
Expectations About the Future and the Emotional Consequences of Perceiving Prejudice

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Three studies tested the hypothesis that possessing a pessimistic outlook on life moderates the effects of perceiving sexism on emotions and self-esteem. Across all studies, a pessimistic outlook on life (either dispositionally held or experimentally induced) served as a source of emotional vulnerability among women (Studies 1-3) and men (Study 1) faced with evidence of sexism directed against their gender group. Study 3 demonstrated that one's outlook on life influences emotional adjustment to prejudice through the cognitive appraisal process. Relative to optimists, pessimists appraised sexism as more stressful and believed they possessed fewer resources for coping with it. This research emphasizes the importance of examining sources of vulnerability and resilience in understanding emotional responses to prejudice.

Keywords: *pessimism; sexism; prejudice; cognitive appraisal; self-esteem*

What are the emotional consequences of perceiving oneself or one's group as a target of prejudice and discrimination? Members of socially stigmatized groups, such as women, ethnic minorities, gay men and lesbians, and people with heavy body weights possess devalued social identities that make them particularly vulnerable to being the target of prejudice and discrimination (Crocker, Major, & Steele, 1998). Because psychological well-being is at least partly dependent on inclusion (Leary, 1990) and the perception that one is valued by others (Pyszczynski, Greenberg, & Solomon, 1997), many scholars assume that repeated exposure to prejudice and discrimination directed against oneself or one's group will inevitably result in negative psychological con-

sequences for the target (e.g., Allport, 1954/1979; Cartwright, 1950). For example, Cartwright (1950) argued, "To a considerable extent, personal feelings of worth depend on the social evaluation of the group with which a person is identified. Self-hatred and feelings of worthlessness tend to arise from membership in underprivileged or outcast groups" (p. 440).

There is little doubt but that the stigmatized are harmed in multiple ways by the blatant and subtle prejudice and discrimination that they endure (see Major, Quinton, & McCoy, 2002). Perceiving oneself or one's group as a victim of discrimination is negatively related to self-esteem and emotional well-being among various stigmatized groups, including women, immigrants, gay men, and ethnic minorities (see Major et al., 2002, for a review). Correlational findings such as these appear to confirm Cartwright's observation that feelings of worth-

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lessness tend to arise from membership in a stigmatized group.

Other findings, however, argue against Cartwright's observation. For instance, there is not a one-to-one relationship between membership in a stigmatized group and emotional outcomes such as low self-esteem (Crocker & Major, 1989; Twenge & Crocker, 2002). Members of some groups that are chronic targets of ethnic prejudice and discrimination (e.g., African Americans) have higher self-esteem on average compared to nonstigmatized ethnic groups (e.g., European Americans) (Twenge & Crocker, 2002), whereas members of other devalued ethnic groups (e.g., Latino Americans) report lower self-esteem on average compared to more valued and privileged ethnic groups (Twenge & Crocker, 2002). Furthermore, within stigmatized groups, some individuals have high self-esteem, whereas others do not (Friedman & Brownell, 1995). In addition, the same individual may show different emotional responses to prejudice as the context changes (Steele & Aronson, 1995). Findings such as these illustrate that not all members of stigmatized groups will respond the same way when faced with prejudice and discrimination.

We believe that conceptualizing responses to prejudice and discrimination within a stress and coping framework helps to understand this variability (e.g., Clark, Anderson, Clark, & Williams, 1999; Major et al., 2002; Miller & Kaiser, 2001; Miller & Major, 2000). A stressor is an event in which internal or external demands are appraised as taxing or exceeding the adaptive resources of the individual (Lazarus & Folkman, 1984). An underlying premise of theories of stress and coping is that exposure to potentially stressful events does not necessarily lead to reduced well-being. How individuals respond emotionally to these events is a function of how they cognitively appraise the act or event and the coping strategies they use to deal with events that are appraised as stressful (Lazarus, 1999; Lazarus & Folkman, 1984). Each of these processes is affected by the coping resources individuals have at their disposal.

Cognitive appraisals are of two types. In primary appraisal, a person assesses whether an event has the potential to inflict harm. In other words, is the event personally relevant and potentially threatening? In secondary appraisal, the individual considers his or her coping resources to determine if they are sufficient to deal with the event. Primary and secondary appraisals are interdependent and "should each be regarded as parts of a common process" (Lazarus, 1999, p. 78). The cognitive appraisal process imbues meaning on potentially stressful events and determines one's path of action (or inaction) for dealing with the events.

Cognitive appraisals are determined to a significant extent by the resources that people have to draw on in the face of stressful life events (Lazarus, 1999; Major, Richards, Cooper, Cozzarelli, & Zubek, 1998; Scheier, Carver, & Bridges, 2001). Examples of resources include individual difference variables such as optimism, locus of control, and expertise, as well as situational variables such as social support or adequate finances. People vary widely in their access to beneficial resources, and situations also differ in the extent to which they make resources available. Resources become particularly valuable to individuals when they face threatening or challenging situations (Lazarus, 1999; Taylor, 1989). In stressful situations, people who do not possess adequate levels of resources are without an important reserve to draw on for the purpose of coping. Compared to individuals with a solid reserve of resources, those who do not possess adequate levels of resources are likely to fare emotionally worse in the face of stressful events (Major et al., 1998; Taylor, 1989).

In the current studies, we focus on expectations about the future as a potential moderator of the emotional consequences of perceiving one's group as a target of prejudice. Expectations about the future can range from optimistic to pessimistic. Optimistic expectations involve the belief that positive outcomes will be plentiful in the future and negative outcomes rare (Scheier & Carver, 1992). People with an optimistic outlook on life remain hopeful about the future even when faced with stressful situations. In contrast, people with a more pessimistic outlook expect the future to be negative (Scheier & Carver, 1992). Pessimism is negatively associated with psychological adjustment to diverse types of stressful life events including cancer, HIV, caregiving, abortion, and the transition to college (see Scheier et al., 2001, for a review). Pessimism is theorized to affect adjustment through its impact on cognitive appraisals. People with a pessimistic outlook on life tend to appraise stressful events as more harmful and taxing than people with an optimistic outlook on life. Their more threatening appraisals, in turn, are associated with greater psychological vulnerability (Major et al., 1998).

