
The Antecedents and Implications of Interracial Anxiety

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Drawing on previous theorizing from both the prejudice and social anxiety literatures, a model of the antecedents and implications of intergroup anxiety is offered. It is argued that a lack of positive previous experiences with outgroup members creates negative expectancies about interracial interactions, which result in intergroup anxiety. This anxiety is posited to result in heightened hostility toward outgroup members and a desire to avoid interacting with outgroup members. Study 1 examined White participants' responses to interacting with Black people using a range of self-report measures; the associations between these responses supported the relationships outlined in the model. Study 2 explored White participants' responses to an anticipated interaction with a Black person or a White person. The findings revealed that high levels of anxiety about an interaction with a Black person, but not a White person, were associated with a lower likelihood of returning for the interaction.

Keywords: *intergroup anxiety; prejudice; interracial interaction; avoidance*

In our multicultural society, interracial interactions are all too often strained and lead to intergroup tension. As a result, it is critical to develop a deeper understanding of interracial dynamics and the factors that shape the course of these interactions. Much theorizing on intergroup relations has pointed to the importance of intergroup anxiety in determining people's responses toward outgroup members (e.g., W. G. Stephan & Stephan, 1985). Intergroup anxiety involves feelings of tension and distress that result when interacting with a person from a different social group. Drawing on previous theorizing from both the prejudice and social anxiety literatures, the current work offers a model of the antecedents and implications of intergroup anxiety. Specifically, it is argued that a lack of positive previous experiences with

outgroup members creates negative expectations about the course of interracial interactions, which results in intergroup anxiety. This anxiety is posited to result in heightened hostility toward outgroup members and a desire to avoid interacting with outgroup members. Two studies were conducted to examine these proposed relationships. Below, the relevant work from the intergroup anxiety and social anxiety literatures is briefly reviewed and the basic tenets of the model are delineated.

Intergroup Anxiety

In their influential model of intergroup relations, W. G. Stephan and Stephan (1985) noted the importance of intergroup anxiety in determining responses to outgroup members. They argued that intergroup anxiety results from the anticipation of negative consequences resulting from intergroup interactions. According to the model, people's expectations regarding negative consequences derive from their previous experience with outgroup members and their thoughts and beliefs about outgroup members. W. G. Stephan and Stephan (1985) argued that intergroup anxiety has a variety of negative behavioral, cognitive, and affective implications. Of particular concern to the current work, intergroup anxiety was maintained to result in the avoid-

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ance of intergroup interactions and hostility toward outgroup members.

There is abundant evidence supporting elements of Stephan and Stephan's theoretical model. For example, multiple researchers have found that intergroup contact, particularly the quality of previous contact with outgroup members, is strongly associated with intergroup anxiety (e.g., Britt, Boniecki, Vesio, Biernat, & Brown, 1996; Greenland & Brown, 1999; Islam & Hewstone, 1993; G. W. Stephan, Diaz-Loving, & Duran, 2000; W. G. Stephan & Stephan, 1989). Furthermore, intergroup anxiety is associated with a variety of negative responses to outgroup members, such as intergroup bias, perceived outgroup homogeneity, and negative attitudes toward outgroup members (e.g., Devine, Evett, & Vasquez-Suson, 1996; Greenland & Brown, 1999; Islam & Hewstone, 1993; C. W. Stephan, Stephan, Demitrakis, Yamada, & Clason, 2000; G. W. Stephan, Diaz-Loving, et al., 2000). Supporting a link between anxiety and avoidance of interracial interactions, Ickes (1984) demonstrated that White people who were predisposed to avoid interactions with Black people responded with fewer affiliative behaviors and higher levels of anxiety when interacting with Black people.

