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The face of chauvinism: How prejudice expectations shape perceptions of facial affect ☆

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Abstract

Are individuals who chronically expect to be treated prejudicially biased toward perceiving rejecting emotions in the faces of out-group others? In two studies, participants watched a series of computer-generated movies showing animated faces morphing from expressions of rejection (i.e., contempt and anger) to acceptance, and indicated when the initial expression of rejection changed. We also assessed stigma consciousness. Study 1 tested the connection between gender-based stigma consciousness and perceptions of contempt in male vs. female faces among female participants. Study 2 examined this connection for both men and women and for perceptions of contempt as well as anger. Results show that prejudice expectations lead individuals to interpret out-group faces as more rejecting than in-group faces, but only for female perceivers, and not for males. Further, our results suggest that prejudice expectations affect perceptions of contempt, but not anger. These results are discussed in relation to intergroup relations and emotion.
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I had reached the habit of expecting color prejudice so universally, that I found it even when it was not there— DuBois (1944/1991, p. 113).

What are the effects of hearing that your group is just not good enough, day after day, year after year? How do you perceive the world, and those in it, after being hammered over the head with negative stereotypes about your group? As the quote by DuBois above indicates, one possi-

ble outcome is to start expecting prejudice universally, to anticipate being judged on the basis of your group and not by the content of your character. That is, one might develop a script for intergroup rejection, in which one worries about being socially devalued and becomes vigilant for cues communicating this rejection. And there may be no better place to look for these cues than the face.

The face is of central importance to social interaction and can be thought of as *the* medium of emotional expression (Ekman & Friesen, 1969; Izard, 1971). It is here that we look to see if we are being accepted or rejected, welcomed or turned away, and is usually the focus of our attention when interacting with others. People have the ability to read faces and decode non-verbal facial expressions, especially when the expressions are intense, unambiguous, and overt (Ekman, 2003). We get into more trouble, however, when the expressions are subtle and ambiguous. Understanding how members of stigmatized groups interpret ambiguous facial displays is the focus of the present research. We ask if individuals who chronically

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expect to be treated prejudicially show a bias in the perception of facial affect given off by out-group members.

Prejudice expectations

Targets of prejudice are aware of their group's stigmatized social identity, including the awareness that their group has lower status, compares unfavorably to other groups, and is negatively stereotyped (Crocker & Major, 1989; Frey & Tropp, 2006; Steele, Spencer, & Aronson, 2002; Vorauer, Main, & O'Connell, 1998). Many African Americans, for example, recognize that others hold negative beliefs about their group's academic ability and penchant for aggressive behavior (Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002). This awareness can lead to the expectation of being the target of prejudice and discrimination and to the formation of a script for prejudicial treatment. Borrowing from the relational schema literature (e.g., Baldwin, 1992), we define prejudice expectations as working models of intergroup interactions that function as cognitive maps to help people navigate their social worlds. Although a thorough discussion is beyond the scope of the current treatment, these cognitive structures are hypothesized to include images of self and other, along with a script for an expected pattern of rejection during intergroup interactions. Prejudice expectations lead people to become vigilant and on guard for evidence of personal discrimination, and can cause individuals to feel at risk for social devaluation, exclusion, and biased treatment (Major & O'Brien, 2005; Steele et al., 2002).

When operating with a prejudice expectation, people survey their surroundings to determine whether they are in a potentially threatening environment (Inzlicht & Ben-Zeev, 2000) and become sensitive to cues communicating that their group's stigmatized social status may be rejected (Kaiser, Vick, & Major, 2006). When people are uncertain of their standing and watchful for stigma-relevant cues, they may underperform on academic tasks (Steele & Aronson, 1995), attribute negative feedback to prejudice (Crocker, Voelkl, Testa, & Major, 1991; Major, Quinton, & McCoy, 2002), and react negatively during intergroup interactions (Pinel, 2002).

Individual differences

Importantly, people differ in the extent to which they hold prejudice expectations and these differences have important outcomes for intergroup behavior, such as intergroup emotions, institutional trust, cross-group friendships, and academic performance (Aronson & Inzlicht, 2004; Mendoza-Denton et al., 2002; Pinel, 2002; Shelton, Richeson, & Salvatore, 2005). Recent work suggests that individual differences in prejudice expectations, such as stigma consciousness or rejection sensitivity, can also activate a biologically based defensive motivation system that orients individuals towards negative stimuli in order to react to them appropriately (Lang, Bradley, & Cuthbert,

1990). Kaiser et al. (2006), for example, found evidence suggesting that women who were high in stigma consciousness paid more attention to subliminally presented social-identity threatening cues. This increased pre-conscious attention, however, was only responsive to social-identity threatening cues; general negative or neutral cues did not elicit the same response. Similarly, Downey and colleagues showed that individuals who were high in personal rejection-sensitivity reacted to rejection-relevant cues with an augmented startle eye-blink response—a marker of the activation of the defensive motivation system—suggesting that they pay close attention to rejection cues and readily perceive rejection in other people's behavior (Downey, Mougios, Ayduk, London, & Shoda, 2004). There is evidence then, that people who hold prejudice expectations pay extra close attention, perhaps even pre-conscious attention, to the cues that signal group-based rejection.

