more individuating information about the target or occur within the context of a long-term interaction. We also theorize that chronic suspicion is most likely to be associated with negative reactions to positive feedback from Whites when the feedback seems excessive or undeserved, such as when an ethnic minority receives highly positive interpersonal feedback from a White peer who barely knows them or receives highly positive feedback despite mediocre performance (e.g., Major, Sawyer et al., 2013; Mendes et al., 2008). Such situations exacerbate attributional ambiguity about the motives behind a White evaluator's praise. More research is needed to examine the boundary conditions under which suspicion predicts minorities' responses to positive feedback from Whites.

Fifth, this research focused exclusively on one possible cause of attributional ambiguity surrounding positive feedback in intergroup interactions - the perception that nonprejudiced behavior is motivated by the evaluator's self-presentational goal of appearing nonprejudiced, rather than by his/her egalitarian goals. The items on the Suspicion of Motives Index were designed to assess perceptions of these two motives so as to mirror the widely used Motive to Avoid Prejudice Scale (Plant & Devine, 1998). There are other reasons why Whites might evaluate minorities' positively, including genuine admiration. In addition, there are other reasons why positive feedback might be attributionally ambiguous in interactions between members of stigmatized and nonstigmatized groups (see Major & Crocker, 1993). For example, members of stigmatized groups may be uncertain whether positive feedback reflects pity as opposed to genuine caring or liking. They also may be uncertain whether positive feedback reflects an evaluator's lower expectations for them because of their race or ethnicity (e.g., Lawrence, Crocker, & Blanton, 2011), or if they are being patronized (e.g., Major & Kunstman, 2013). These alternate reasons for attributional ambiguity could also undermine the significance of positive evaluations for self-esteem, and are worthy avenues for future research.

Finally, the current research measured people's suspicions about Whites' motives as an individual difference variable. This approach enabled us to identify minority individuals who are generally more or less likely to be suspicious of Whites' motives, and to examine how their pre-existing beliefs relate to their perceptions, affect, and physiology under controlled conditions. Some constructs, like prejudice expectations, can be both measured as a chronic individual difference (e.g., Mendoza-Denton et al., 2002), and situationally manipulated (e.g., Richeson & Shelton, 2007), with roughly similar effects. Other constructs, like self-esteem and group identification, often function quite differently when measured versus manipulated. It is an open question whether experimental manipulations designed to influence minorities' beliefs about Whites' motivations will produce findings similar to chronic beliefs. Pilot work in our lab thus far suggests that it is quite difficult to eliminate suspicion among those scoring high on the SOMI. An important direction for future research is to examine whether experimentally manipulating suspicions that Whites are more externally than internally motivated to avoid prejudice has effects on threat responses that mirror the findings observed here among more chronically suspicious individuals.

9.3. Concluding remarks

Strong anti-prejudice norms have greatly benefited interracial relations, but have also made positive feedback from Whites to members of racial and ethnic minority groups potentially attributionally ambiguous (Crocker & Major, 1989). The current research illustrates that when ethnic minorities believe that Whites' positive behavior is motivated more by external than internal reasons, they are more likely to regard highly positive evaluations from White peers as insincere and react with feelings of uncertainty, stress, lowered self-esteem, and a threat/avoidance cardiovascular pattern. This suggests the ironic possibility that strong norms prohibiting the expression of prejudice have the potential not only to improve interracial relations by mandating that others be treated with respect, but also to harm interracial relations by creating a suspicion that positive feedback is feigned, undermining perceived authenticity and trust.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <http://dx.doi.org/10.1016/j.jesp.2015.10.007>.

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