

Personality and Social Psychology Bulletin

<http://psp.sagepub.com/>

Perspective and Prejudice: Antecedents and Mediating Mechanisms

John F. Dovidio, Marleen ten Vergert, Tracie L. Stewart, Samuel L. Gaertner, James D. Johnson, Victoria M. Esses, Blake M. Riek and Adam R. Pearson

Pers Soc Psychol Bull 2004 30: 1537

DOI: 10.1177/0146167204271177

The online version of this article can be found at:

<http://psp.sagepub.com/content/30/12/1537>

Published by:



<http://www.sagepublications.com>

On behalf of:



Society for Personality and Social Psychology

Additional services and information for *Personality and Social Psychology Bulletin* can be found at:

Email Alerts: <http://psp.sagepub.com/cgi/alerts>

Subscriptions: <http://psp.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://psp.sagepub.com/content/30/12/1537.refs.html>

Perspective and Prejudice: Antecedents and Mediating Mechanisms

John F. Dovidio

Colgate University

Marleen ten Vergert

University of Nijmegen

Tracie L. Stewart

Georgia State University

Samuel L. Gaertner

University of Delaware

James D. Johnson

University of North Carolina

Victoria M. Esses

University of Western Ontario, Wilmington

Blake M. Riek

University of Delaware

Adam R. Pearson

Colgate University

The present work investigated mechanisms by which Whites' prejudice toward Blacks can be reduced (Study 1) and explored how creating a common ingroup identity can reduce prejudice by promoting these processes (Study 2). In Study 1, White participants who viewed a videotape depicting examples of racial discrimination and who imagined the victim's feelings showed greater decreases in prejudice toward Blacks than did those in the objective and no instruction conditions. Among the potential mediating affective and cognitive variables examined, reductions in prejudice were mediated primarily by feelings associated with perceived injustice. In Study 2, an intervention designed to increase perceptions of a common group identity before viewing the videotape, reading that a terrorist threat was directed at all Americans versus directed just at White Americans, also reduced prejudice toward Blacks through increases in feelings of injustice.

Keywords: *empathy; perspective taking; prejudice reduction; racism; social identity; social categorization*

What type of interventions can be used to improve attitudes not only toward specific members of another

group but also toward the group as a whole? Interventions that change people's perspectives so that they are coordinated with the experiences of members of other groups appear particularly promising in meeting this goal. Perspectives that have involved imagining how one would feel in another person's situation (Finlay & Stephan, 2000) and focusing on the feelings of another (Batson, Polycarpou, et al., 1997; Vescio, Sechrist, & Paolucci, 2003) have both proven effective for reducing intergroup prejudice and bias. The present research, consisting of two studies, was designed to explore a variety of potential routes through which perspective tak-

Authors' Note: Preparation of this chapter was supported by National Institute of Mental Health (NIMH) Grant MH 48721 to John F. Dovidio and Samuel L. Gaertner. We are grateful to two anonymous reviewers for their helpful comments on an earlier version of the article. Correspondence should be sent to John F. Dovidio, Department of Psychology, University of Connecticut, 406 Babbidge Road U-20, Storrs, CT 06269-1020; e-mail: john.dovidio@uconn.edu.

PSPB, Vol. 30 No. 12, December 2004 1537-1549
DOI: 10.1177/0146167204271177

© 2004 by the Society for Personality and Social Psychology, Inc.

ing can reduce intergroup prejudice and to examine how the development of a common ingroup identity (Gaertner & Dovidio, 2000) can operate to reduce bias through these mechanisms.

Several different theoretical accounts have been posited to explain how perspective taking can improve attitudes toward a group as a whole. These involve (a) generalizing positive feelings toward a specific group member to the larger group, (b) enhancing interest in the welfare of others, (c) arousing feelings and perceptions of injustice concerning the treatment of members of particular groups, (d) altering cognitive representations of target group members, and (e) inhibiting stereotyping. Each of these five mechanisms has received some support in previous research.

With respect to generalizing positive feelings and enhancing interest in the welfare of others, Batson, Polycarpou, et al. (1997) found that asking participants to imagine how the other person was feeling, compared to attending primarily to the information presented, increased how positively participants felt toward a particular member of the target group as well as improved attitudes toward the larger group to which the person belonged. Batson et al. suggested that perspective taking may increase the salience of the target as a prototype for his or her group, and as a consequence, positive feelings toward that person, which were presumed to be an indicator of caring for that person's welfare, generalize to the group as a whole. Further support for this position was obtained by Batson, Chang, Orr, and Rowland (2002). They showed that focusing on a particular group member's feelings, in this case a drug addict's feelings as he described his misfortunes (how he became addicted, got arrested, and spent time in prison), elicited higher levels of empathic concern (e.g., feeling sympathetic) than did focusing on the facts of the person's situation. Stronger feelings of empathic concern, in turn, increased caring about the person's welfare, which then mediated improved attitudes toward the group as a whole. Vescio et al. (2003) have similarly demonstrated that arousing feelings of empathic concern through perspective taking can reduce prejudice toward Blacks.

In a different context, Finlay and Stephan (2000) demonstrated that taking the perspective of a member of a stigmatized group who described experiences of discrimination can increase the salience of perceived injustice and arouse feelings, such as anger, coordinated with those of the group member. As Stephan and Finlay (1999) explained,

Learning about suffering and discrimination while empathizing with the victims may lead people to . . . come to believe that the victims do not deserve the mistreatment. . . . If the victims do not deserve this unjust treatment, it

may no longer be tenable to hold such negative attitudes toward them. (p. 735)

In addition, Esses and Dovidio (2002) found that Whites who were instructed to focus on their feelings while watching incidents of racial discrimination were more motivated to engage in interracial contact than were those who were asked to focus on their thoughts (and those in control conditions who did not witness discrimination). Affective reactions, which were primarily ones of indignation (such as feeling appalled and angered) associated with perceptions of injustice, mediated the effect of the focus on feelings versus thoughts on the willingness to engage in intergroup contact.

Perspective taking also can directly influence cognitive processes involved in both the interpersonal and intergroup representations of the target group member. At the interpersonal level, imagining the feelings of another person may produce "self-other merging" (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Davis, Conklin, Smith, & Luce, 1996; Galinsky & Moskowitz, 2000), in which the member becomes included more fully as part of one's self-representation (Aron, Aron, Tudor, & Nelson, 1991), which then produces more positive orientations toward the group as a whole.

At the intergroup level, taking the perspective of a member of another group might produce more inclusive category representations. Stephan and Finlay (1999) suggest that taking the perspective of another person may lead people "to perceive that they themselves and members of the other group share a common humanity and a common destiny" (p. 735). Thus, perspective taking can help change perceptions from being members of different groups to being members of a common group. For instance, recategorizing others, who were previously viewed as members of a different group, within a common ingroup identity can then redirect the forces of ingroup bias to improve attitudes toward the former outgroup members, which may generalize to more positive attitudes toward the group as a whole (Gaertner & Dovidio, 2000; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993).