But can prejudice expectations affect visual perception? Can it, for example, affect the way a woman perceives a man's facial display of emotion? We predict that among a socially devalued group (women), prejudice expectations would be associated with a tendency to see rejecting emotions in the faces of out-group members (men) but not in-group members (women).

Emotions as revealed by the face

Although no research has explored this hypothesis directly, several research traditions support our line of reasoning. Since the *New Look* in psychology, researchers have repeatedly illustrated how psychological states, individual differences, and specific situations can shape perception. This was demonstrated most famously by Bruner and Goodman (1947) who showed that a child's values and needs could affect his or her estimates of the size of various coins. Recently, researchers have shown that the perception of faces and facial affect can also be affected by these states and traits. The emotions we feel, for example, can determine how long we see similar emotions last on someone else's face. Using a novel method, Niedenthal, Halberstadt, Margolin, and Innes-Ker (2000) had participants watch a short movie showing a person's face expressing a specific emotion (e.g., happiness) that gradually changed to a second emotion (e.g., sadness). Participants—who were induced to feel specific emotions—were asked to indicate when the initial expression dissipated. Results showed that emotion congruent expressions (e.g., perceiving happiness after being induced with happiness) were perceived to last longer than emotion incongruent expressions (e.g., perceiving sadness after being induced with happiness). This suggests that specific emotional states can enhance the perceptual processing of similar emotions in others.

Using the same methodology, Hugenberg and Bodenhausen (2003) showed that White participants who were high in implicit racial prejudice perceived anger displayed by a Black face to last longer than White participants who were low in implicit prejudice. This suggests that

highly prejudiced Whites are biased to perceive stereotypical affect in Black but not White faces. There is evidence, then, that states and traits can affect the perception of facial emotion. Is it thus possible that an individual difference such as stigma consciousness can bias the perception of emotional expression?

Contempt vs. anger

If prejudice expectations lead women to see rejection last longer on a man's face than a woman's, is this true for all rejecting emotions or specific to some? According to Ekman (2003), there are seven pan-cultural facial expressions: joy, anger, fear, sadness, surprise, contempt, and disgust. Of these, only expressions of contempt and anger signal interpersonal rejection, with expressions of disgust signaling aversive reactions to bodily products (Rozin, Haidt, & McCauley, 1999). Research now shows that people who worry about rejection—for example, people who suffer from social phobia—are particularly aware of and sensitive to faces expressing contempt and anger as opposed to faces expressing happiness (e.g., Stein, Goldin, Sareen, Eyler Zorilla, & Brown, 2002). Acute prejudice expectations may therefore make individuals uniquely sensitive to others' facial expressions of anger and contempt.

Of these two, we predict that women holding prejudice expectations will be sensitive to a man's expression of contempt, but not anger. Contempt is an interpersonal emotion that includes negative evaluations and feelings of superiority over another (Wagner, 2006). It is also a rejecting emotion directed towards people who can be treated as members of an out-group (Oatley & Jenkins, 1996). So when a chauvinist male professor, for example, provides a female student with feedback on her math homework, he may show expressions of disdain, indifference, and contempt; he may not value women and so may express this rejection with a scornful gaze. Anger, in contrast, is an emotion related to feeling wronged and approaching the "wrong-doer" with aggression and hostility (Harmon-Jones & Sigelman, 2001; Wagner, 2006). Ekman (2003) described anger best when he suggested that anger controls, punishes, and retaliates. "The face of attack, of violence", Ekman wrote, "is anger" (p. 110). Although a chauvinist male professor may not like women, we suspect that he would not react to a female student with violence and aggression. There are, after all, strong social sanctions against male on female anger and hostility (e.g., Sorenson & Taylor, 2005).

To the extent that male-on-female intergroup rejection is expressed more as contempt than as anger, women who hold prejudice expectations may be more sensitive to its expressions. In other words, to the extent that sexism is expressed as contempt, women holding acute prejudice expectations may be particularly vigilant for this emotion in faces of men and thus see it last longer on a man's face than on a woman's face. We predict that prejudice expecta-

tions will not, however, predict greater sensitivity to anger in the faces of men than women.

The present studies

Considering the model above, we believe that individuals who chronically expect to be treated prejudicially will show a bias in the perception of facial affect given off by out-group members. In both of our studies, we had participants who varied in stigma consciousness watch a series of computer-generated movies showing animated faces morphing from expressions of an unambiguous rejecting emotion (contempt, anger) to an expression of an unambiguous accepting emotion (happiness). Participants' main task was to indicate when the initial (rejecting) expression disappeared. The nature of the animated facial displays was such that there was a significant period in each movie in which the target's expression was ambiguous, somewhere between rejection and acceptance. In Study 1, we tested the connection between women's level of stigma consciousness and their perceptions of contempt in male and female faces. In Study 2, we examined this connection for both men and women and for perceptions of anger and contempt. We predicted that as women's stigma consciousness increased, so too would their tendency to interpret out-group faces as more contemptuous (but not more angry) than in-group faces. Because men are less likely to be stigmatized than women, we do not expect stigma consciousness to predict reactions to the expressions of contempt or anger given off by women.