We believe that examining sources of vulnerability and resilience, such as pessimism and optimism, can help make sense of variability in targets' emotional responses to prejudice and discrimination. Relative to optimists, members of stigmatized groups who have a pessimistic outlook on life may appraise prejudice directed against themselves or their group as more threatening and feel less able to cope with prejudice. Pessimists also may be less likely than optimists to employ adaptive coping strategies for dealing with prejudice, such as cognitive restructuring or problem solving, and

more likely to employ potentially maladaptive strategies, such as denying blatant evidence of discrimination (Aspinwall & Brunhart, 1996; Major et al., 1998; Scheier, Carver, & Bridges, 1994). In short, the manner in which pessimists and optimists construe and cope with prejudice may result in different emotional outcomes when they encounter prejudice directed against themselves or their group.

OVERVIEW OF STUDY 1 AND HYPOTHESES

In our first study, men and women, all of whom had previously completed a measure of dispositional expectations about the future, were randomly assigned to read an article describing the existence of pervasive prejudice against their own gender group or one of two control articles. One control article described pervasive prejudice against a group to which the participants did not belong (the elderly); the other was a neutral article, unrelated to prejudice. Self-esteem and depressed emotions were subsequently assessed. This design allowed us to address a number of important theoretical and methodological issues.

First, by experimentally manipulating perceived prejudice against the ingroup, we could examine whether perceiving prejudice causes decreased emotional well-being. Although it is frequently assumed that perceiving prejudice against one's ingroup is detrimental to the personal self-esteem of members of stigmatized groups, this conclusion is based primarily on cross-sectional, correlational studies (e.g., Branscombe, Schmitt, & Harvey, 1999; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002). These studies are not informative about causality. It is possible, for example, that self-esteem or depression influences the extent to which people perceive themselves as victims of prejudice or that third variables may account for the observed relationships (e.g., Mendoza-Denton, Purdie, Downey, Davis, & Pietrzak, 2002). Thus, it is important to examine the impact of perceived prejudice on self-esteem and depressed emotions experimentally.

Second, virtually all prior research examining the relationship between perceived prejudice and emotional well-being focused on the direct relationship between prejudice and well-being. According to our stress and coping perspective, however, resource possession should moderate emotional responses to perceived prejudice. Accordingly, we hypothesized that when faced with evidence of prejudice against their group, individuals with pessimistic expectations about the future would be emotionally harmed, whereas individuals with optimistic expectations about the future would be emotionally buffered. Among individuals in the control groups, who were not faced with a personally stress-

ful event, we expected expectations about the future to be less related to emotional well-being.

Third, we examined the effects of perceiving prejudice against the ingroup on emotional well-being among men (a high-status group) as well as among women (a low-status group). Some researchers propose that perceiving prejudice is not detrimental to the self-esteem of members of high-status groups because their experiences with prejudice are more controllable, unstable, and rare, thus less psychologically costly, compared to the experiences with prejudice faced by members of low-status groups (e.g., Crosby, 1984; Schmitt & Branscombe, 2002). Indeed, prior correlational studies have shown a negative relationship between perceived prejudice and psychological well-being among members of low-status but not high-status groups (e.g., Schmitt et al., 2002). These different relationships, however, might be an artifact of status differences in actual experiences with discrimination (e.g., differences in frequency, severity, pervasiveness of exposure) rather than status differences in the psychological costs of perceiving discrimination. If past experiences with discrimination, rather than psychological costs of perceiving discrimination, account for past findings of status differences in responses to perceived discrimination, we would anticipate that expectations about the future would moderate the effects of perceiving prejudice on well-being similarly among men and women. That is, when faced with evidence of sexism directed against their gender, men as well as women with negative expectations about the future would be emotionally harmed relative to men and women with positive expectations.

Method

RESEARCH DESIGN, PARTICIPANTS, AND PRETEST

The experimental design was a 2 (participant sex: male or female) \times 3 (target of prejudice: prejudice against ingroup, prejudice against elderly, neutral) between-participants design with trait expectations about the future as a third continuous variable. Participants were 49 men and 64 women (M age = 18.43 years, SD = 0.72) who volunteered to participate in this study in exchange for partial fulfillment of an introductory psychology research requirement. Participants were predominately European American (85.3%), with the remainder reporting Asian American (6.4%), Latino American (0.9%), or other (7.3%) racial/ethnic backgrounds.

All participants had completed the Revised Life Orientation Test (LOT-R) (Scheier et al., 1994) during a mass-testing session conducted during the 1st week of their introductory psychology course. The six-item LOT-R is a reliable and valid measure of dispositional future

expectations. Sample items include the following: "In uncertain times, I usually expect the best" and "If something can go wrong for me it will" (reverse scored). Higher scores indicate a more optimistic outlook on life and lower scores indicate a more pessimistic outlook on life. Participants rated their agreement with these items on 7-point scales with endpoints of 0 (*strongly disagree*) and 6 (*strongly agree*) ($\alpha = .85$ in the present sample).

LABORATORY SESSION

Participants reported to the laboratory in small groups. They were met by a European American female experimenter who told them that the study concerned students' reactions to newspaper articles, for example, how persuasive they are and the types of impressions they create on people. The experimenter explained that participants would read a randomly assigned newspaper article and then complete surveys assessing their reactions.