Finally, taking the perspective of a member of another group may lead people to focus on the unique aspects of the individual, which reduces the salience of intergroup boundaries. Along these lines, Galinsky and Moskowitz (2000) found that instructions to college students to take the perspective of an elderly person by writing an essay about "a day in the life of this individual as if you were that person, looking at the world through his eyes and walking through the world in his shoes" (Galinsky & Moskowitz, 2000, p. 711) reduced stereotype activation (based on response times on a lexical decision task) and stereotype use (application) compared to students who

wrote the essay without receiving these instructions. To the extent that negative stereotypes are less likely to be activated or used when taking the perspective of a member of another group, attitudes toward the group may be expected to be less negative than would ordinarily be the case.

Study 1 of the present research therefore investigated the effects of perspective taking on attitudes of Whites toward Blacks and examined the operation of these alternative mechanisms in reducing prejudice. In Study 2, we focused on the effects of common ingroup identity on the mechanisms of perspective taking and reducing racial prejudice.

STUDY 1

In Study 1, White participants, who were pretested for their racial attitudes, viewed a videotape of a television documentary presenting a series of discriminatory acts toward a Black man versus a White man while the two engaged in common activities (e.g., shopping, renting an apartment). Based on the work of Batson and his colleagues (Batson et al., 2002), the participants were instructed to imagine how the Black person felt or to be as objective as possible while viewing the videotape. In a third, control condition, participants were not given specific observational set instructions.

We then measured attitudes and responses hypothesized to be associated with the different potential processes by which perspective taking could improve attitudes toward outgroups. Our primary measure of attitudes was Brigham's (1993) Attitudes Toward Blacks Scale. We also measured participants' emotional reactions to the video, including empathic concern and negative feelings associated with recognizing injustice. To evaluate the role of generalized positive feelings for a particular member of a group to attitudes toward the group as a whole (Batson, Polycarpou, et al., 1997), we operationalized positive feelings as liking for that person. To investigate the role of interpersonal and intergroup representations of the other person, we assessed self-other merging (Aron et al., 1991) and obtained ratings about the extent to which participants perceived the other person as a unique individual (decategorization), as a member of a different group, and as a member of the same group (recategorization; Gaertner et al., 1993). To explore how perspective taking influenced the application of stereotypes (Galinsky & Moskowitz, 2000), we had participants rate both the Black person on the videotape and Blacks in general on a variety of characteristics, including stereotypic ones.

We note that for several reasons the present research was *not* intended as a critical test of competing frameworks. First, the present work investigated these pro-

cesses within a specified context (viewing acts of discrimination) and with a particular set of perspective-taking instructions. It is possible that factors such as the explicitness of discrimination that a target person experiences or other aspects of the person's problem may alter the relative salience and thus the strengths of effects of different hypothesized processes. Second, it is quite likely that the processes proposed reflect complementary rather than competing mechanisms. As a consequence, any or all of these processes could operate simultaneously and in concert. Indeed, there is often conceptual overlap between the positions. For instance, one reason why perspective taking might inhibit stereotype activation is because it leads to more self-other merging (Galinsky & Moskowitz, 2000). Thus, we caution that failure to demonstrate a particular process should not be taken as evidence that this process cannot operate in other circumstances. Instead, evidence that we have for a process can be interpreted to support the generalizability of previously demonstrated effects or introduce new possibilities into the literature on perspective taking and intergroup attitudes.

Method

Participants. Sixty-six undergraduate students (26 men, 40 women, distributed equivalently across conditions), who self-identified as White, from a liberal arts college in the Northeastern United States, participated in the experiment. Participation in the study partially satisfied one option for an introductory psychology course expectation. All participants were pretested at the beginning of the semester on Brigham's (1993) Attitudes Toward Blacks Scale. The mean response of participants in the present study on these items, which could range from 1 to 5, was 1.99 ($SD = .57$).

Procedure. The experiment was conducted between 2 and 8 weeks after pretesting. Upon arrival in the laboratory, participants were informed that they would be asked to perform different tasks, varying in complexity, concerning their feelings, opinions, and attitudes. Participants were seated at computer stations in separate small rooms. They were told that, to save time and resources, data for two different studies would be collected in the session and that the computer would provide them with all necessary instructions and would guide them from one task to the other throughout the session. After signing the certificate of informed consent, participants were left alone to start the experiment.

The session consisted of a series of different tasks. Participants first received instructions either to "take an objective perspective toward what is described" or to "imagine how . . . the African American person in the documentary feels," or they were given no instructions

while observing a tape of a documentary. The documentary presented a series of examples of racial discrimination as a Black man and a White man were videotaped while performing daily activities, such as shopping in a store or attempting to rent an apartment. Immediately after viewing the tape, participants were asked to complete a series of questionnaires. The first two, the Emotional Response Questionnaire and the Impressions of the Documentary Questionnaire, were described as assessments of reactions to the documentary. The next questionnaire asked the participants to evaluate Glen, the Black man in the documentary, on a collection of personal characteristics. Finally, ostensibly as part of another study, participants completed a second set of questionnaires that were described as representing social decision making about groups.

Observational set manipulation. All participants were presented with a task described as an assessment of a documentary. Instructions displayed on the computer screen informed participants that they would be shown a digitally recorded video clip. They were told that the segment would be an excerpt from a documentary showing the experiences of a Black man and a White man in a variety of everyday circumstances.

Before the video clip was started, participants were informed that the study explored how different ways of looking at a documentary might influence viewers' reactions, and they received either instructions, modeled after the Observational Set manipulation used by Batson and his colleagues (see Batson et al., 2002; Batson, Polycarpou, et al., 1997), that asked them to "try to imagine how Glen, the African American in the documentary, feels about what is happening and how it affects his life" ($n = 22$) or to "try to take an objective perspective toward what is described" ($n = 22$), or they received no specific instructions ($n = 22$). The mention of Glen as an African American was to distinguish him from the White person who was used as a comparison in the video.

The documentary segment was a 5-min excerpt from a longer segment ("True Colors") that aired on a U.S. news magazine show (see also Esses & Dovidio, 2002). In the excerpt that was shown to participants, a White man and a Black man are shown going about everyday activities. The narrator of the documentary details the differential treatment received while the men are shopping, seeking employment, and looking for an apartment. The documentary made it very clear that the men were treated differently and that Glen (the Black man in the documentary) received unfair treatment because of his race.

Dependent measures. The Emotional Response Questionnaire was modeled after the work of Batson and his colleagues (see Batson, 1991) and was intended to assess

how much participants experienced (from 1 = *not at all* to 7 = *extremely*) a range of emotions reflecting empathic concern (e.g., sympathetic, touched) and personal distress (e.g., disturbed, upset). We also included items designed to address feelings of injustice (e.g., angered, alarmed).

Responses to items on the Evaluation of the Interview form primarily used a 7-point response format (1 = *not at all* to 7 = *extremely*). This questionnaire contained items designed to assess the effectiveness of the Observational Set manipulation, specifically the item, "To what extent did you try to imagine how Glen felt during the events presented in the documentary?" To assess liking, participants were asked, "How likable do you find Glen?" "To what degree would you enjoy having Glen as a friend?" and "How friendly do you find Glen?" These three items (Cronbach's alpha = .92) were averaged to create a Liking score. Self-other merging was measured with the Aron et al. (1991) Inclusion of Other in Self Scale, in which participants were asked to rate how they felt about the connection between themselves and Glen, the Black person in the documentary, by selecting a pair of increasingly overlapping circles, labeled 1 through 7, representing themselves and Glen. Three additional ratings assessed cognitive representations of Glen "as a unique and separate individual," "as a member of a different group," and "as a member of your own group."