Study 1

Methods

Generating stimulus faces

The facial expression videos created for this study were based upon procedures used by Niedenthal et al. (2000) and Hugenberg and Bodenhausen (2003). There were six stimulus videos altogether, each of which featured a European American face. Three of the videos featured female faces and three featured male faces. In all videos, the animated face slowly changed from contempt to happiness (the entire emotion transformation process lasted 15 s).

These videos were created using Poser 5™ three-dimensional character animation software, which allowed for precise control over each target's facial features and expression, thus permitting male and female targets faces to be matched precisely for both facial structure and expression. Other than the clear markers of gender (e.g., hair, lips, jaw, etc.), we minimized differences in facial structure of the male and female faces so that facial physiognomy could not influence the way the expression was displayed. This meant that we started with three base facial structures that were made into male and female targets (see Fig. 1). Each of the base facial structures displayed different initial contempt expressions and shifted to different happiness expres-

Fig. 1. Four frames of one contempt-to-happy movie with the male (top) and female (bottom) target faces. The figure shows gray-scale reproductions of the original color image.

sions. This was done to establish generality across the specific exemplars. All emotions were created based on Ekman's (2003) descriptions and photographs.

Participants and prescreening session

Participants were 40 female undergraduates (*M* age = 19.9 years, *SD* = 4.12 years) at a large US university who participated in exchange for partial research credit for a course. Participants were predominately European American (70.0%), with the remainder reporting African American (20%), Asian American (2.5%), and other (7.5%) ethnic/racial backgrounds.

In the days prior to the laboratory session, participants completed Pinel's (1999) 10-item Stigma Consciousness Questionnaire (worded with respect to gender) over the internet. Sample items include: "Stereotypes about women have not affected me personally" (reverse) and "Most men have a lot more sexist thoughts than they actually express." Endpoints were 0 (strongly disagree) and 6 (strongly agree) ($\alpha = .77$, *M* = 3.37, *SD* = 0.84). Higher scores indicate greater concern about being the target of gender-based stereotyping.

Laboratory session

At the laboratory session, small groups of participants were met by an experimenter who escorted them to a room equipped with PCs and 17-inch CRT monitors. The study was run with Media Lab and Direct RT software. The experimenter explained that the study concerned perceptions of facial emotion and emotion change. Participants learned that they would be viewing several videos of animated faces that would be changing from one emotion to another emotion and that their job was to press the space bar on the keyboard when the face shifted from its original emotion.

Before starting the emotion change task, participants saw still images of each animated face (displaying a neutral expression) and rated the extent to which the face was attractive and likable. These images were presented in a random order for each participant. All ratings were made on seven point scales ranging from −3 (indicating that the face was very low on each respective attribute) to 3 (indicating that the face was very high on each respective attribute). We included these ratings so that we could examine our stigma consciousness predictions, while also accounting for other potential variables that could influence our findings.

Before starting the critical emotion change task, participants watched one trial in which a practice face shifted from contempt to happiness. After this task familiarization trial, the actual task began. The six faces were presented in a randomized order for each participant and participants' reaction time to press the space bar (indicating perceived offset of contempt) was recorded. Finally, participants were carefully debriefed, encouraged to ask questions, and dismissed.

Results and discussion

As can be seen in Table 1, participants rated the female faces as more attractive, *t* (39) = 7.53, *p* < .01, *d* = 2.41 and

Table 1
Descriptive statistics for Study 1, with ratings of attractiveness and likeability for female and male faces

	Female targets	Male targets
Attractiveness		
M	.03[a]	−.87[b]
SD	.83	1.05
Likeability		
M	.34[a]	−.01[b]
SD	.85	1.05

Note: Means across rows with different superscripts differ significantly at *p* < .05 (two-tailed).

more likeable, $t(39) = 2.25$, $p < .05$, $d = .72$ than the male faces. This is to be expected, as women are perceived as more attractive and likeable than men (e.g., Eagly & Mladinic, 1989).

The primary dependent measure was the relative difference in time it took participants to detect the offset of contempt in male and female faces. Because the faces were created to change emotions at the midpoint of the movie (7500 ms), reaction time data from both studies were winsorized around this midpoint with a low end of 2500 ms and a high end of 12,500 ms. The results, however, remain unchanged with other cut-off values or other data treatment procedures. To create the difference variable, we subtracted the aggregate contempt offset reaction time for female faces ($\alpha = .86$) from the aggregate contempt offset reaction time for male faces ($\alpha = .83$). Scores above zero indicate that participants saw male contempt expressions last longer than female contempt expressions, whereas scores below zero indicate the reverse pattern.