Perceived prejudice manipulation. Participants were randomly assigned to read one of three articles (all of which were approximately 200 words in length): an article describing the prevalence of prejudice and discrimination directed against their own gender group (the sexism condition) or one of two control articles. Women in the sexism condition read that sexism against women was pervasive and that most men disrespected women. For example, they read that women were underpaid relative to men and underrepresented in high-status jobs and that most men held stereotypical beliefs and attitudes (e.g., women are irrational and incompetent, women should stay home and raise children). Men in the sexism condition read that men faced pervasive sexism and that most women disrespected their gender group. The examples of prejudice faced by men were modified to reflect men's experiences. For example, men read that boys were more likely to be placed in special education classes relative to girls and consequently received compromised educational training and that most women endorsed sexist stereotypes and held anti-male attitudes (e.g., men are unhelpful and uncaring, men should never be granted full custody of or be allowed to adopt children).

The remaining two thirds of the participants read one of two control articles. One group read a neutral article about scientific efforts to prevent a tortoise species from becoming extinct. This article did not mention prejudice at all (neutral condition). The other control group read an article describing the prevalence and pervasiveness of prejudice against the elderly (ageism condition). The article stated, among other things, that the elderly are discriminated against in hiring and promotion decisions, that most people believe the elderly are selfish and stubborn, and that they should have their driver's

licenses revoked. This condition was included to control for the introduction of information about prejudice and discrimination. Because the target group is the elderly, a group to which participants did not currently belong, prejudice-related information was not expected to be personally threatening to participants.

After reading their respective article, participants completed several filler items aimed at assessing their reactions to the article (e.g., how well-written did you find it to be?) as well as the dependent measures. Participants were then thanked and thoroughly debriefed. Careful attention was paid to ensure that participants were aware that the information in the sexism and ageism articles was fabricated for the study.

DEPENDENT MEASURES

Manipulation check. To ensure that participants in the sexism condition, on average, believed that sexism was more pervasive than did participants in the ageism and neutral conditions, we asked them to respond to the following item: "My gender group faces a good deal of sexism." Participants rated their agreement on a scale with endpoints of 0 (*strongly disagree*) and 6 (*strongly agree*).

Emotional well-being. Participants completed measures of depressed emotions and self-esteem, both phrased with respect to their feelings at the present moment. The depressed emotion measure included six items assessing the extent to which participants reported feeling depressed, sad, discouraged, disappointed in myself, like a failure, and like blaming myself for things ($\alpha = .88$). Personal self-esteem was assessed with the Rosenberg Self-Esteem Scale (RSE) (Rosenberg, 1979), a 10-item measure that assesses global feelings of self-worth (e.g., "I have a positive attitude toward myself"; $\alpha = .90$). The endpoints for the depressed emotion measure were 0 (*not at all*) and 4 (*extremely*) and the endpoints for the RSE were 0 (*not at all*) and 6 (*very much*).

Results

MANIPULATION CHECK

To examine the effectiveness of the perceived prejudice manipulation, we computed a hierarchical regression analysis predicting ratings of the extent to which one's gender group faces discrimination from the main effects of experimental condition, participant sex, and expectations about the future (centered at the mean) and their interactions. Because there were three levels of the experimental condition, it was necessary to represent this variable with two dummy-coded variables in the analysis (one that represents the sexism vs. ageism condition comparison and another that represents the sexism vs. neutral condition comparison). The sexism condition was always dummy coded as 0 and served as the referent condition and each respective control condition

was coded as 1. Participant sex was dummy coded with men as 0 and women as 1. The main effects were entered on Step 1, all two-way interactions were entered on Step 2, and the three-way interaction terms were entered on the third step of the analysis.

As predicted, there was a main effect for experimental condition such that participants in the sexism condition were more likely than those in the ageism control condition ($\beta = -.23, p < .01$) and neutral control condition ($\beta = -.18, p < .05$) to report that members of their gender group faced a great deal of sexism ($R^2 = .37, p < .01$). There was also a main effect for sex ($\beta = .57, p < .01$), with women more so than men reporting that their gender group faces a great deal of discrimination. In addition, scores on the LOT were negatively related to perceived discrimination ($\beta = -.18, p < .03$). Of importance, neither Step 2 ($R^2 = .05, p > .17$) nor Step 3 ($R^2 = .03, p > .08$) of this analysis accounted for a significant increase in the variance of the manipulation check. Thus, the manipulation was successful in establishing different levels of perceived prejudice in the sexism condition relative to both control conditions for both men and women, regardless of their dispositional expectations about the future.

ANALYSIS PLAN

We also used hierarchical regression analyses to test our predictions regarding expectations about the future as a moderator of the relationship between experimental condition and depressed emotions and self-esteem. Because the manipulation check demonstrated that the manipulation of perceived prejudice was effective in the sexism condition relative to both control conditions and because initial analyses on the dependent variables involving all three experimental conditions revealed that these two control groups operated statistically identically in all analyses, we collapsed across these two control conditions in all analyses presented below. None of the conclusions drawn in this experiment would change if each control group were analyzed individually. Thus, in these analyses, we entered the main effects for experimental condition (0 = sexism, 1 = control), expectations about the future, and participant sex (0 = men, 1 = women) on Step 1. On Step 2, we entered the two-way interactions (Expectations About the Future \times Experimental Condition, Expectations About the Future \times Participant Sex, and Experimental Condition \times Participant Sex). On Step 3, we entered the three-way interaction between expectations about the future, experimental condition, and participant sex.