The final measure in what was described as the first study in the session was designed to assess stereotype application. Participants were asked to rate the extent to which they personally associated a series of traits (1 = *not at all associated* to 9 = *very much associated*) with "Glen, the African American male in the documentary." Included among these traits were, as determined by pretesting, three positive Black stereotypic traits (athletic, musical, and religious) and three negative Black stereotypic traits (poor, hostile, and loud). Responses to these six items were averaged (Cronbach's alpha = .79) and these responses were later analyzed for the extent to which participants associated Black stereotypic characteristics with Glen.

General racial stereotypes and attitudes. Ostensibly as part of a study conducted by another experimenter, participants completed a separate series of questionnaires about "attitudes and opinions." Among these questionnaires were two scales of primary interest in the present research, one about stereotypes and the other about attitudes. In particular, participants completed a trait attribution task, rating "Black Americans in general" on the positive and negative Black stereotypic traits that were used previously to rate Glen (Cronbach's alpha = .81). In addition, the final scale in the packet was Brigham's (1993) 20-item Attitudes Toward Blacks

TABLE 1: Effects of Observational Set on Changes in Prejudice and Its Potential Mediating Variables and the Correlations of the Potential Mediators and Change (Decrease) in Prejudice (Study 1)

	Condition Means			Observational Set		Contrast (+2, -1, -1)		Correlation
	Imag.	Obs.	No Inst.	F(2, 63)	p <	F(1, 64)	p <	r(64)
Change in prejudice (posttest – pretest)	-.33	.07	.05	3.90	.025*	7.92	.007*	1.00
Affective mediators								
Empathic concern	3.49	3.47	3.60	0.06	.944	0.02	.891	.08
Personal distress	5.18	4.41	4.72	1.88	.161	3.20	.078	.26*
Feelings of injustice	5.67	5.03	4.64	3.63	.032*	6.29	.015*	.33*
Liking	5.85	5.30	5.70	1.39	.256	1.44	.236	.13
Cognitive mediators								
Self-other merging	4.32	3.14	3.73	3.32	.043*	4.93	.030*	.15
Unique individual	5.18	4.64	4.77	0.53	.590	1.02	.317	-.02
Different group	3.68	3.27	4.05	1.16	.319	0.01	.959	-.13
Own group	3.82	3.32	3.36	0.71	.495	1.43	.236	-.07
Stereotype of Glen	2.41	2.32	2.60	0.27	.763	0.02	.877	-.18
Stereotype of Blacks	5.87	5.94	5.96	0.04	.964	0.07	.796	.01

NOTE: Imag. = Imagine condition, Obs. = Observe condition, No Inst. = No Instruction condition.

* $p < .05$.

Scale using a 1 (*disagree strongly*) to 5 (*agree strongly*) response format, which constituted our primary measure of prejudice.

Results

The analyses examined, in order, participants' emotional reactions to viewing the documentary, responses on Brigham's (1993) Attitudes Toward Blacks Scale (our primary measure of prejudice), and the processes that mediated the effect of Observational Set on change in prejudice. Analyses demonstrated no systematic effects associated with participant sex across the dependent variables. Consequently, sex was not included as an independent variable in the analyses described here.

Emotional responses to the documentary. Preliminary factor analyses using varimax rotation on emotional responses to the documentary revealed that, consistent with previous research (Batson et al., 2002), four of the items on the Emotional Response Questionnaire (sympathetic, soft-hearted, tender, and touched) loaded on the same dimension (eigenvalue = 1.31), which reflected empathic concern (Cronbach's alpha = .83). Also consistent with Batson's (1991) previous work, a second factor (including the items distressed, disturbed, upset, and grieved; eigenvalue = 2.27) emerged that represented personal distress (Cronbach's alpha = .85). A third factor (eigenvalue = 5.07), containing the four items angered, annoyed, alarmed, and bothered, which we hypothesized to be associated with perceptions of social injustice, also emerged (Cronbach's alpha = .88). There was a significant difference in the levels of these emotions reported by participants, $F(2, 130) = 39.00, p < .001$. Participants reported experiencing feelings of injustice

($M = 5.11$) more strongly than personal distress ($M = 4.78$), $t(65) = 1.97, p = .05$, and experiencing personal distress more strongly than empathic concern ($M = 3.52$), $t(65) = 6.94, p < .001$.

Attitudes Toward Blacks Scale. Our main measure of prejudice, Brigham's (1993) Attitudes Toward Blacks Scale, had high internal consistency in the present sample both at the time of pretesting (Cronbach's alpha = .80) and at the posttest during the experimental session (Cronbach's alpha = .87). The responses for the 20 items on this scale were averaged to form pretest and posttest prejudice scores (which could range from 1 to 5), with higher scores representing higher levels of prejudice.

Effects of Observational Set on perspective and prejudice. As expected, the one-way analysis of variance comparing the extent to which participants focused on imagining Glen's feelings during the video clip revealed a significant difference as a function of Observational Set, $F(2, 63) = 32.32, p < .001$. Participants in the Imagine condition focused most on his feelings ($M = 6.27$), whereas those in the Observe condition focused the least on his feelings ($M = 3.27$). Participants who did not receive specific observational set instructions showed an intermediate level ($M = 5.60$), somewhat less than participants in the Imagine condition, $t(42) = 1.66, p < .11$, and more than participants in the Observe condition, $t(42) = 5.65, p < .001$.

For our primary measure of prejudice, Brigham's (1993) Attitudes Toward Blacks Scale, there were no differences among the observational set conditions at the time of the pretest, as anticipated, $F(2, 63) = 1.71, p < .19$. However, as predicted, the analysis of change in prejudice (i.e., the difference in prejudice from pretest to

posttest) demonstrated an Observational Set effect, $F(2, 63) = 3.90, p < .03$. As indicated in Table 1, participants in the Imagine condition showed the greatest reduction in prejudice: Imagine, $\text{posttest} - \text{pretest} = 1.81 - 2.14 = -.33$; Observe = $2.09 - 2.02 = .07$; No Instructions = $1.87 - 1.82 = .05$. Reduction in prejudice in the Imagine condition was significantly greater than that of participants in the Observe condition, $t(42) = 2.26, p < .04$, and the No Information condition, $t(42) = 2.57, p < .02$, whereas the latter two conditions did not differ. Moreover, looking within each condition, the change in prejudice from pretest to posttest was statistically significant only in the Imagine condition, $t(21) = 2.70, p < .02$, and not in either the Observe or the No Instructions condition ($ps > .50$).

Effects of Observational Set on potential mediating variables. Table 1 presents the means of the potential mediating variables, classified as affective or cognitive, for each condition. Affective variables included the measures of empathic concern, personal distress, and feelings of injustice. Liking for Glen, the Black person victimized by discrimination in the documentary, also was considered an affective variable. Cognitive measures included stereotypic associations with Glen, specifically, and with Blacks in general, self-other merging (Aron et al., 1991), and representations of Glen as a separate individual, as a member of a different group, or as a member of a common group (Gaertner & Dovidio, 2000). Table 1 also reports the effect of Observational Set on each variable and the correlation of each measure with change in prejudice (with more negative correlations indicating that the measure was associated with greater decreases in prejudice).