Overall, participants showed no difference in perceptions of the length of the contempt expression on male and female faces ($M = 88.44$, $SD = 1572.21$)—the relative contempt offset score for female and male faces did not differ from zero, $t(39) = .36$, $p > .70$. However, consistent with predictions, women's stigma consciousness scores were positively associated with this relative contempt offset score, $r(40) = .38$, $p < .05$. That is, more stigma conscious women saw contempt last longer on male faces than on female faces. To rule out the possibility that differences in perceived attractiveness or likeability between male and female faces could account for these effects, this correlation was repeated while controlling for each of these variables in turn. Results were unchanged (both r's > .40).

Although these findings were consistent with predictions, we conducted a second study to both replicate this effect and examine some boundary conditions. First, in Study 2, we examined both male and female participants. We expected to replicate Study 1; such that the higher women are in stigma consciousness, the longer they see contempt last on male than female faces. In contrast, because males are not chronically stigmatized and so should not be sensitized to gender-based rejection coming from women, we did not predict a similar pattern of effects for men. That is, we predicted that stigma consciousness would not predict the differential perception of contempt expressed by men and women. Second, we examined the perceived offset of anger, in addition to contempt. We expect stigma consciousness (in women) to be related to perceptions of contempt, but not to anger. Because male-on-female intergroup rejection may be expressed as contempt, women who are highly conscious of sexism may become more sensitized to its expression. Anger, in contrast, may not be considered appropriate ways for men—even sexist men—to express their rejection of women (e.g., Sorenson & Taylor, 2005). Thus, stigma conscious women should not be sensitive to anger displays.

Study 2

Methods

Participants

Participants were 37 female and 32 male undergraduates (M age = 19.04 years, $SD = 1.50$ years) at a large Canadian university who participated in exchange for partial research credit for a course. Participants came from diverse ethnic and racial backgrounds, with 37% self-reporting as South Asian Canadian (i.e., Indian, Sri-Lankan, Pakistani, etc.), 25% as East Asian Canadian (i.e., Chinese, Korean, Vietnamese, etc.), 18% as White/Caucasian, 9% as Black Canadian, and 11% as other ethic/racial background.

In the weeks prior to the laboratory session, participants completed Pinel's (1999) Stigma Consciousness Questionnaire over the internet during a mass-testing session. As expected, females ($\alpha = .75$, $M = 3.98$, $SD = .85$) were higher in stigma consciousness than males ($\alpha = .66$, $M = 3.60$, $SD = .96$), but only marginally so, $t(67) = 1.77$, $p = .082$, $d = .43$. During the lab session, groups of three to four participants were met by an experimenter who escorted them to a room equipped with PCs running MedialLab and DirectRT software and 15-inch CRT monitors. The study was in most respects identical to Study 1: participants provided ratings of attractiveness and likeability for each of the faces, and then watched the series of movies and indicated when the initial emotion changed. The only difference from Study 1 was that participants viewed six face videos showing the offset of contempt and six face videos showing the offset of anger. As in Study 1, we created the anger videos using Poser 5™ three-dimensional character animation software and based the expressions on Ekman's (2003) work. We started with the same three base facial structures we used for the contempt videos, had them display different initial anger expressions that changed to different happiness expressions, and then made them into male and female targets. As in Study 1, half of these videos depicted men and half depicted women. All videos were presented in a random order for each participant.

Results and discussion

Ratings of the target faces replicated results from Study 1 (see Table 2). Both male and female participants rated the female faces as more attractive, both $ts > 4.24$, $ps < .001$, $ds > 1.55$, and likeable, both $ts > 2.01$, $ps < .053$, $ds > .73$, than the male faces. This replicates our earlier results and confirms research showing an attractiveness bias favoring females (e.g., Eagly & Mladinic, 1989).

The primary dependent measures were the relative difference in time to detect contempt and anger offset in male vs. female faces. As was the case in Study 1, these differential emotion offset scores were created by subtracting the aggregate score for female faces on each emotion ($\alpha = .87$ for contempt, $\alpha = .78$ for anger) from the aggregate score

Table 2
Descriptive statistics for Study 2, with ratings of attractiveness, and likeability for female and male faces

	Female participants		Male participants	
	Female targets	Male targets	Female targets	Male targets
Attractiveness				
M	−.24[a]	−1.06[b]	−.33[a]	−1.20[b]
SD	1.00	1.04	1.11	1.03
Likeability				
M	.28[a]	−.59[b]	.01[a]	−.38[b]
SD	.94	.99	1.01	1.01

Note: Means across rows, within participant sex, with different superscripts differ significantly at $p < .053$ (two-tailed) or less.

for male faces on the respective emotion ($\alpha = .80$ for contempt, $\alpha = .86$ for anger). This resulted in two emotion differential scores—one for contempt and one for anger. Scores above zero indicate that participants saw contempt or anger last longer on male than female faces, whereas scores below zero indicate the reverse pattern. Overall, participants showed differences in the ways they perceived anger on males and females. Participants saw anger last longer on male faces than female faces ($M = 385.69$, $SD = 849.10$), $t(68) = 3.77$, $p < .001$, $d = .91$. Although, overall, participants tended to see contempt last longer on females than males ($M = −226.53$, $SD = 1160.13$), this relative contempt offset score did not differ significantly from zero, $t(68) = −1.62$, $p > .10$, $d = .39$. The sex difference in anger, although unexpected, is consistent with research relating anger and hostility with males (e.g., Buntaine & Costenbader, 1997).