EXPECTATIONS ABOUT THE FUTURE AND WELL-BEING

Relationships among measures. Participants' scores on the LOT were, on average, slightly above the scale midpoint ($M = 3.38, SD = 1.13$). The self-esteem and depressed emotion measures were negatively related to

TABLE 1: Model Summary of Hierarchical Regression Analysis Testing Optimism as a Moderator of the Relationship Between Perceived Prejudice and Depressed Emotions

Variable	B	SE B	β	ΔR^2
Step 1				.11*
Optimism	-.23	.06	-.33**	
Experimental condition	.00	.15	-.03	
Sex	.13	.14	.09	
Step 2				.09**
Optimism \times Experimental Condition	.39	.14	.49**	
Optimism \times Participant Sex	.00	.12	.01	
Experimental Condition \times Sex	.48	.29	.30	
Step 3				.02
Optimism \times Experimental Condition \times Sex	-.44	.28	-.37	

NOTE: Regression coefficients are reported from the step on which each variable was first entered.

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

each other ($r = -.66, p < .01$). Participants with more pessimistic LOT scores reported lower levels of self-esteem ($r = .57, p < .01$) and more depressed emotions ($r = -.32, p < .01$) overall. These relationships are consistent with the idea that pessimistic expectations are a general source of emotional vulnerability (Scheier & Carver, 1985). We hypothesized, however, that expectations about the future are particularly relevant when individuals are faced with prejudice-related stress.

Depressed emotions. As can be seen in Table 1, Step 1 of the analysis of depressed emotions revealed a significant main effect of expectations about the future ($\beta = -.33, p < .01; R^2 = .11, p < .01$), such that pessimism was associated with more depressed emotions overall. The experimental condition main effect was not significant ($\beta = -.03, p = .75$), indicating that exposure to sexism did not increase depressed emotions overall compared to the control conditions. In addition, participant sex was not related to depression ($\beta = .09, p = .35$).

The fit of the model significantly improved with the addition of the two-way interactions in Step 2. The Predicted Expectations About the Future \times Experimental Condition interaction was significant ($\beta = .49, p < .01; \Delta R^2 = .09, p < .01$), indicating that the relationship between expectations about the future and depressed emotions was different in the sexism condition compared to the control condition. Analysis of the simple slopes comprising this interaction revealed that low scores on the LOT (indicating pessimism) were associated with more depressed emotions in the sexism condition ($\beta = -.59, p < .01$) but were unrelated to depressed emotions in the control conditions ($\beta = -.19, p = .12$). As can be seen in Figure 1, pessimistic expectations about the future were a source of emotional vulnerability when participants were faced with sexism but not when they were faced with a nonpersonally threatening issue. None

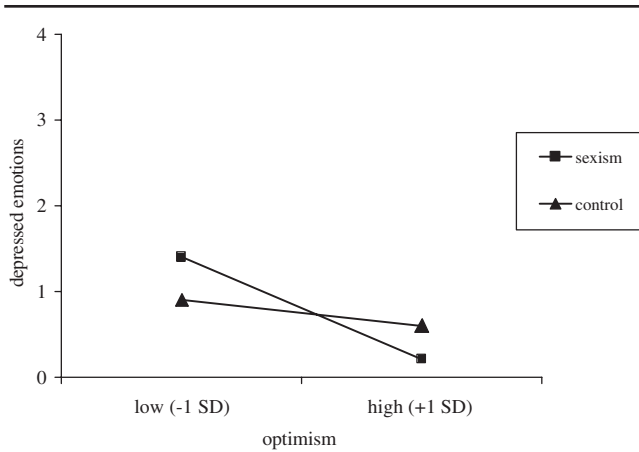


Figure 1 The relationship between optimism (plotted at 1 standard deviation above and below the mean) and perceived prejudice on depressed emotions.

of the other interaction terms in Step 2 were significant ($ps > .09$).

In Step 3, the addition of the three-way interaction between expectations about the future, experimental condition, and sex did not improve the model's fit ($\Delta R^2 = .02, p = .12$). Thus, as expected, the moderating effect of expectations about the future on emotional adjustment in response to perceived prejudice did not differ for women and men.

Self-esteem. We performed the same hierarchical regression analysis on self-esteem. As can be seen in Table 2, Step 1 revealed only a significant effect of expectations about the future ($\beta = .60, p < .01; R^2 = .35, p < .01$); a more pessimistic outlook was associated with lower self-esteem overall. The experimental condition main effect was not significant ($\beta = .11, p = .17$), indicating that overall, exposure to prejudice against the ingroup did not lower personal self-esteem. Participant sex was unrelated to self-esteem ($\beta = -.09, p = .23$).

The fit of the model significantly improved with the addition of the two-way interactions in Step 2 ($\Delta R^2 = .09, p < .01$). Of importance, the Predicted Expectations About the Future \times Experimental Condition interaction was significant ($\beta = -.51, p < .01$), indicating that the relationship between pessimism and self-esteem was different in the sexism condition compared to the control condition. Analysis of the simple slopes comprising the interaction revealed that pessimism was associated with lower self-esteem in both the sexism ($\beta = .80, p < .01$) and control conditions ($\beta = .49, p < .01$) but that the slope was significantly stronger in the sexism condition relative to the control condition (see Figure 2). In other words, negative expectations about the future served as a source of emotional vulnerability in both conditions but were particularly important when participants were faced

TABLE 2: Model Summary of Hierarchical Regression Analysis Testing Optimism as a Moderator of the Relationship Between Perceived Prejudice and Self-Esteem

Variable	B	SE B	β	ΔR^2
Step 1				
Optimism	.56	.07	.60**	.35**
Experimental condition	.24	.17	.11	
Sex	-.20	.17	-.09	
Step 2				
Optimism \times Experimental Condition	-.55	.16	-.51**	.09**
Optimism \times Sex	.23	.14	.17	
Experimental Condition \times Sex	-.37	.33	-.17	
Step 3				
Optimism \times Experimental Condition \times Sex	.30	.32	.19	.01

NOTE: Standardized regression coefficients are reported from the step on which each variable was first entered. ** $p < .01$.