Tests for mediation. To test for mediation of the relation between the Observational Set manipulation and changes in scores on Brigham's (1993) Attitudes Toward Blacks Scale, we adopted the multiple regression procedure of Baron and Kenny (1986). To dichotomize the independent variable, the effect tested was the Observational Set contrast (+2, -1, -1) that compared the effect of the Imagine condition to the combination of Observe and No Information conditions. Mediation is established by the co-occurrence of a series of effects. First, when the dependent variable (change in prejudice) is regressed on the independent variable (Observational Set), it should be shown that the independent variable predicts the dependent variable. Second, the independent variable should predict the potential mediator. Third, when the dependent variable (change in prejudice) is regressed on the independent variable simultaneously with the potential mediator, the potential mediator relates to the dependent variable. Also, in this last equation, the effect of the independent variable on the dependent variable should be weaker

than in the first equation and potentially reduced to nonsignificance.

With respect to the first step in the test for mediation, the Observational Set contrast predicted changes in prejudice ($\beta = -.33, t = 2.81, p < .007$). In terms of the second step in the test for mediation, only two of the variables qualified as mediators. The Observational Set contrast predicted self-other merging ($\beta = .27, t = 2.22, p < .03$) and feelings of injustice ($\beta = .30, t = 2.51, p < .02$), but not any of the other potential mediators (see Table 1).

In the third step of the test for mediation outlined by Baron and Kenny (1986), we again used the contrast between the Imagine Condition and the combination of the Observe and No Instruction conditions as the independent variable and then we tested for mediation by the two measures that met the second criteria (feelings of injustice and self-other merging). Supportive of mediation, in the equation in which the Observational Set contrast and feelings of injustice were simultaneous predictors of decreases in prejudice, feelings of injustice had a significant independent effect ($\beta = -.25, t = 2.07, p < .05$). Also, the effect for the Observational Set contrast ($\beta = -.26, t = 2.13, p < .04$) was significantly weaker (using the Freedman & Schatzkin, 1992, test for the change in betas; see MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002), $t(98) = 2.07, p < .05$, when the measure of feelings of injustice was considered in the equation predicting change in prejudice than when it was not. In contrast, inconsistent with mediation, when self-other merging was considered along with the Observational Set contrast in the regression equation, the effect of the Observational Set ($\beta = -.31, t = 2.56, p < .02$) was comparable, $t(98) = .54, p > .50$, to the effect when only Observational Set was included and self-other merging did not predict decreases in prejudice beyond the effect of Observational Set ($\beta = -.07, t = .53, p < .61$). Finally, consistent with the interpretation that feelings of injustice was the primary mediator of the relation between Observational Set and reduction in prejudice, in one final regression equation in which Observational Set, self-other merging, and feelings of injustice were entered simultaneously as predictors of prejudice reduction, the only significant predictor was feelings of injustice ($\beta = -.25, t = 2.03, p < .05$). The effect for self-other merging did not approach significance ($\beta = -.05, t = .43, p < .67$).¹

Discussion

Perspective taking, using a variety of instructions such as to imagine how another person feels (Batson et al., 2002; Batson, Polycarpou, et al., 1997; Vescio et al., 2003), to imagine being in the same situation (Finlay & Stephan, 2000), and to imagine that you are the other

person (Galinsky & Moskowitz, 2000), has been identified as a promising strategy for improving attitudes toward members of other groups (Stephan & Finlay, 1999). The overall pattern of results from the present study supports this conclusion. Moreover, we found direct evidence that feelings associated with recognizing injustice (angered, annoyed, alarmed, and bothered) after viewing acts of racial discrimination are key mediators of decreases in prejudice. The other potential mediators examined in the present research—empathic concern, personal distress, positive feelings (liking), self-other merging, stereotyping, and group representations—did not significantly mediate the effect of perspective taking on prejudice reduction.

As we noted at the outset, however, our research was not designed as a critical test of competing hypotheses; lack of support for a position in this particular context does not challenge the validity of that position in other contexts. Which processes operate as the main mediating mechanisms may vary as a function of the nature of the episode witnessed and the type of response it primarily elicits. In the research by Batson and his colleagues (Batson et al., 2002; Batson, Polycarpou, et al., 1997), the segment participants listened to a description of the person's misfortunes and elicited high levels of empathic concern. In our research, the segments focused on racially biased behavior and generated predominantly high levels of feelings of injustice. In this light, our findings may be seen as complementary, rather than as contradictory, to those of Batson et al. (2002; Batson, Polycarpou, et al., 1997). That is, when the primary emotion elicited by another person's situation is empathic sympathy and compassion, empathic concern may be the primary mediator of improved intergroup attitudes; when the situation highlights injustice and the predominant emotions elicited relate to anger and annoyance, feelings of injustice may primarily mediate the effect of perspective taking on reductions in prejudice. Moreover, it is possible that feelings, such as personal distress or anger associated with perceiving injustice, or cognitive responses, such as self-other merging, that often represent self-directed emotions may be another form of empathy to the extent that they are elicited by and coordinated with the perceived welfare of another (Batson, Early, & Salvarani, 1997). That is, rather than being considered inherently egoistic or altruistic, different measures may vary in their motivational properties and consequences in different contexts.

Given the directness of the Observational Set manipulation and the explicitness of the measures of racial attitudes and most of the hypothesized mediators, a question about the potential influence of demand characteristics or social desirability concerns might arise for the interpretation of the results of the present study. We

note, however, that our manipulation was comparable in directness to those used by Batson et al. (2002; Batson, Polycarpou, et al., 1997) and Stephan and Finlay (1999), and our measures were similar in explicitness. In addition, the facts that participants in the Observe condition did not differ from those in the No Instructions Condition in their changes in racial prejudice and that the levels of prejudice in these conditions were equivalent to the levels at the time of pretesting suggest that our instructions did not overly sensitize our participants to the focus of our work.

Study 2, however, was designed to extend the ideas and findings of Study 1 while incorporating several methodological improvements. Conceptually, we explored how an intervention designed to influence the salience of a common ingroup identity (Gaertner & Dovidio, 2000; Gaertner et al., 1993) could influence reductions in intergroup bias through related processes. Methodologically, inducing these processes demonstrated in Study 1 more indirectly, by increasing the salience of a common ingroup identity, also can help address concerns about the influence of demand characteristics in our procedure.

STUDY 2

Intergroup inclusion and exclusion have critical implications for one's attitudes toward others. Attraction and prejudice are fundamentally related to social categorization and to the perception of intergroup boundaries—boundaries that define who is included in one's own group (a "we") and who is excluded (a "they"). Upon social categorization, people favor ingroup members in terms of evaluations, attributions, material resources, helping, and social support (see Gaertner & Dovidio, 2000, for a review; see also Social Identity Theory: Tajfel & Turner, 1979; Self-Categorization Theory: Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Thus, changing the nature of intergroup inclusion and exclusion can have important consequences for interpersonal and intergroup relations.