Intergroup anxiety also has played a central role in theorizing about modern forms of racism. For example, in their theory of aversive racism, Gaertner and Dovidio (1986, 2000) pointed to the importance of anxiety-related affect in responses to outgroup members. They argued that many White people's responses to Black people are not based on hostility but instead reflect discomfort and uneasiness. This anxiety results, in part, from concerns over presenting a positive, nonprejudiced self-image in interracial interactions. They argued that this anxiety often results in avoidance of outgroup members. Across many studies, Gaertner, Dovidio, and their colleagues have demonstrated that when White people can attribute their behavior to factors other than race, they avoid interactions with Black people (see Gaertner & Dovidio, 2000, for a review). Katz, Hass, and their colleagues' (Katz & Hass, 1988; Katz, Wackenhut, & Hass, 1986) racial ambivalence approach to prejudice provides an explanation of why anxiety may result in hostility toward outgroup members. According to their approach, tension and discomfort arise from simultaneously possessing pro- and anti-Black attitudes. This tension leads to behavioral instability (sometimes favoring the pro and other times the anti component of racial attitudes) and extreme negative or positive responses.

To date, the work on intergroup anxiety has identified many of the likely causes and consequences of intergroup anxiety. However, there are aspects of these theoretical approaches that need to be clarified. For example, although this work asserts a link between anxiety

and avoidance, often, studies of avoidance do not directly measure anxiety (but see Ickes, 1984), and the proposition that anxiety causes avoidance has not been directly tested. Furthermore, although this work has identified the importance of previous contact in determining people's intergroup anxiety, the reason why contact influences anxiety remains unclear. Because intergroup anxiety involves an interpersonal interaction, considering the relevance of the broader literature on social anxiety concerning the causes of anxiety in interpersonal interactions may be helpful (Britt et al., 1996; Devine et al., 1996). Specifically, Schlenker and Leary (1982) proposed a model of social anxiety that explicitly outlines the factors that result in anxiety in social settings.

Social Anxiety

Schlenker and Leary (1982) defined social anxiety as responses reflecting apprehension about negative evaluation in social situations. They posited that social anxiety occurs when people are motivated to make a particular impression in a social interaction but doubt that they will succeed (also see Leary, 1983; Leary & Atherton, 1986). Schlenker and Leary maintained that the severity of social anxiety is directly and inversely related to the extent that people anticipate receiving the desired reaction from others (i.e., their outcome expectancies). Thus, to the extent that people anticipate difficulty in making the desired impression in a social interaction, they should experience social anxiety. People are likely to have negative outcome expectancies if they either believe they do not possess the skills necessary to make the desired impression or expect that their efforts to make the desired impression will not be received well by others. Schlenker and Leary argued that "difficulties arise when guides to self-presentation—such as situational cues, information about others' preferences, and familiarity with accepted ways of responding—are absent, ambiguous, or contradictory" (p. 650).

According to the tenets of Schlenker and Leary's (1982) theory, interracial interactions carry the potential for intense social anxiety. Interracial interactions are likely to create concern both with appearing prejudiced to others and being socially incompetent. As a result, people are likely to be highly motivated to create a positive impression when interacting with a person from another ethnic group. In addition, it is likely that many people (particularly Whites) have far less experience with people from other ethnic groups than with people from their own ethnic group. Those with limited experience with outgroup members may be unsure of what behavior will be positively received by outgroup members. That is, they are unlikely to have developed clear guides to self-presentation in interracial interactions,

which is likely to result in negative outcome expectancies. These negative outcome expectancies are likely to result in anxiety in interracial interactions (Britt et al., 1996; Devine et al., 1996).

In addition, consistent with the work on intergroup anxiety, Schlenker and Leary (1982) argued that social anxiety is likely to result in withdrawal from anxiety-eliciting situations or even the avoidance of such situations. They argued that avoidance of social situations has multiple negative implications for the anxious individual. For example, avoidance hampers the development of the interpersonal skills likely to reduce anxiety. Certainly, people who avoid interracial interactions because they do not view themselves as possessing the skills necessary to create a good impression are thwarting opportunities to develop these skills. When avoidance is impossible, social anxiety is apt to result in inadequate social control (e.g., nervous fidgety responses) that can result in a negative interaction and confirm the anxious individual's perception of his or her intergroup incompetence. Furthermore, such nervous behaviors in interracial interactions have the potential to be interpreted as displays of underlying prejudice regardless of the person's intention or attitude (Devine et al., 1996).