Our main questions centered on the role of stigma consciousness in women's perception of rejecting emotions in male vs. female faces. We predicted that stigma consciousness would predict differential male/female perceptions of contempt for female participants, but not for male participants. In contrast, we predicted that women's level of stigma consciousness would not predict differential perceptions of anger. Our results confirm these predictions.

We analyzed our data using multiple regression analyses, with differential emotion offset scores regressed onto sex of participant (effect coded), stigma consciousness (centered), and the interaction between stigma consciousness and sex of participant. Fig. 2a shows the results for contempt offset scores, which resulted in a main effect for stigma consciousness, $\beta = .31$, $t(64) = 2.64$, $p < .02$,[1] $d = .66$, which was subsumed under a marginal two-way sex by stigma consciousness interaction, $\beta = −.22$, $t(64) = −1.87$, $p = .067$, $d = .47$. Using procedures outlined by Aiken and West (1991), this interaction was examined using simple slope analyses. These analyses revealed that

for female participants, stigma consciousness was positively related to contempt offset scores, $\beta = .53$, $t(64) = 3.10$, $p < .01$, $d = .78$. That is, women who were high in stigma consciousness saw contempt last longer on male faces than on female faces compared to women who were low in stigma consciousness. Males, in contrast, did not show a relationship between their level of gender-related stigma consciousness and perceptions of contempt, $\beta = .09$, $t(64) < 1$, ns, $d = .14$. As with Study 1, when we repeated the above analyses with attractiveness or likeability scores as covariates, the results stay unchanged (both simple effects for females, $\beta s > .53$, $ts(64) > 3.08$, $ps < .01$, $ds > .77$), thus effectively ruling out the possibility that these differences between male and female faces account for the effects.

Fig. 2b shows the same set of analyses, this time for anger offset scores. As predicted, stigma consciousness did not predict different perceptions of anger offset for male vs. female faces for either male or female participants. We did not find any main effects or interactions, all $\beta s < .15$, $ts(64) < 1.19$, ns, $ds < .29$.

These findings supported three predictions. First, replicating Study 1, female participants who were high in gender-based stigma consciousness saw contempt last longer on a man's face than on a woman's face compared to women who were low in stigma consciousness. This suggests that an individual difference related to group-based rejection can predispose individuals to become vigilant for the rejecting emotions routinely expressed by out-group members. Second, in contrast to the effects with contempt, stigma consciousness did not predict perceptions of anger. This is consistent with societal interdictions against male-on-female expressions of anger and hostility, and our hypothesis that gender-based rejection is more likely to be expressed as contempt than anger. Finally, males did not show evidence for the same pattern of emotional sensitivity. That is, males who were concerned about being the target of gender-based stereotyping did not tend to perceive men's and women's faces differently from men who were not similarly concerned. This is consistent with our suggestion that men are less likely to experience stigmatization and hence are less vigilant for women's gender-based rejection of them.

General discussion

Drawing upon theoretical perspectives on stigma and emotion perception, we hypothesized that stigmatized individuals who hold prejudice expectations would be especially sensitive to out-group rejection, and that this sensitivity would manifest itself in the perceptual evaluation of out-group members' emotional expressions. Across both studies, women who were high in stigma consciousness—those who chronically held prejudice expectations—saw contempt last longer on a man's face than on a woman's face, compared to women who were low in stigma consciousness. These data are the first, to our

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[1] As suggested by Neter, Kutner, Nachtsheim, and Wasserman (1996), one case—a male participant—was excluded from this analysis because his absolute difference between fits (DFFITS) was large. This analysis indicates that the outlying case is influential in the regression equation and its exclusion causes major changes to the fitted model.
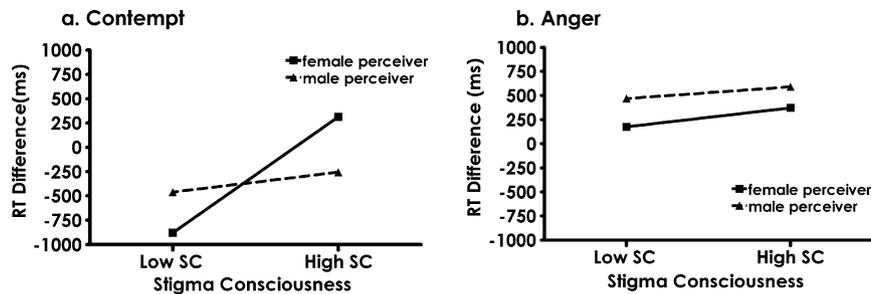
Fig. 2. Relative emotion offset reaction times (ms) as a function of sex of participant and level of stigma consciousness for contempt (a) and anger (b). Positive scores denote the relevant emotion is perceived to last longer on the male face than the female face.

knowledge, to demonstrate that prejudice expectations can shape basic perceptual processes, such as emotion recognition.