The Common Ingroup Identity Model (Gaertner & Dovidio, 2000) posits that the salience of social categories, and thus who is perceived as a "we" or as a "they," can vary as a function of a range of different factors, such as perceptions of common fate (Gaertner et al., 1999). Moreover, to the extent that people who were originally perceived as outgroup members become recategorized as members of a shared superordinate group (e.g., the recategorization of Blacks and Whites as Americans), intergroup prejudice and discrimination will be reduced through the extension of pro-ingroup bias to former outgroup members. Nier, Gaertner, Dovidio, Banker, and Ward (2001), for instance, found that White

college students who were induced to perceive themselves and their Black partners as members of the same laboratory team evaluated their Black partners more favorably than did White students who perceived themselves and their Black partners as separate individuals participating in the study at the same time.

In Study 2, we investigated how an intervention to induce a common ingroup identity can influence attitudes toward Blacks in general and further examined the role of feelings of injustice in this process. Participants in Study 2 were led to believe that they were participating in a series of different studies. In the first segment, they were asked to read a newspaper article about a terrorist threat to the United States that emphasized Whites as the main target (Exclusive Threat condition) or Americans of all racial and ethnic backgrounds as targets (Inclusive Threat condition). Then, in an ostensibly separate second study, participants followed essentially the procedures of the control, No-Instruction condition of Study 1. Finally, supposedly as part of a third study, participants completed a series of "attitudes and opinions" questionnaires that included Brigham's (1993) Attitudes Toward Blacks scale as well as feeling and attitude "thermometers" assessing orientations toward racial and ethnic minority groups (Blacks, Latin Americans, and Asian Americans) and other disadvantaged groups (elderly people and handicapped persons). Methodologically, Study 2 included a different video segment depicting racial discrimination (a recounting of a racially motivated murder) presented to half the participants to examine the generalizability of the findings beyond the stimulus tape used in Study 1. In addition, we employed a fuller range of items to assess feelings of injustice, empathic concern, and personal distress.

We expected that because of the experience of shared threat and common fate, the Inclusive Threat condition would produce stronger perceptions that the Black person subsequently viewed on the videotape was a member of the White participants' own group than would the Exclusive Threat condition (see Gaertner et al., 1999). As outlined in the Common Ingroup Identity Model (Gaertner & Dovidio, 2000; Gaertner et al., 1993), emphasizing superordinate identity profoundly affects people's orientation to others previously viewed only as outgroups: Cognitive representations of the self and the ingroup become directly linked (Smith & Henry, 1996), people respond to others primarily on the basis of their shared membership rather than individual characteristics (Hogg & Hains, 1996), and because identity extends from personal ("me") to collective ("we"), the experiences of other ingroup members have direct relevance to and impact on one's own responses (Clay-Warner, 2001; Onorato & Turner, 2001). As a consequence, people are more likely to adopt spontaneously the perspec-

tive of other ingroup members and may be more sensitive and responsive to their experience of procedural injustice (Clayton & Opatow, 2003). Thus, if group boundaries are redefined to include former outgroup members within a superordinate category, people will more readily recognize and respond to unfair treatment of them.

Supportive of this rationale, Smith and Tyler (1996) found that White respondents with a stronger American identity were more likely to base their support of affirmative action on concerns about fairness for different groups rather than on self-interest or White group-interest. Consequently, in the present study, the Inclusive Threat condition was expected to elicit processes similar to those demonstrated in the Imagine Observational Set condition in Study 1, without explicit instructions, with participants focusing more strongly on the feelings of the Black person in the video segment, experiencing stronger feelings of injustice, and ultimately showing greater reductions in prejudice toward Blacks than would participants in the Exclusive Threat condition.

Finally, by including measures of feelings and attitudes toward other groups (Latin Americans, Asian Americans, elderly people, and handicapped persons), we also explored whether these effects would be specific to Blacks (the focus of injustice on the videotape) or would extend to other groups associated with the superordinate identity (Latin Americans and Asian Americans) or to other minority groups (elderly or handicapped people) not directly implicated in the manipulation of Inclusive/Exclusive Threat.

Method

Participants. One hundred White undergraduate students (45 men, 55 women), who were pretested at the beginning of the semester on Brigham's (1993) Attitudes Toward Blacks Scale, participated in Study 2. The mean response of Study 2 participants on this scale (Cronbach's alpha = .86) was 2.03 ($SD = .53$).

Procedure. Upon arrival in the laboratory, participants were informed that for efficiency they were scheduled for a series of different studies within the same time block. To support this cover story, three experimenters were involved in each session, separate certificates of informed consent were used for the different phases of the study, and the first and last parts of the study used paper-and-pencil methods, whereas the middle phase was administered largely with computer-presented instructions and stimuli (and was preceded directly by instructions about this method of administration). The first "study," which was designed to influence participants' perceptions of their relationship with Blacks, was

introduced as an examination of students' "views about the war on terror." They were asked to read a 400-word newspaper article ("Al Qaeda Terrorist Threat in the U.S.: Who Is at Risk?") and then answer questions about their perceptions of the terrorist threat in the United States.

Two versions of the newspaper article were created using Adobe Photoshop and Microsoft Publisher and modeled after an urban newspaper. One version, representing the Exclusive Threat condition, emphasized White Americans as the target of the terrorist threat. For example, the article began, "The recent series of terrorist acts . . . signals a dramatic escalation in the threat Al Qaeda poses to citizens of the United States, primarily White Americans." An unidentified Al Qaeda source is quoted as saying, "Our focus is the White majority, the basis of power in America," and later, an intelligence source is quoted as remarking, "White Americans are primarily at risk." The other version of the article, representing the Inclusive Threat condition, emphasized all Americans as being equal targets of the terrorist threat. For example, the article began, "The recent series of terrorist acts . . . signals a dramatic escalation in the threat Al Qaeda poses to all citizens of the United States, regardless of race, religion, or status." In the article, the Al Qaeda source states, "All Americans are our targets. We do not see race, religion or ethnicity—only Americans"; the U.S. intelligence source emphasizes, "All Americans are at risk." Participants then answered a series of questions about the risk of terrorism, including questions about how much (1 = *not at all* to 7 = *extremely*) the Al Qaeda threat is directed at Black Americans, White Americans, and all Americans.

After completing this "first study," participants were instructed by another experimenter in how to use the computer stations in separate small rooms for the "next studies." The session followed the procedure of the No Instruction control condition of Study 1, with the focus on the mediating process identified in Study 1. To explore the generalizability of the effects, a second videotape clip was used for half of the participants; the other half viewed the same clip used in Study 1. The new video clip, which was comparable in length, was an excerpt from the series "Eyes on the Prize 2, Part 8," titled "Back to the Movement." The segment describes the 1979 beating death of Black motorcyclist Arthur McDuffie, who was assaulted by police officers in Dade County, Florida, following a high-speed chase. The segment focuses on the reaction of a close, African American friend, Lonnie, who expresses sadness and despair.