The Proposed Model

By considering the implications of the previous work on intergroup anxiety and social anxiety, a more complete picture of interracial interactions emerges. The extant work in intergroup anxiety demonstrates the importance of intergroup contact, particularly the quality of previous intergroup contact in determining anxiety in intergroup settings. Specifically, those who have positive previous contact with outgroup members are less likely to experience intergroup anxiety. However, Schlenker and Leary's work on social anxiety may help to clarify why contact influences anxiety. We argue that positive previous experiences are likely to improve outcome expectancies by both increasing perceived ability to present a desired impression and decreasing uncertainty for how to make a desired impression (see Britt et al., 1996, for a similar argument).¹ These outcome expectancies in turn directly determine people's level of anxiety regarding interracial interactions.

The reviewed work also provides some insight into the likely consequences of interracial anxiety. The literatures on intergroup anxiety and social anxiety each suggest that when people experience anxiety in social settings, they may avoid relevant social situations. In addition, according to W. G. Stephan and Stephan's (1985) theory, intergroup anxiety has the potential to result in hostility toward outgroup members (also see Katz et al., 1986).

The synthesis of the previous work on intergroup anxiety and social anxiety leads to a specific set of predictions regarding White people's experiences with interactions with Black people. Specifically, more positive previous contact with Black people is expected to be associated with more positive outcome expectancies regarding interactions with Black people. In addition, both more positive previous contact and more positive outcome expectancies should be related to lower levels of anxiety regarding interacting with Black people. However, based on the proposed model, outcome expectancies are expected to mediate the influence of previous contact on anxiety. That is, White people with a large amount of positive previous contact with Black people should have more positive outcome expectancies, which in turn would result in less anxiety regarding interracial interactions. Positive previous contact, more positive outcome expectancies, and lower levels of anxiety were each predicted to result in low levels of hostility in interactions with Black people as well as a minimal interest in avoiding interactions with Black people. However, anxiety was expected to mediate the influence of previous contact and outcome expectancies on these outcome measures.

Across two studies, we tested these predictions. Study 1 was a self-report questionnaire study in which we assessed the various constructs from the model (e.g., quantity and quality of previous contact, outcome expectancies, anxiety, hostility, avoidance). By examining the associations between these constructs, the proposed relationships among them could be examined. Study 2 explored the role of intergroup anxiety in participants' responses to an anticipated interaction with a Black person or a White person. This study examined the prediction that intergroup anxiety would be related to the anxiety experienced when anticipating a specific interaction with a Black person but not a White person (also see Britt et al., 1996). In addition, the effects of people's outcome expectancies and anxiety about the upcoming interaction on their decision to return at a later time to participate in the interaction were explored. Study 2 also tested the specific prediction that anxiety would mediate the effect of outcome expectancies on the decision to return for an interaction with a Black person.

STUDY 1

Method

PARTICIPANTS AND PROCEDURE

Respondents were 106 White introductory psychology students (60% women) who participated in exchange for course extra credit. Participants completed the questionnaire in group sessions of 8 to 15. The questionnaire consisted of 50 items that assessed the

quantity and quality of participants' previous contact with Black people, their outcome expectancies regarding interactions with Blacks, their anxiety resulting from such interactions, their desire to avoid interactions with Blacks, and their degree of hostility resulting from interacting with Blacks. Participants rated the items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Items assessing each construct were averaged to create indices. The items and reliability of each index can be found in the appendix.

For the quantity of previous contact, the index was created such that higher scores indicated more previous contact with Black people. The index for the quality of previous contact was created such that higher scores indicated more positive previous contact with Black people. Outcome expectancies were computed such that higher scores on the index reflected more negative expectancies regarding the likelihood of responding with prejudice in interactions with Black people. In addition, higher scores on the anxiety index reflected more anxiety resulting from interacting with Black people. For the avoidance index, higher scores indicated more of a desire to avoid interacting with Black people. Finally, the hostility index was computed such that higher scores reflected more hostility resulting from interactions with Black people. Initial examination of the avoidance and hostility indices revealed that they were highly correlated ($r = .83$). As a result, the indices were combined for the reported analyses.