Further, our research demonstrates that prejudice expectations have different consequences for members of chronically stigmatized groups and members of non-stigmatized groups. Among men, gender-based stigma consciousness did not predict sensitivity to perceiving social rejection-related emotions on women's faces. As men have little experience facing gender-based stigmatization, few processes would contribute to a connection between their consciousness of anti-male sexism and sensitivity to detecting contempt and anger on women's faces. This is also consistent with theories of power and attention that argue that powerful groups are often unmotivated to pay attention to the behavior of the less powerful (Fiske, 1993). Our research also demonstrates that members of stigmatized groups who are high in stigma consciousness are sensitive only to emotions that are central to prejudice expectations, rather than all types of rejecting emotions. That is, compared to low stigma conscious women, high stigma conscious women saw contempt—but not anger—last longer on men's faces. As there are strong social sanctions against expressing anger toward women, this makes sense.

Limitations and future directions

We note, however, that even with these social sanctions, violence against women is still remarkably prevalent (Felipe Russo & Pirlott, 2006). Why, then, did we not find a relationship between stigma consciousness and anger? One possibility is that male-on-female anger is only expressed in certain situations, where women are seen as "over-stepping their bounds" (Glick & Fiske, 2001; Jackman, 1994). For example, a woman who is perceived to be the beneficiary of affirmative action may engender hostility from men, especially when she is seen as intruding upon a traditionally male occupation. Similarly, women in leadership positions are often the recipients of envious prejudice, which can result in being targeted by anger and hostility, especially from their male subordinates (Cuddy, Fiske, & Glick, 2007; Eagly & Karau, 2002). Thus, there certainly are some situations where we would expect women who endorse prejudice expectations to expect men to react

angrily to them. Future research should test the boundary conditions of our effect and explore when anger is indeed perceived in a biased manner.

It is also important to note that our specific pattern of results may not generalize to other groups. Although sexist men may react to women with expressions of contempt and scorn, the emotions associated with other intergroup interactions may be different. For example, because many Whites hold cognitive associations linking African Americans with hostility and aggression, prejudiced Whites may react to African Americans with expressions of fear and alarm. If this is the case, then African Americans who are high in race-based rejection sensitivity might see fear last longer on White faces compared to African American faces. Along similar lines, contempt and anger may not be the appropriate emotions when investigating men's expectations of women's prejudice. Rather, because men are stereotyped as aggressors and harassers (Buntaine & Costenbader, 1997), to the extent that they hold prejudice expectations, they may be more vigilant for fear in women's faces, instead of contempt or anger. Future research is needed to explore this biased perception effect with different groups and different emotions.

There is growing evidence that people who hold acute prejudice expectations often experience poor outcomes: they view the world with mistrust, suffer from less self-control, form fewer intergroup friendships, have an unclear sense of self, and sustain poorer academic outcomes (Aronson & Inzlicht, 2004; Inzlicht, McKay, & Aronson, 2006; Mendoza-Denton et al., 2002; Pinel, 2002). One unsettling implication of the current work is that prejudice expectations may set in motion a chain of events that lead to these very poor outcomes. Being weary of "blaming the victim," it is possible that some of these problems may be the product of expectancy confirmation (Word, Zanna, & Cooper, 1974), whereby stigmatized individuals expect mistreatment and interpret ambiguous interactions through the lens of this expectation. That is, they may perceive rejection on the face of the dominant group, act in accordance to this perception, and actually engender the exact type of behavior they expect. Indeed, some research is beginning to find evidence in support of this possibility (Crocker, Garcia, & Nuer, 2006; Pinel, 2002).

However, it is important to consider that there also are benefits to holding prejudice expectations. For example, sometimes members of stigmatized groups who expect to face prejudice exert more effort during intergroup interactions (Miller, Rothblum, Felicio, & Brand, 1995; Shelton et al., 2005) and engage in more proactive coping (Kaiser & Miller, 2001). Prejudice expectations can also have intrapersonal benefits. For example, members of stigmatized groups who have prejudice expectations are not surprised by prejudice when they actually encounter it, and suffer less emotionally compared to those who believe prejudice is rare (Major, Kaiser, O'Brien, & McCoy, 2007; Sellers & Shelton, 2003). Also, people who do not endorse prejudice expectations might fail to detect prejudice when it actually occurs, and this could have adverse consequences for well-being if they end up blaming themselves for negative outcomes that are actually due to prejudice (Major, Kaiser, & McCoy, 2003). Finally, failing to detect prejudice when it is actually occurring will prevent individuals and groups from engaging in actions aimed at restoring social justice (Crosby, 1984).