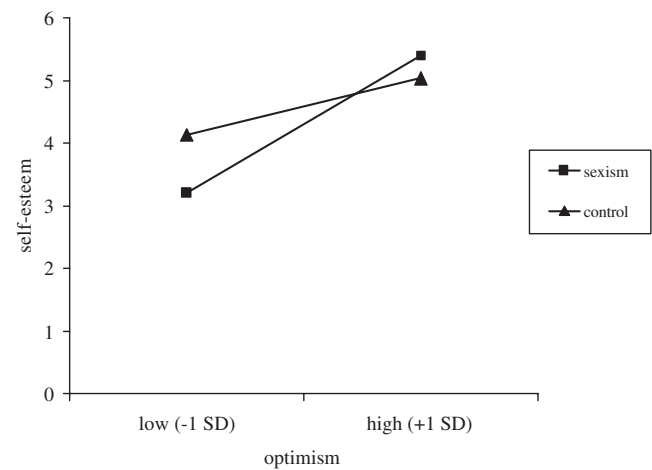


Figure 2 The relationship between optimism (plotted at 1 standard deviation above and below the mean) and perceived prejudice on self-esteem.

with the personally relevant threat of sexism. None of the other two-way interactions were significant on this step ($ps > .10$).

In Step 3, the addition of the three-way interaction between expectations about the future, experimental condition, and sex did not improve the model fit ($\Delta R^2 = .01, p = .35$). Thus, expectations about the future moderated the effects of perceived prejudice on personal self-esteem for men and women.

Discussion

Study 1 tested several hypotheses about the effects of perceiving prejudice against one's group on depression and personal self-esteem. Consistent with our stress and coping perspective, expectations about the future moderated the consequences of seeing one's gender group

as a target of prejudice. Overall, exposure to sexism did not have a uniformly negative effect on men's or women's emotional well-being. Exposure to sexism led to more depressed emotions and lower self-esteem among pessimistic individuals but not among optimistic individuals. Specifically, among individuals who read about pervasive sexism directed against their gender group, a pessimistic outlook on life was associated with more depressed emotions and lower self-esteem. Among participants who were not faced with sexism (i.e., who read about prejudice against the elderly or a neutral article), expectations about the future were unrelated to depressed emotions and more weakly (but still significantly) positively related to self-esteem. These patterns did not differ for men and women.

Although results of Study 1 were consistent with our hypotheses about the role of personal resources in emotional responses to prejudice, the use of an individual difference measure of optimism/pessimism limits conclusions that can be drawn from this study. Accordingly, we conducted a second experiment to determine whether an experimental manipulation of expectations about the future also would moderate the relationship between perceiving prejudice and emotional outcomes. In Study 2, participants, all of whom were women, were randomly assigned to a self-relevant pessimism or non-self-relevant pessimism condition.¹ We then randomly assigned them to read an article describing the existence of pervasive prejudice against women or to read a control article describing the existence of pervasive prejudice against a group to which they did not belong (people from the Canary Islands). We hypothesized that among individuals assigned to read about prejudice against their own group, those assigned to adopt a pessimistic outlook about the self would experience more depressed emotions and lower self-esteem compared to those assigned to adopt a non-self-relevant pessimistic outlook. In contrast, we did not expect the self-relevant pessimistic outlook versus non-self-relevant pessimistic outlook manipulation to affect depressed emotion and self-esteem among individuals assigned to read about prejudice against a group to which they did not belong.

STUDY 2

Research Design and Participants

The experimental design was a 2 (expectations about the future: self-relevant pessimistic or non-self-relevant pessimistic) \times 2 (target of prejudice: prejudice against women or prejudice against Canary Islanders) between-participants design. Participants were 37 women (M age = 18.94 years, SD = 1.15) who volunteered to participate in this study in exchange for partial fulfillment of an introductory psychology research requirement. Partici-

pants were predominately European American (56.8%), with the remainder reporting Asian American (21.6%), Latin American (8.1%), African American (2.7%), and other (10.8%) ethnic backgrounds.

LABORATORY SESSION

Participants reported to the laboratory in small groups where they were met by a European American female experimenter. Participants were instructed to complete a short writing task and then evaluate a newspaper article.

Expectations about the future manipulation. We manipulated participants' expectations about the future with a brief writing task. Half of the participants were assigned to write about five significant negative events that could happen to them in the future (in the self-relevant pessimistic condition) and the other half were assigned to write about five significant negative events that could happen to their favorite television character in the future (in the non-self-relevant pessimistic condition). This procedure controlled for the introduction of negative thoughts by having participants in both conditions generate negative life events. However, these events were personally relevant only to participants in the former condition.

Perceived prejudice manipulation. One half of the participants read an article arguing that prejudice against women is pervasive. This article described an ostensible survey conducted by the "California Research Consortium." Participants learned that the survey, which examined 5,000 present University of California (UC) students and 5,000 recent UC alumni, revealed that women faced pervasive prejudice while in college (e.g., female students were 8 times more likely than male students to report hearing sexist assumptions made about their personal and academic interests, to be the target of sexist remarks, and to be treated disrespectfully because of their gender) and after college (e.g., the female UC alumni earned 25% less than the male alumni). Finally, to increase the intensity of the manipulation, participants read that 90% of the female UC alumni reported that while in college they did not recognize the extent to which sexism would cause personal and professional barriers for them.

The remaining participants were assigned to read about prejudice against a group to which they did not belong. The content and wording of the article they read was identical to the ingroup prejudice condition article except that the target of prejudice was an unknown group (Canary Islanders) and their outcomes were compared to ethnic majority group members from Spain. We used the Canary Islands, a Spanish territory North of Africa, as our control group because it represents a real group with which our participants were likely unfamiliar.

After reading their respective article, participants completed the dependent measures and were then thanked and thoroughly debriefed.