After viewing one of the videotape clips, participants were first asked to complete the Emotional Response Questionnaire, which contained items reflecting empathic concern (the four items from Study 1—

sympathetic, soft-hearted, tender, and touched—plus empathic and concerned; eigenvalue = 2.94, Cronbach's alpha = .81), personal distress (distressed, disturbed, upset, grieved, and troubled; eigenvalue = 4.19, Cronbach's alpha = .85), and feelings of injustice (the four items from Study 1—angered, annoyed, alarmed, and bothered—plus two additional items, irritated and outraged; eigenvalue = 3.43, Cronbach's alpha = .86). As in Study 1, participants in Study 2 reported experiencing these emotions to different degrees, $F(2, 198) = 25.77$, $p < .001$. They experienced feelings of injustice somewhat, but not significantly, more strongly than personal distress ($M_s = 5.38$ vs. 5.28 , $p < .26$) and personal distress significantly more strongly than empathic concern ($M = 4.68$), $t(99) = 5.83$, $p < .001$.

Next, we administered the Impressions of the Documentary Questionnaire, which asked participants to what extent (1 = *not at all* to 7 = *extremely*) (a) "did you see Glen [Lonnie] as a member of a different group?" "did you see Glen [Lonnie] as a member of your own group?" and (c) "did you try to imagine how Glen [Lonnie] felt during the events presented in the documentary?" Finally, as an ostensibly unrelated task, participants were asked to complete a set of questionnaires that included the stereotype trait attribution task for "Black Americans in general" from Study 1 (Cronbach's alpha = .85); Brigham's (1993) Attitudes Toward Blacks Scale (Cronbach's alpha = .89); and a series of attitude and feeling "thermometers," ranging from 0 to 100, assessing participants' orientations toward the three largest racial/ethnic minorities in the United States (Blacks, Latin Americans, and Asian Americans) as well as toward elderly people and handicapped people. The responses on the attitude and the feeling thermometers combined to form a single measure of orientation toward each of these groups (Cronbach's alphas = .91 for Blacks, .97 for Latin Americans, .95 for Asian Americans, .94 for handicapped people, and .88 for elderly people).

Results

We first examined the impact of the Inclusive/Exclusive Threat manipulation on the variables of interest and then, in mediation analyses, we explored how Inclusive/Exclusive Threat produced changes in prejudice. Because there were no systematic main effects or interactions associated with Participant Sex or Documentary Video Clip, these factors were not included in the analyses reported below.

Effects of Inclusive/Exclusive Threat manipulation. The effects of the manipulation of Inclusive/Exclusive Threat on the variables of interest are summarized in Table 2. Participants in the Inclusive Threat condition ("all Americans at risk") perceived greater terrorist

TABLE 2: Inclusive/Exclusive Threat Manipulation Perspective, Representation, Emotional Responses, and Change (Decrease) in Prejudice (Study 2)

	Condition Means		Effect of Manipulation	
	Inclusive Threat	Exclusive Threat	F(1, 98)	p <
Perceptions of threat				
To Black Americans	5.36	4.44	15.04	.001
To all Americans	6.28	5.40	16.35	.001
To White Americans	6.22	6.36	0.52	.472
Perspective and representations				
Imagine other's feelings	5.80	5.30	6.10	.015
Different group	3.26	3.72	2.15	.146
Own group	4.18	3.36	7.81	.006
Affective responses				
Empathic concern	4.78	4.58	0.76	.386
Personal distress	5.45	5.11	2.30	.133
Feelings of injustice	5.64	5.13	5.20	.025
Group attitudes and orientations				
Change in prejudice (posttest – pretest)	–.15	.03	4.50	.036
Stereotype of Blacks	6.16	5.84	0.07	.796
Orientations toward				
Black Americans	80.09	74.17	3.78	.055
Latin and Asian Americans	79.25	72.30	4.53	.036
Handicapped and elderly people	82.29	80.97	0.18	.671

threat to Black Americans and to all Americans than did those in the Exclusive Threat condition but saw equivalent threat to White Americans. Moreover, as anticipated, participants in the Inclusive Threat condition rated the Black person on the video segment (Glen or Lonnie) as more strongly a member of their own group and somewhat less strongly as a member of a different group. Furthermore, as expected, participants in the Inclusive Threat condition reported that they imagined the other person's feelings during the video segment to a greater degree than did those in the Exclusive Threat condition.

In terms of potential mediators and outcomes, the Inclusive/Exclusive Threat manipulation significantly influenced feelings of injustice in response to the videotape depictions of prejudice but not empathic concern or personal distress. In addition, although there were no differences in attributions of stereotypic traits to Blacks ($p < .18$), greater decreases in prejudice on Brigham's (1993) scale were revealed in the Inclusive than the Exclusive Threat condition. Moreover, participants in the Inclusive Threat condition showed a significant reduction in prejudice from pretest to posttest, $t(49) = 2.84$, $p < .007$, whereas those in the Exclusive Threat condition exhibited no change, $t(49) = .05$, $p < .96$.

To examine whether the manipulation of Inclusive/Exclusive Threat uniquely influenced orientations toward Blacks or generalized to other groups, we examined the thermometer orientation responses to Blacks, to other racial/ethnic minorities (Latin Americans and

Asian Americans), and to nonracial disadvantaged groups (handicapped persons and elderly people) in a 2 (threat: inclusive vs. exclusive) \times 3 (group) analysis of variance, with repeated measures on the last factor. A main effect for Threat, $F(2, 196) = 12.66$, $p < .001$, revealed that, across these three types of groups, participants in the Inclusive Threat condition had more favorable orientations toward minority groups than did those in the Exclusive Threat condition, $M_s = 80.8$ vs. 75.8 . The Threat \times Group interaction, $F(2, 196) = 3.53$, $p < .03$, suggested that the effects of the manipulation of Inclusive/Exclusive Threat generalized beyond Blacks to other ethnic groups but not to other disadvantaged groups in general (see Table 2). As indicated in Table 2, although participants in the Inclusive Threat condition, compared to those in the Exclusive Threat condition, had more favorable orientations toward Blacks and toward other racial/ethnic minority groups (Latin Americans and Asian Americans), there was no difference for the other nonracial disadvantaged groups (elderly persons and handicapped people).

Tests of mediation. Although decreases in prejudice correlated with higher levels of feelings of injustice, $r(98) = .37$, $p < .001$, empathic concern, $r(98) = .31$, $p < .001$, and personal distress, $r(98) = .34$, $p < .001$, only the feelings of injustice variable was considered in the tests for mediation because it is the only one of these variables to show an effect of the Inclusive/Exclusive Threat condition. The Inclusive/Exclusive Threat manipulation predicted

feelings of injustice, $beta = .22$, $t = 2.28$, $p < .03$, as well as decreases in prejudice, $beta = -.21$, $t = 2.12$, $p < .04$. When Threat and feelings of injustice were considered simultaneously as predictors of decrease in prejudice, feelings of injustice was still a significant predictor, $beta = .34$, $t = 3.52$, $p < .001$, whereas the effect for the Threat manipulation was no longer significant, $beta = .13$, $t = 1.47$, $p < .17$, and was weaker than when it was considered alone as a predictor, $t(98) = 3.65$, $p < .01$.