Results

Overview of analyses. Participants' responses to the indices were analyzed using hierarchical regression. Analyses were conducted in three phases to test the specific predictions delineated in the model. In the first phase, we examined the implications of the amount and quality of previous contact with Black people for outcome expectancies regarding responding with prejudice in interactions with Black people. In the second phase, we examined the influence of the amount and quality of contact as well as outcome expectancies on participants' anxiety when interacting with Black people. In addition, these analyses permitted examination of the extent to which outcome expectancies mediated the influence of contact on intergroup anxiety. In the final phase, we examined the implications of contact, expectancies, and anxiety for participants' desire to avoid interactions with Black people and whether they would respond with hostility in such interactions. Furthermore, we examined whether anxiety mediated the influence of the other predictors on avoidance and hostility. The findings across the phases of analyses are summarized in Figure 1. After examining the predictions outlined in the model, some alternative possibilities are explored.

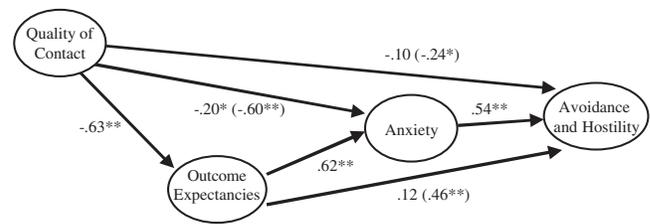


Figure 1 White people's responses to interactions with Black people (Study 1).

NOTE: Values in parentheses are the Betas for the relationships prior to the inclusion of the mediators.

* $p < .05$. ** $p < .005$.

Phase 1. The analysis of outcome expectancies indicated that more positive previous contact was related to more positive outcome expectancies regarding responding with prejudice in interactions with Black people, $F(1, 103) = 31.12$, $p < .001$. Of interest, the amount of previous contact was unrelated to outcome expectancies, $F(1, 103) = 1.92$, $p = .17$, $\beta = .16$.

Phase 2. For the analysis of anxiety resulting from interacting with Black people, expectancies were entered after the contact variables to examine whether outcome expectancies mediated the influence of contact on anxiety. The first step of the regression analysis revealed a significant effect of the quality of previous contact on anxiety, such that a greater amount of positive previous contact was associated with less anxiety in interactions with Black people, $F(1, 103) = 29.21$, $p < .001$. The amount of previous contact was unrelated to anxiety, $F < 1$.

The second step of the regression analysis revealed that participants' outcome expectancies were associated with anxiety, such that more positive outcome expectancies were associated with less anticipated anxiety in interactions with Black people, $F(1, 102) = 70.37$, $p < .001$. When outcome expectancies were included in the regression, the quality of previous contact was still a significant predictor of anxiety, although its influence was greatly reduced, $F(1, 102) = 4.36$, $p < .03$. A Sobel test, modified according to Baron and Kenny's (1986) suggestions, was conducted to determine whether outcome expectancies were a significant mediator of the relationship between the quality of previous contact and anxiety. This test indicated that, consistent with the model, outcome expectancies were significantly mediating the influence of positive previous contact on anxiety ($z = 5.03$, $p < .001$). It is worth noting that the second step of the regression accounted for 60% of the variance in anxiety scores.

Phase 3. To examine whether anxiety mediated the influence of contact and outcome expectancies on

avoidance and hostility, anxiety was entered in the second step of the regression, after the contact variables and outcome expectancies. The first step of the regression analysis revealed a significant effect of the quality of previous contact on avoidance and hostility, such that a greater amount of positive previous contact was associated with less of a desire to avoid interactions with Black people and less hostility when interacting with Black people, $F(1, 103) = 6.58, p < .02$. In addition, outcome expectancies were associated with avoidance and hostility, such that more negative outcome expectancies were associated with a heightened desire to avoid interactions with Black people and greater hostility when interacting with Black people, $F(1, 103) = 24.78, p < .001$.