DEPENDENT MEASURES

Manipulation check. As a check on the perceived sexism manipulation, participants indicated their agreement with the following statement: "I will likely be the target of sexism in the next year." Endpoints were 0 (*strongly disagree*) and 6 (*strongly agree*).

Emotional well-being. We administered the same depressed emotion measure employed in Study 1 ($\alpha = .85$). Endpoints were 0 (*strongly disagree*) and 6 (*strongly agree*). We assessed self-esteem with Heatherton and Polivy's (1991) State Social Self-Esteem Scale, which contains instructions directing participants to report their feelings at the present moment. We used this measure of self-esteem instead of the trait self-esteem measure employed in Study 1 because it is designed to be particularly sensitive to experimental manipulations. Sample items from this seven-item scale include the following: I feel displeased with myself (reverse), I am worried about what other people think of me (reverse), and I feel inferior to others at this moment (reverse) ($\alpha = .89$). The endpoints were 0 (*not at all*) and 6 (*very much*). The depressed emotion and self-esteem scales were negatively correlated with each other ($r = -.62, p < .01$). Because of the strong correlation between these variables, they were averaged (depressed mood was reverse scored) in all analyses presented below. The results reported below would not change if the analyses were conducted separately on depressed emotions and self-esteem.

Results

MANIPULATION CHECK

We conducted a 2 (expectations about the future: self-relevant pessimistic or non-self-relevant pessimistic) \times 2 (target of prejudice: women or Canary Islanders) ANOVA on the extent to which participants anticipated facing sexism in the next year. Our manipulation was successful. Participants who read about prejudice against women anticipated facing relatively more sexism in coming year ($M = 4.0, SD = 1.19$) than did those who read about prejudice against Canary Islanders ($M = 3.0, SD = 1.80$), $F(1, 33) = 3.76, p = .06$. Neither the future outlook manipulation nor the interaction of this variable with the target of prejudice manipulation significantly influenced scores on the manipulation check, $F_s < 1.14, p_s > .29$.

EMOTIONAL WELL-BEING

We predicted that participants primed to think self-relevant pessimistic thoughts would report lower emo-

tional well-being than participants primed to think non-self-relevant pessimistic thoughts when they read about prejudice against their own group but not when they read about prejudice against a group to which they did not belong. Because the omnibus ANOVA is relatively insensitive to the predicted pattern of means (Rosenthal & Rosnow, 1985), we employed a priori planned contrasts to test our hypotheses.² We conducted two planned contrasts. Our first planned contrast compared emotional responses of participants in the self-relevant pessimistic outlook condition who read about prejudice against women to those in the non-self-relevant pessimistic outlook condition who read about prejudice against women. As predicted, among participants who read about prejudice against women, those in the self-relevant pessimistic outlook condition ($M = 3.09, SD = 1.50$) reported lower levels of emotional well-being than those in the non-self-relevant pessimistic condition ($M = 4.32, SD = 0.71$), $F(1, 33) = 5.03, p < .03$. Our second planned contrast compared responses of participants in the self-relevant pessimism and non-self-relevant pessimism conditions who read about prejudice against Canary Islanders. Among participants in this condition, those primed with a self-relevant pessimistic outlook ($M = 4.39, SD = 0.46$) did not report different levels of emotional well-being than those primed with a non-self-relevant outlook ($M = 4.17, SD = 1.52$).

Discussion

Study 2 demonstrated that experimentally inducing self-relevant pessimistic thoughts produced a pattern of results similar to that found in Study 1 where expectations about the future were assessed as an individual difference variable. As predicted, perceiving sexism resulted in lowered emotional well-being among women assigned to adopt a pessimistic outlook about the self compared to those assigned to adopt a pessimistic outlook about another person. However, among women assigned to read about prejudice against a group to which they did not belong, the pessimism manipulation did not affect emotional well-being. In other words, exposure to sexism did not reduce well-being overall unless one was primed with self-relevant negative thoughts.

Although Studies 1 and 2 provide support for our stress and coping perspective, they do not address why an optimistic or pessimistic outlook on life affects emotional reactions to perceived prejudice. Study 3 addressed this question. We hypothesized that pessimistic expectations about one's future reduce well-being through their impact on the cognitive appraisal process. Specifically, we predicted that compared to optimists, pessimists are more likely to appraise prejudice as personally threatening and are less likely to feel they have

the resources to cope with it. We predicted that these more negative cognitive appraisals, in turn, result in lower emotional well-being among pessimists than optimists when they are exposed to stressors, such as prejudice against their own group.

STUDY 3

Research Design, Participants, and Pretest

Women with either a pessimistic or optimistic outlook on life were exposed to information about prejudice against their own gender group. Participants were 27 European American women (M age = 18.11 years, SD = 0.32) who volunteered to participate in exchange for partial fulfillment of an introductory psychology research requirement.

During a mass-testing session conducted during the 1st week of their introductory psychology course, 309 European American women completed the revised LOT (Scheier et al., 1994) (M = 3.86, SD = 1.10). From this group, we recruited women whose LOT scores were at least 1 standard deviation above this mean (in the optimistic condition) or 1 standard deviation below this mean (in the pessimistic condition) (see Aspinwall, Richter, & Hoffman, 2001, for this classification approach). Research assistants who recruited these women (via telephone) were unaware of their scores on the LOT. The optimists (M = 5.52, SD = 0.31) and pessimists (M = 2.31, SD = 0.52) in the present sample differed significantly on the LOT, $t(25) = -19.86$, $p < .001$, $LOT \alpha = .95$.

LABORATORY SESSION

Participants reported to the laboratory in mixed-gender groups (the men were involved in a separate study, but their presence created the impression that both men and women were recruited for the experiment) where they were met by a European American female experimenter. All participants read the sexism newspaper article described in Study 2. After reading the article, participants completed the dependent measures and were then thanked and thoroughly debriefed.