Tests of mediation on orientation toward other racial/ethnic minorities, specifically Latin Americans and Asian Americans, yielded similar results. The Inclusive/Exclusive Threat manipulation predicted orientations (thermometer ratings) toward these racial/ethnic minority groups, $beta = .21$, $t = 2.13$, $p < .04$, as well as the hypothesized mediator, feelings of injustice, $beta = .22$, $t = 2.28$, $p < .03$. When the Threat manipulation and feelings of injustice were considered simultaneously as predictors of orientation toward these racial/ethnic groups, the feelings of injustice variable was still a significant predictor, $beta = .31$, $t = 3.22$, $p < .01$, whereas the effect for the Threat manipulation was no longer significant, $beta = .14$, $t = 1.45$, $p < .151$, and weaker than when it was considered alone as a predictor, $t(98) = 3.16$, $p < .01$.²

Discussion

Study 2 provided further confirming evidence of the potential of manipulations that foster the development of a common ingroup identity to reduce intergroup bias (Gaertner & Dovidio, 2000) and extends this line of research by identifying a new intervening process, the critical mediating role of feelings of injustice. Whereas in Study 1, feelings of injustice were aroused by directive perspective-taking instructions, in Study 2, the experience of shared threat and fate, which produced more inclusive, "same group" perceptions of Blacks, promoted feelings of injustice in response to the videotaped segments. Conceptually, the results of Study 2 are consistent with research showing greater sensitivity to the principles of procedural justice and greater responsiveness to perceived injustice when ingroup than when outgroup members are involved (Clayton & Opatow, 2003; Tyler & Blader, 2003). Opatow (1990) has argued, in particular, that individuals have a psychological boundary within which they strongly apply principles of fairness and that this boundary typically includes members of their own group and often excludes members of other groups. Thus, although common group identity did not mediate a reduction in prejudice in Study 1, a manipulation of common threat initiated processes that reduced prejudice in Study 2.

Study 2 also revealed how the experience of Inclusive rather than Exclusive Threat can lead to reductions in prejudice not only toward the group to which the person

who experienced the injustice belonged (in this study, Blacks) but also to at least some other groups (Latin Americans and Asian Americans). Vescio et al. (2003), who manipulated perspective taking directly through the instructions we used in Study 1 (see also Batson et al., 1997) and found that empathic concern mediated lower levels of prejudice toward Blacks, did not show generalizability of these effects to attitudes toward women or homosexuals. These results, taken together, suggest three factors that may moderate the generalizability of the prejudice-reduction effect. One such factor involves the groups included within the superordinate group. In our Study 2, the Inclusive Threat condition identified racial and ethnic minority groups as explicit targets of terrorism. Thus, Blacks, Latin Americans, and Asian Americans were salient representatives of the superordinate category Americans, and the effects of feelings of injustice extended to other groups within this boundary of moral inclusion (Opatow, 1990).

A second factor potentially moderating generalizability involves the similarity of other groups to the group to which injustice occurs. We found that the effect of the Inclusive/Exclusive Threat manipulation, which was mediated by feelings of injustice, extended beyond Blacks to other racial and ethnic minority groups, Latin Americans and Asian Americans, who may be perceived to experience similar forms of discrimination but not to elderly or handicapped people, who may be seen as distinct in their nature and plight from racial/ethnic groups. Vescio et al.'s (2003) finding that imagining the feelings of a Black person reduced prejudice toward Blacks but not toward women or homosexuals may be interpreted as consistent with this explanation.

A third explanation is that generalization may depend on the nature of the reaction elicited by perspective taking. To the extent that perspective taking elicits emotional concern (Batson et al., 2002; Batson, Polycarpou, et al., 1997; Vescio et al., 2003), the effects may be limited primarily to the person's group. Dovidio, Allen, and Schroeder (1990) found that empathic concern had a very specific influence, motivating people to help to relieve the problem that elicited the emotion but not to address an unrelated problem. In contrast, when perspective taking elicits feelings of injustice, people may be more generally motivated to respond favorably and reduce their bias toward any group perceived to be similarly victimized by injustice. Future research might productively consider these alternative interpretations.

GENERAL DISCUSSION

The present research demonstrated, first, the effectiveness of perspective taking (Study 1) and common threat (Study 2) interventions for reducing prejudice

and, second, the common mediating role of feelings of injustice on these reductions in prejudice toward Blacks and other racial and ethnic minority groups. Although these effects were observed with samples of college students who were relatively low in prejudice overall (a mean pretest prejudice score of approximately 2 on a 1 to 5 scale), the generalizability of these effects to other samples is suggested by ancillary analyses. In particular, supplementary analyses, in which participants were classified as low or high in prejudice based on a median split, showed no moderating effects of initial level of prejudice on feelings of injustice, changes in prejudice, or in the central mediational effects.

Future research might productively investigate how the importance of different mediating processes can vary as a function of the intervention used and the outcome assessed. It is possible that affectively oriented perspective-taking interventions may have more direct influence on affective responses than on cognitively based responses, whereas cognitively oriented perspective taking may have more impact on cognitive responses than on feelings (see also Esses & Dovidio, 2002). The interpretation is consistent with Vescio et al.'s (2003) and our findings that increasing how much someone focused on a Black person's feelings reduced prejudice, an attitude with a significant affective component, but not stereotypes, which represent primarily cognitive structures (Dovidio, Brigham, Johnson, & Gaertner, 1996). In contrast, Galinsky and Moskowitz (2000) found that perspective taking with a more cognitive emphasis, writing an essay about "a day in the life" of another person, directly reduced stereotyping. Thus, by considering potentially important differences between our study and previous research, our research suggests potential avenues for future work on the types of factors that may moderate the relative salience and importance of the different mediating mechanisms.

Additional research also could further elucidate the origins and nature of the emotional reaction we have identified as "feelings of injustice." We have argued that these feelings (feeling angered, annoyed, alarmed, and bothered) represent a sense of outrage from witnessing social injustice. However, because these feelings are stronger in conditions in which people are more focused on imagining the feelings of another person, they may reflect "empathic anger," that is, anger experienced when someone harms an individual whose welfare one values. Whether this emotional response is self-directed or other-oriented may be difficult to tease apart empirically, however. Anger is a common reaction to both experiencing injustice and witnessing injustice experienced by others (Krehbiel & Cropanzano, 2000). Thus, once injustice is perceived, personal anger and empathic anger are difficult to separate empirically.

One possible way of distinguishing whether this type of anger is empathic may be to study responses as a function of perspective-taking orientation to the anger of another person that is based either on clear injustice or on some other basis, such as personal failure. Our interpretation of anger as moral outrage suggests that only anger (and related emotions) associated with perceived injustice, not the experience of anger due to imagining another person's anger at failure (e.g., losing fairly in athletic or academic competition), would motivate more positive attitudes toward that person's group. In addition, the further research we previously suggested on the generalizability of the effects of the feelings of injustice on reducing prejudice also can address this conceptual issue. If the anger, annoyance, and related emotions that participants in the present research experienced is rooted in perceptions of injustice, then it may reduce bias toward any group perceived to be victimized by similar types of injustice. If, however, the emotion the situation elicits is empathic anger, then the effect may be far more limited, restricted to reduced prejudice only toward the victim's group. Although Study 2 reveals that feelings of injustice mediated lower levels of prejudice to other racial and ethnic minority groups besides Blacks, convergent evidence using other manipulations to generate these emotional reactions may provide clearer and more definitive evidence of the motivational bases of these emotional reactions.