The second step of the regression analysis revealed that participants' anticipated anxiety when interacting with Black people was associated with their avoidance and hostility. Specifically, higher levels of anxiety were associated with a heightened desire to avoid interactions with Black people and greater hostility when interacting with Black people, $F(1, 102) = 23.36, p < .001$. When anxiety was included in the regression, the quality of previous contact was no longer a significant predictor of avoidance and hostility, $F(1, 102) = 1.38, p = .24$. A modified Sobel test was conducted to determine whether anxiety was a significant mediator of the relationship between the quality of previous contact and avoidance and hostility. This test indicated that anxiety was a significant mediator of the influence of positive previous contact on avoidance and hostility ($z = -5.24, p < .001$). In addition, when anxiety was included in the analyses, outcome expectancies were no longer a significant predictor of avoidance and hostility, $F(1, 102) = 1.32, p = .25$. In addition, a modified Sobel test indicated that anxiety was a significant mediator of the relationship between the outcome expectancies and avoidance and hostility ($z = 4.93, p < .001$). The second step of the regression accounted for 49% of the variance in avoidance and hostility scores.

Examining alternative models. The previous analyses focused on the relationships outlined in the proposed model. However, it is also important to examine other potential relationships between the variables. For example, the model proposes and the data support the idea that outcome expectancies mediate the relationship between positive previous contact and intergroup anxiety. However, an alternative possibility would be that positive previous contact mediates the relationship between outcome expectancies and anxiety. Consistent with this possibility, the effect of outcome expectancies decreases somewhat when positive experience is included in the regression equation ($\beta = .75$ when expectancies is the sole predictor and $\beta = .62$ when positive previous contact

is included). However, the shift in the Beta for previous contact when expectancies were included (from $\beta = -.60$ to $\beta = -.20$) was 3 times larger than the shift for outcome expectancies. This suggests that the effect of outcome expectancies on the relationship between previous contact and anxiety was stronger than the effect of positive previous contact on the relationship between outcome expectancies and anxiety.

Although the current work focuses on predicting intergroup anxiety, one also could examine whether intergroup anxiety mediates the relationship between positive previous contact and outcome expectancies. Consistent with partial mediation, anxiety significantly reduces the relationship between positive previous contact and outcome expectancies ($z = 5.55, p < .001$). This suggests that part of the reason why the positivity of previous contact influences outcome expectancies is because it influences the level of intergroup anxiety. Together with findings regarding the mediation by outcome expectancies of the effect of contact on anxiety, these findings suggest that positive previous contact has a direct influence on both intergroup anxiety and outcome expectancies, which in turn, influence each other. In future work it will be important to examine these relationships experimentally or longitudinally to disentangle these relationships.

It is also possible to examine whether avoidance and hostility mediate the influence of outcome expectancies on anxiety. However, inconsistent with mediation, when avoidance and hostility are included in the model, outcome expectancies remains a strong, although slightly reduced, predictor of anxiety, $F(1, 103) = 53.77, p < .001, \beta = .52$. In addition, when avoidance and hostility are included in the regression predicting outcome expectancies, inconsistent with mediation, positive previous contact remains a highly significant predictor of outcome expectancies, $F(1, 103) = 11.27, p < .001, \beta = -.37$.

Discussion

The current study provided an initial test of the predictions resulting from the integration of previous research and theory on intergroup anxiety and social anxiety. The participants' responses across the measures were highly consistent with the predictions and provide support for the proposed model. White participants who reported more previous positive contact with Black people had more positive outcome expectancies for interactions with Black people. This finding is consistent with the argument that positive contact with outgroup members furnishes people with guides for their self-presentation in interracial interactions, leading them to anticipate more positive future interactions. Also as anticipated, the influence of contact on anxiety was partially medi-

ated by participants' outcome expectancies. This finding indicates that White people with high levels of positive previous contact with Blacks anticipated being less anxious in intergroup interactions, in part because their positive previous contact resulted in more positive outcome expectancies, which in turn decreased anxiety. Participants who were highly anxious about interacting with Black people were interested in avoiding such interactions and reported that interacting with Black people would make them feel hostile. Furthermore, anxiety mediated the influence of positive previous contact and outcome expectancies on avoidance and hostility.