DEPENDENT MEASURES

Cognitive appraisals. Cognitive appraisals of sexism were assessed with eight items. Four items assessed primary appraisals of sexism as personally threatening: sexism will have a negative impact on my future, sexism will have harmful or bad consequences for me, sexism will affect many areas of my life, sexism will have a severe impact on my life ($\alpha = .93$). Four additional items assessed secondary appraisals of perceived resources to cope with sexism: I am prepared to deal with sexism, I have the resources I need to handle problems posed by sexism, I will do the best I can to deal with sexism, and I

am able to rise up and meet the demands posed by sexism ($\alpha = .86$). Endpoints were 0 (*strongly disagree*) and 6 (*strongly agree*).

Based on Lazarus and Folkman's (1984) conceptualization of the stress appraisal process, we computed a single cognitive stress appraisal score for each participant by subtracting her score on the secondary appraisal scale from her score on the primary appraisal scale. The higher the score, the more a participant appraised the personal threat of sexism as stressful, that is, as exceeding her resources and ability to cope with it. This way of representing the cognitive appraisal process has been successfully used in other stress and coping research (e.g., Major et al., 1998; Tomaka, Blascovich, Kelsey, & Leitten, 1993).

Emotional well-being. Participants completed Heather-ton and Polivy's (1991) State Social Self-Esteem Scale ($\alpha = .89$) as well as a four-item depressed mood measure ($\alpha = .74$). The latter was a shortened version of the mood items used in the first two studies with the addition of two reverse-scored items (feeling discouraged, like a failure, proud [reversed], and secure [reversed]). Each item was rated on a 0 (*strongly disagree*) to 6 (*strongly agree*) scale. Because state self-esteem and depressed emotions were strongly negatively correlated, $r = -.69$, $p < .01$, we averaged these two scales (reverse scoring the depressed mood scale) into a composite measure of emotional well-being. All analyses reported below are based on this measure. The results are identical if each dependent variable is analyzed separately.

Results and Discussion

We followed mediational procedures specified by Baron and Kenney (1986) to test our hypothesis that pessimists' more threatening cognitive appraisals of sexism, relative to optimists' appraisals, account for the former's more negative emotional responses to sexism.

Our first regression analysis examined whether optimism/pessimism, dummy coded as 0 (pessimistic) and 1 (optimistic), was a significant predictor of women's emotional well-being following exposure to sexism. Optimists reported higher levels of emotional well-being than pessimists overall ($\beta = .51$, $R^2 = .26$), $F(1, 25) = 8.95$, $p < .01$. Our second regression analysis examined whether optimism/pessimism was a significant predictor of cognitive stress appraisals. Consistent with predictions, pessimists appraised sexism as significantly more stressful than did optimists ($\beta = -.44$, $R^2 = .19$), $F(1, 25) = 5.97$, $p < .03$. The third step in testing for mediation involved simultaneously entering optimism/pessimism and cognitive stress appraisals into a regression analysis predicting emotional well-being. The overall simultaneous regression was significant ($R^2 = .47$), $F(2, 24) = 7.97$, $p < .01$. As predicted, cognitive stress appraisals

were a significant and negative predictor of emotional well-being ($\beta = -.51, p < .01$). Furthermore, when cognitive stress appraisals were entered into the model, the direct relationship between optimism/pessimism and emotional well-being was no longer significant ($\beta = .29, p = .09$). A Goodman II test indicated the drop in the beta for the optimism/pessimism variable was significant ($p = .05$). Thus, cognitive stress appraisals mediated the relationship between optimism/pessimism and emotional well-being among women exposed to sexism.

GENERAL DISCUSSION

According to our stress and coping model of adjustment to prejudice, the emotional consequences of perceiving prejudice depend on the coping resources individuals have at their disposal as well as the cognitive meaning they impart to perceived prejudice. Across three studies, individuals with a pessimistic outlook on life experienced more depressed emotions and lower personal self-esteem when faced with evidence of sexism against their own gender as compared to more neutral information, whereas individuals with a more optimistic outlook on life did not. Furthermore, Study 3 demonstrated that cognitive appraisals mediate the relationship between expectations about the future and emotional outcomes; that is, relative to optimists, pessimists appraised prejudice as more threatening and believed they had fewer resources to cope with it, and these appraisals were in turn negatively related to emotional well-being. These findings advance our understanding of how prejudice affects its targets and suggest that adopting a stress and coping perspective can contribute to research and theory on how targets of prejudice respond emotionally to their predicament (e.g., Clark et al., 1999; Major et al., 2002; Miller & Kaiser, 2001; Miller & Major, 2000).

One strength of the current investigation was our experimental manipulation of perceived prejudice. This manipulation can help address the problems posed by drawing conclusions about the effects of perceived prejudice on emotional well-being from correlational research. Although past research has shown that perceiving prejudice is negatively associated with emotional well-being (at least among members of chronically stigmatized groups) (e.g., Branscombe et al., 1999; Schmitt et al., 2002), perceived prejudice has been almost exclusively measured rather than manipulated. Although there are strengths of employing correlational methodologies, important drawbacks include the lack of control over the nature of perceived prejudice evoked in the research setting, the uncertain direction of the relationship between prejudice and emotions, and the possibility that a third variable is responsible for the relationship between perceiving prejudice and emotions. The exper-

imental methodology used in the present studies overcomes the interpretational limitations of prior correlational research and places this study in a unique and methodologically stronger position to draw causal conclusions about the effects of perceiving prejudice on emotions and self-esteem.