In conclusion, although perspective-taking interventions are commonly used as part of antibias programs (Stephan & Stephan, 2001), the present research underscores the fact that these interventions can operate in a number of different ways and that different types of interventions (such as perspective taking and emphasizing common group membership) can produce their effects through common mechanisms. Thus, a conceptual understanding of the processes underlying prejudice and prejudice reduction can significantly advance practical efforts to combat bias.

NOTES

1. We also explored Internal Motivation to Respond Without Prejudice (Plant & Devine, 1998) as a proximate predictor of prejudice reduction. Tests of a path model in which perspective taking influences feelings of injustice, which affects internal motivation to respond without prejudice, which ultimately predicts prejudice reduction, indicated that all of these paths were significant and the model was a good fit for the data, $\chi^2(df=3, N=66) = 7.362, p = .061$. However, whereas one alternative fit index indicated good fit (Goodness-of-Fit Index [GFI] = .951), other indices did not support the adequacy of the fit (Adjusted Goodness-of-Fit Index [AGFI] = .837; root mean square error of approximation [RMSEA] = .150, 90% confidence interval, .000 to .290).

2. When Internal Motivation to Respond Without Prejudice was examined as a proximate predictor of prejudice reduction in Study 2, all of the paths in the sequence were significant, but the model was not a good fit for the data, $\chi^2(df=3, N=66) = 13.848, p = .003$. One alternative fit index indicated good fit (GFI = .938); other indices did not sup-

port the adequacy of the fit (AGFI = .794; RMSEA = .191, 90% confidence interval, .097 to .289).

REFERENCES

- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including the other in the self. *Journal of Personality and Social Psychology, 60*, 241-253.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Lawrence Erlbaum.
- Batson, C. D., Chang, J., Orr, R., & Rowland, J. (2002). Empathy, attitudes and action: Can feeling for a member of a stigmatized group motivate one to help the group? *Personality and Social Psychology Bulletin, 28*, 1656-1666.
- Batson, C. D., Early, S., & Salvarani, G. (1997). Perspective taking: Imagining how another feels versus imagining how you would feel. *Personality and Social Psychology Bulletin, 23*, 751-758.
- Batson, C. D., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H. J., Mitchener, E. C., Bednar, L. L., et al. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology, 72*, 105-118.
- Brigham, J. C. (1993). College students' racial attitudes. *Journal of Applied Social Psychology, 23*, 1933-1967.
- Cialdini, R. B., Brown, S. L., Lewis, B. P., Luce, C., & Neuberg, S. L. (1997). Reinterpreting the empathy-altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology, 73*, 481-494.
- Clay-Warner, J. (2001). Perceiving procedural injustice: The effects of group membership and status. *Social Psychology Quarterly, 64*, 224-238.
- Clayton, S., & Opatow, S. (2003). Justice and identity: Changing perspectives on what is fair. *Personality and Social Psychology Review, 74*, 298-310.
- Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effects of perspective taking on the cognitive representation of persons: A merging of self and other. *Journal of Personality and Social Psychology, 70*, 713-726.
- Dovidio, J. F., Allen, J. L., & Schroeder, D. A. (1990). Specificity of empathy-induced helping: Evidence for altruistic motivation. *Journal of Personality and Social Psychology, 59*, 249-260.
- Dovidio, J. F., Brigham, J. C., Johnson, B. T., & Gaertner, S. L. (1996). Stereotyping, prejudice, and discrimination: Another look. In C. N. Macrae, C. Stangor, & M. Hewstone (Eds.), *Stereotypes and stereotyping* (pp. 276-319). New York: Guilford.
- Esses, V. M., & Dovidio, J. F. (2002). The role of emotions in determining willingness to engage in intergroup contact. *Personality and Social Psychology Bulletin, 28*, 1202-1214.
- Finlay, K. A., & Stephan, W. G. (2000). Improving intergroup relations: The effects of empathy on racial attitudes. *Journal of Applied Social Psychology, 30*, 1720-1737.
- Freedman, L. S., & Schatzkin, A. (1992). Sample size for studying intermediate endpoints within intervention trials of observational studies. *American Journal of Epidemiology, 136*, 1148-1159.
- Gaertner, S. L., & Dovidio, J. F. (2000). *Reducing intergroup bias: The Common Ingroup Identity Model*. Philadelphia: Psychology Press.
- Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 4, pp. 1-26). New York: John Wiley.
- Gaertner, S. L., Dovidio, J. F., Rust, M. C., Nier, J., Banker, B., Ward, C. M., et al. (1999). Reducing intergroup bias: Elements of intergroup cooperation. *Journal of Personality and Social Psychology, 76*, 388-402.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology, 78*, 708-724.
- Hogg, M. A., & Hains, S. C. (1996). Intergroup relations and group solidarity: Effects of group identification and social beliefs on depersonalized attraction. *Journal of Personality and Social Psychology, 70*, 295-309.
- Krehbiel, P. J., & Cropanzano, R. (2000). Procedural justice, outcome favorability, and emotion. *Social Justice Research, 13*, 339-360.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variables. *Psychological Methods, 7*, 83-104.
- Nier, J. A., Gaertner, S. L., Dovidio, J. F., Banker, B. S., & Ward, C. M. (2001). Changing interracial evaluations and behavior: The effects of a common group identity. *Group Processes and Intergroup Relations, 4*, 299-316.
- Onorato, R. S., & Turner, J. C. (2001). The "I," the "me," and the "us": The psychological group and self-concept maintenance and change. In C. Sedikides & M. B. Brewer (Eds.), *Individual self, relational self, and collective self* (pp. 147-170). Philadelphia: Psychology Press.
- Opatow, S. (1990). Moral exclusion and injustice: An introduction. *Journal of Social Issues, 46*(1), 1-20.
- Plant, E. A., & Devine, P. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology, 75*, 811-832.
- Smith, E. R., & Henry, S. (1996). An ingroup becomes part of the self: Response time evidence. *Personality and Social Psychology Bulletin, 22*, 635-642.
- Smith, H. J., & Tyler, T. R. (1996). Justice and power: When will justice concerns encourage the advantaged to support policies which redistribute economic resources and the disadvantaged to willingly obey the law? *European Journal of Social Psychology, 26*, 171-200.
- Stephan, W. G., & Finlay, K. (1999). The role of empathy in improving intergroup relations. *Journal of Social Issues, 55*, 729-743.
- Stephan, W. G., & Stephan, C. W. (2001). *Improving intergroup relations*. Thousand Oaks, CA: Sage.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-48). Monterey, CA: Brooks/Cole.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Basil Blackwell.
- Tyler, T. R., & Blader, S. L. (2003). The Group Engagement Model: Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review, 7*, 349-361.
- Vescio, T. K., Sechrist, G. B., & Paolucci, M. P. (2003). Perspective taking and prejudice reduction: The mediational role of empathy arousal and situational attributions. *European Journal of Social Psychology, 33*, 455-472.

Received September 29, 2003

Revision accepted February 18, 2004