We focused here on individual differences in prejudice expectations. Although these beliefs play an important role in the experience of stigma (e.g., Mendoza-Denton et al., 2002), situations may activate prejudice expectations as well. For example, situations including expecting to interact with a prejudiced out-group member (Kaiser et al., 2006), being the only member of one's group in a stereotyped environment (Inzlicht & Ben-Zeev, 2000), and being exposed to subtle cues that threaten the integrity of one's social group (Davies, Spencer, Quinn, & Gerhardstein, 2002; Steele & Aronson, 1995) all induce prejudice expectations. It is possible, then, that cues such as these may have similar consequences for intergroup emotion perception.

Conclusion

Being confronted daily with messages that your group is just not good enough, just not smart enough, just not strong enough, etc., can result in the expectation of encountering widespread prejudice. Like DuBois, an individual who experiences chronic stigmatization may develop prejudice expectations about being rejected or stereotyped. The current research suggests that these prejudice expectations can actually shape the way stigmatized individuals see faces—it biases them to see rejecting emotions more readily and fluently. Across both of our studies, women who chronically anticipated being the target of gender stereotypes saw contempt last longer on a man's face relative to a woman's face, compared to women who did not chronically expect to face gender stereotypes. These data provide insight into how exposure to prejudice shapes the way members of stigmatized groups construe and perceive their social environment and suggests that even the earliest perception of faces can be moulded by expectations.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park: Sage Publications.

Aronson, J., & Inzlicht, M. (2004). The ups and downs of attributional ambiguity: Stereotype vulnerability and the academic self-knowledge of African-American students. *Psychological Science, 15*, 829–836.

Baldwin, M. W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin, 112*, 461–484.

Bruner, J. S., & Goodman, C. C. (1947). Values and need as organizing factors in perception. *Journal of Abnormal and Social Psychology, 42*, 33–44.

Buntaine, R. L., & Costenbader, V. K. (1997). Self-reported differences in the experience and expression of anger between girls and boys. *Sex Roles, 36*, 625–637.

Crocker, J., Garcia, J. A., & Nuer, N. (2006). Egosystem and ecosystem goals in intergroup interactions. In T. Vescio (Chair), *The role of expectancy confirmation in the creation, maintenance, and correction of social problems*. Paper presented at the 6th Biennial SPSSI Convention, Long Beach, CA.

Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96*, 608–630.

Crocker, J., Voelkl, K., Testa, M., & Major, B. (1991). Social stigma: The affective consequences of attributional ambiguity. *Journal of Personality and Social Psychology, 60*, 218–228.

Crosby, F. (1984). The denial of personal discrimination. *American Behavioral Scientist, 27*, 371–386.

Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2007). The BIAS map: Behaviors from intergroup affect and stereotypes. *Journal of Personality and Social Psychology, 92*, 631–648.

Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerhardstein, R. (2002). Consuming images: How television commercials that elicit stereotype threat can restrain women academically and professionally. *Personality and Social Psychology Bulletin, 28*, 1615–1628.

Downey, G., Mougios, V., Ayduk, O., London, B. E., & Shoda, Y. (2004). Rejection sensitivity and the defensive motivational system: Insights from the startle response to rejection cues. *Psychological Science, 15*, 668–673.

DuBois, W. E. B. (1944/1991). What the Negro wants. In H. L. Gates, Jr. (Ed.), *Bearing witness: Selections from African-American autobiography in the twentieth century* (pp. 103–114). New York: Pantheon Books.

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109*, 573–598.

Eagly, A. H., & Mladinic, A. (1989). Gender stereotypes and attitudes toward women and men. *Personality and Social Psychology Bulletin, 15*, 543–558.

Ekman, P. (2003). *Emotions revealed*. New York: Henry Holt and Company.

Ekman, P., & Friesen, W. V. (1969). The repertoire of nonverbal behaviour: Categories, origins, usage, and coding. *Semiotica, 1*, 49–98.

Felipe Russo, N., & Pirlott, A. (2006). Gender-based violence: Concepts, methods, and findings. *Annals of the New York Academy of Sciences, 1087*, 178–205.

Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist, 48*, 621–628.

Frey, F. E., & Tropp, L. R. (2006). Being seen as individuals versus as group members: Extending research on metaperception to intergroup context. *Personality and Social Psychology Review, 10*, 265–280.

Glick, P., & Fiske, S. T. (2001). An ambivalent alliance: Hostile and benevolent sexism as complementary justifications of gender inequality. *American Psychologist, 56*(2), 109–118.

Harmon-Jones, E., & Sigelman, J. (2001). State anger and prefrontal brain activity: Evidence that insult-related relative left-prefrontal activation is associated with experienced anger and aggression. *Journal of Personality and Social Psychology, 80*, 797–803.

Hugenberg, K., & Bodenhausen, G. V. (2003). Facing prejudice: Implicit prejudice and the perception of facial threat. *Psychological Science, 14*, 640–643.