Findings of the present studies suggest that Cartwright's (1950) assertion that "personal feelings of worth depend on the social evaluation of the group with which a person is identified" (p. 440) is correct for some individuals but is not correct for others. In the present studies, individuals with a pessimistic outlook on life and those who were induced to think pessimistically about the self experienced negative emotions when they read that others were prejudiced against their group. This was not true, however, for optimistic individuals. Contrary to Cartwright's observation, optimistic individuals did not experience negative emotions as a result of learning that others are prejudiced against their group. Our findings suggest that understanding emotional adjustment to perceived prejudice is not as straightforward as some scholars have suggested and emphasize the importance of identifying sources of resilience and vulnerability to prejudice.

It is important to point out that optimists in the present studies did not report better emotional well-being simply because they screened out or denied the information about prejudice in the sexism article. In Study 1, optimists did not decrease their perception of prejudice (assessed by the manipulation check item) when faced with sexism compared to control information. In other words, optimists were willing to see prejudice when they were faced with it. This is consistent with health psychology research showing that optimists do not deny or suppress personally relevant threatening information. Rather, optimists tend to allocate their attentional resources to personally relevant health threats presumably with the intention of initiating the appraisal and coping processes (Aspinwall & Brunhart, 1996). Indeed, research has shown that relative to pessimists, optimists use more engagement coping strategies (e.g., problem solving and cognitive restructuring) and less disengagement coping strategies (e.g., avoidance and wishful thinking) (Major et al., 1998; Scheier et al., 1994).

In our first experiment, men and women responded in similar ways in terms of emotions and self-esteem after reading about prejudice against their gender group. This finding is inconsistent with theoretical perspectives positing that the emotional consequences of perceived prejudice will be more negative for members of low-than high-status groups (e.g., Branscombe et al., 1999; Schmitt et al., 2002). However, because men and women read different articles about sexism, it is possible that something specific to these articles contributed to the

lack of gender differences. For example, the information about sexism against men may have been more unexpected or surprising than the information about sexism against women, and this may have resulted in particularly strong emotional reactions among men. It will be important to conduct further work examining how members of high- and low-status groups respond to perceived prejudice.

One limitation of our research was our focus on a single personal resource (expectations about the future). We chose this variable as a starting point because it is among the most powerful psychological predictors of adjustment to stressful life events (Scheier et al., 2001), making it a strong candidate to test our variability perspective. We recognize that other personal resources, such as perceived control, group identification, ideological endorsement, and social support also might moderate the relationship between perceived prejudice and emotional well-being. Future investigations examining these resources should shed insight into the diversity of resources that influence emotional responses to prejudice.

In addition, we restricted our inquiry to how personal resources of the target influence emotional reactions to prejudice. Future research should examine the impact of situational resources, such as environments that foster hope about the elimination of gender discrimination or that provide high levels of social support. We believe that situations vary in the extent to which they provide targets of prejudice with resources for dealing with prejudice. For example, a woman who has a solid network of feminist-minded colleagues or who works in an environment with strong egalitarian norms about sexism may experience less distress when she perceives prejudice in the workplace relative to a woman without a supportive network or who does not work at a company that is open to addressing and eliminating sexism. Furthermore, we believe that strong situations can overshadow individual difference variables. For example, even optimistic individuals may experience negative emotions in highly prejudicial and personally threatening environments. Thus, just as not all people will respond the same way when faced with prejudice, a single individual will not respond to prejudice in the same way in all situations. In short, we suggest that a person by situation approach will be important in fully understanding the nature of the relationship between perceived prejudice and well-being.

One also could argue that manipulating perceived prejudice through an article manipulation is not a particularly powerful strategy for inducing perceptions of prejudice. Although there are certainly more impactful ways to manipulate perceived prejudice (such as exposing participants to confederates who express blatant sexist attitudes toward them), the present strategy is consis-

tent with other perceived prejudice inductions used in research generating important findings about prejudice and emotional well-being (e.g., Jetten et al., 2001; Quinn & Crocker, 1999). In future research it will be important to examine the effects of personal resources on emotional adjustment to perceived prejudice in designs employing stronger manipulations of perceived prejudice. Based on the large body of health psychology research demonstrating that optimism is associated with positive adjustment to very threatening forms of stress (Scheier et al., 2001), we would expect to replicate the stress-buffering relationship observed in the present study.

Finally, we would like to make clear that we are not contending that experiencing prejudice is not harmful to its targets or that perceiving oneself as a target of pervasive prejudice is a benign experience (see Major et al., 2002, for a discussion). Our argument is that perceived prejudice is stressful and has negative implications for self-esteem for some individuals in some situations and not for other individuals in other situations. Understanding how individuals react to prejudice will require examining how they appraise prejudice-related stressors; the coping strategies they use to deal with events that are appraised as stressful; and the personal, situational, and structural factors that affect appraisal and coping processes. We believe that future research identifying sources of vulnerability and resilience to prejudice will help shed insight into the issue of for whom and under what circumstances perceived prejudice influences emotional well-being.

NOTES

1. Because the women in Study 1 were relatively optimistic (their average optimism score was above the scale midpoint; $M = 3.54$, $SD = 1.01$), we believed it would be difficult to increase optimism with an experimental manipulation among a sample that already scored dispositionally high on this trait. Accordingly, we focused our attention on manipulating pessimism because there was more potential for movement at this end of the continuum. Furthermore, because men and women displayed similar emotional reactions to prejudice in Study 1, we focused solely on women, the group that is more likely to face sexism in their lives.

2. A 2 (expectations about the future: self-relevant pessimistic or non-self-relevant pessimistic) \times 2 (target of prejudice: women or Canary Islanders) ANOVA on the emotional well-being composite resulted in no significant effects for expectations about the future, $F(1, 33) = 1.79$, $p = .19$, or target of prejudice, $F(1, 33) = 2.14$, $p = .15$. The analysis did, however, reveal a marginally significant interaction between these variables, $F(1, 33) = 3.58$, $p = .07$.

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