Together, the findings from this first study were highly consistent with predictions derived from the model. However, analyses of alternative potential relationships indicated that intergroup anxiety partially mediated the relationship between positive previous contact and outcome expectancies. In addition, some caution should be taken when drawing conclusions from these findings, given that all of the responses in Study 1 were collected at the same point in time and were all self-reported responses to a hypothetical interaction. To address some of the limitations of Study 1, in Study 2, we examined affective and behavioral responses regarding an upcoming interracial interaction.

STUDY 2

In Study 2, White participants who had previously completed a measure of intergroup anxiety were led to believe that they would be interacting with a Black person or a White person. Prior to the interaction, participants' outcome expectancies and anxiety regarding the interaction were assessed (see Britt et al., 1996, for a similar approach). Participants were then told that there were technical difficulties with the lab equipment and that, as a result, the interaction would need to be postponed. The experimenter asked participants to return the following week for the interaction and had them pick a day and time, convenient to their schedule, when they could return to participate in the interaction. Interest centered on whether participants returned for the interaction.

By examining responses over time (e.g., the influence of anxiety on the decision to return a week later), we hoped to get a clearer idea of the causal relationships outlined in the proposed model. Furthermore, by examining participants' responses to an upcoming interaction as a function of the race of their interaction partner, we were able to examine the extent to which race was implicated in their responses and whether the relationships between the responses varied as a function of the race of partner.

Method

PARTICIPANTS AND PROCEDURE

Ninety introductory psychology students (57% women, 96% White) participated in exchange for extra credit. To assess participants' intergroup anxiety, similar to the approach used by Britt et al. (1996), participants completed a series of questions in a mass testing session several weeks prior to the experiment about their responses in interactions with Black people (e.g., "I get anxious when interacting with a Black person"; "I am confident that I can respond in a nonprejudiced manner toward Black people"). Participants responded to these items on a scale from 1 (*strongly disagree*) to 9 (*strongly agree*). Their responses were reverse-scored where necessary and averaged to create an intergroup anxiety score with higher scores indicating more intergroup anxiety ($\alpha = .71$).

Participants were invited into the lab and told they would be interacting with a person they had not met before. Each participant was told that to make sure that he or she did not know the interaction partner, the participant would exchange student identification cards with the interaction partner (participants had been instructed to bring their student identification card to the experimental session). The participant gave his or her identification card to the experimenter, who left the room and returned with a student identification card of either a Black student or a White student who was of the same sex as the participant. Black and White students who worked in the research lab donated the identification cards for use in the study.

After being told about the interaction and being shown the interaction partner's student identification card, the participant completed two questionnaires. The first questionnaire assessed the participant's expectations about the interaction and included items such as, "I am concerned that my interaction partner will not like me" and "I expect that it will be difficult to have a conversation with my interaction partner." Participants responded to the items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*), and responses across these five items were averaged to create an outcome expectancy index with higher scores indicating more negative outcome expectancies ($\alpha = .71$). Participants were then asked to indicate the extent to which each of 34 affect items, including 7 items assessing anxiety (e.g., nervous, anxious), applied to how they were feeling about the upcoming interaction on a scale that ranged from 1 (*does not apply at all*) to 7 (*applies very much*). Responses across the 7 items were averaged to create a pre-interaction anxiety index with higher scores indicating more anxiety ($\alpha = .88$).

After completing the questionnaires, the participant was told that the interaction could not take place imme-

diately due to equipment difficulties and he or she was asked to come back the following week to complete the interaction. The participant was allowed to pick a time that fit into his or her schedule so that most participants would be able to return. Of interest was whether participants actually returned for the interaction.² Choosing not to return for the interaction would be a way to avoid the interaction all together. Participants who returned for the interaction were told about the purpose of the study, thanked for their time, and given an additional extra credit point.

Results

As a first step in analyzing the responses from the current study, a regression analysis was conducted to examine participants' anxiety in response to the upcoming interaction. We were interested in whether intergroup anxiety and outcome expectancies predicted pre-interaction anxiety and whether the influence of intergroup anxiety and outcome expectancies varied as a function of the race of the partner. In general, people with more negative expectancies regarding the interaction were expected to respond with higher levels of pre-interaction anxiety. Based on the findings in the social anxiety literature (e.g., Schlenker & Leary, 1982), it was likely that the outcome expectancies would predict pre-interaction anxiety in both the White and Black interaction partner conditions. As anticipated, outcome expectancies were strongly related to pre-interaction anxiety such that participants with more negative outcome expectancies reported more anxiety about the upcoming interaction, $F(1, 64) = 31.31, p < .001, (\beta = .57)$. In addition, race did not moderate the effect of outcome expectancies on pre-interaction anxiety, $F < 1$.