Inzlicht, M., & Ben-Zeev, T. (2000). A threatening intellectual environment: Why females are susceptible to experiencing problem-solving deficits in the presence of males. *Psychological Science, 11*, 365–371.

Inzlicht, M., McKay, L., & Aronson, J. (2006). Stigma as ego-depletion: How being the target of prejudice affects self-control. *Psychological Science, 17*, 262–269.

Izard, C. E. (1971). *The face of emotion*. New York: Appleton Century Crofts.

Jackman, M. R. (1994). *The velvet glove: Paternalism and conflict in gender, class, and race relations*. University of California Press.

Kaiser, C. R., & Miller, C. T. (2001). Reacting to impending discrimination: Compensation for prejudice and attributions to discrimination. *Personality and Social Psychology Bulletin, 27*, 1357–1367.

Kaiser, C. R., Vick, S. B., & Major, B. (2006). Prejudice expectations moderate preconscious attention to cues that are threatening to social identity. *Psychological Science, 17*, 332–338.

Lang, P. J., Bradley, M. M., & Cuthbert, B. N. (1990). Emotion, attention, and the startle reflex. *Psychological Review, 97*, 377–395.

Major, B., Kaiser, C. R., O'Brien, L. T., & McCoy, S. K. (2007). Perceived discrimination as worldview threat or worldview confirmation: Implications for self-esteem. *Journal of Personality and Social Psychology, 92*, 1068–1086.

Major, B., Kaiser, C. R., & McCoy, S. K. (2003). It's not my fault: When and why attributions to prejudice protect self-esteem. *Personality and Social Psychology Bulletin, 29*, 772–781.

Major, B. N., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology, 56*, 393–421.

Major, B., Quinton, W. J., & McCoy, S. K. (2002). Antecedents and consequences of attributions to discrimination: Theoretical and empirical advances. In M. Zanna (Ed.). *Advances in experimental social psychology* (Vol. 34, pp. 251–330). San Diego: Academic Press.

Mendoza-Denton, R., Downey, G., Purdie, V. J., Davis, A., & Pietrzak, J. (2002). Sensitivity to status-based rejection: Implications for African American students' college experience. *Journal of Personality and Social Psychology, 83*, 896–918.

Miller, C. T., Rothblum, E. D., Felicio, D., & Brand, P. (1995). Compensating for stigma: Obese and nonobese women's reactions to being visible. *Personality and Social Psychology Bulletin, 21*, 1093–1106.

Neter, J., Kutner, M. H., Nachtsheim, C. J., & Wasserman, W. (1996). *Applied linear regression models* (3rd ed.). Chicago: Irwin Book Team.

Niedenthal, P. M., Halberstadt, J. B., Margolin, J., & Innes-Ker, A. H. (2000). Emotional state and the detection of change in facial expression of emotion. *European Journal of Social Psychology, 20*, 211–222.

Oatley, K., & Jenkins, J. M. (1996). *Understanding emotions*. Cambridge, MA: Blackwell.

Pinel, E. C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology, 76*, 114–128.

Pinel, E. C. (2002). Stigma consciousness in intergroup contexts: The power of conviction. *Journal of Experimental Social Psychology, 38*, 178–185.

Rozin, P., Haidt, J., & McCauley, C. R. (1999). Disgust: The body and soul of emotion. In T. Dalgish & M. J. Power (Eds.), *Handbook of cognition and emotion*. Chichester, UK: John Wiley & Sons.

Sellers, R. M., & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology, 84*, 1079–1092.

Shelton, J. N., Richeson, J. A., & Salvatore, J. (2005). Expecting to be the target of prejudice: Implications for interethnic interactions. *Personality and Social Psychology Bulletin, 31*, 1189–1202.

Sorenson, S. B., & Taylor, C. A. (2005). Female aggression toward male intimate partners: An examination of social norms in a community-based sample. *Psychology of Women Quarterly, 29*, 78–96.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69*, 797–811.

Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with images of one's group: The psychology of stereotype and social identity threat. In M. Zanna (Ed.). *Advances in experimental social psychology* (Vol. 34, pp. 379–440). San Diego, CA: Academic Press.

Stein, M. B., Goldin, P. R., Sareen, J., Eyler Zorilla, L. T., & Brown, G. G. (2002). Increased amygdale activation to angry and contemptuous faces in generalized social phobia. *Archives of General Psychiatry, 59*, 1027–1034.

Vorauer, J. D., Main, K. J., & O'Connell, G. B. (1998). How do individuals expect to be viewed by members of lower status groups? Content and implications of meta-stereotypes. *Journal of Personality and Social Psychology, 75*, 917–937.

Wagner, H. L. (2006). *How does the experience of contempt differ from anger and disgust?* Unpublished manuscript: University of Central Lancashire.

Word, C. O., Zanna, M. P., & Cooper, J. (1974). The nonverbal mediation of self-fulfilling prophecies in interracial interaction. *Journal of Experimental Social Psychology, 10*, 109–120.