In contrast, we anticipated that participants' intergroup anxiety would interact with the race of the partner to influence their pre-interaction anxiety. Specifically, participants' intergroup anxiety was expected to predict their pre-interaction anxiety when they anticipated interacting with a Black partner but not when they anticipated interacting with a White partner (also see Britt et al., 1996). Consistent with expectations, there was a significant interaction between race of partner and intergroup anxiety, $F(1, 61) = 4.02, p < .05, \beta = .25$. For participants who anticipated interacting with a White partner, intergroup anxiety was unrelated to their pre-interaction anxiety, $F(1, 30) = 1.48, p = .23$. In contrast, for participants who anticipated interacting with a Black partner, higher levels of intergroup anxiety were associated with higher levels of anxiety in response to the interaction, $F(1, 35) = 7.09, p < .02, \beta = .41$. This analysis revealed no other significant main effects or interactions.

It also was possible that participants' intergroup anxiety would predict their outcome expectancies when expecting to interact with a Black person. However, the proposed model posits that the relationship between intergroup anxiety and outcome expectancies tends to work in the opposite direction (i.e., outcome expectancies are argued to predict intergroup anxiety). Therefore, it was not wholly surprising that a regression analysis predicting outcome expectancies from intergroup anxiety, race, and their interaction did not reveal an effect of intergroup anxiety alone or in combination with race of partner, $F_s < 1$.

We next conducted a logistic regression examining whether participants returned for the interaction as a function of the race of partner, intergroup anxiety, outcome expectancies, and pre-interaction anxiety. It is worth noting that, overall, about half (51%) of the participants returned for the interaction and were equally likely to return for the interaction whether their anticipated partner was Black (57% return) or White (44% return), $\text{Wald}(1, 63) = .31, p = .58$. However, the analysis revealed a main effect of outcome expectancies, $\text{Wald}(1, 63) = 3.97, p < .05 (OR = .48)$, such that regardless of the race of their partner, participants with negative outcome expectancies were less likely to return for the interaction than those with positive outcome expectancies. The analysis also revealed an interaction between pre-interaction anxiety and race of the interaction partner, $\text{Wald}(1, 57) = 6.83, p < .01 (OR = .10)$. For participants who anticipated interacting with a White person, pre-interaction anxiety was unrelated to returning for the interaction, $\text{Wald}(1, 30) < 1$. In contrast, for participants expecting to interact with a Black person, pre-interaction anxiety was strongly related to returning, such that anxious participants were far less likely to return for the interaction than those less anxious, $\text{Wald}(1, 35) = 7.14, p < .008 (OR = .25)$.

The previous analyses indicate that when participants anticipated interacting with a Black partner, outcome expectancies and pre-interaction anxiety both predicted whether they would return for the interaction. However, based on the proposed model, anxiety should mediate the influence of outcome expectancies on avoidance behavior. Consistent with the requirements for mediation (Baron & Kenny, 1986), negative expectancies were strongly associated with pre-interaction anxiety, $F(1, 35) = 15.59, p < .001, \beta = .58$. To test for the other requirements of mediation, we conducted an analysis of participants' tendency to return for participants who anticipated interacting with a Black person. Outcome expectancies were entered in the first step of the regression and participants' anxiety regarding the interaction was entered in the second step of the regression. The first step of the regression analysis revealed a significant effect of outcome expectancies such that participants with more neg-

ative outcome expectancies were less likely to return for the interaction as those with more positive outcome expectancies, $Wald(1, 35) = 5.28, p < .03$ ($OR = .31$).

The second step of the regression analysis revealed a significant effect of pre-interaction anxiety, $Wald(1, 34) = 4.87, p < .03$ ($OR = .26$), such that participants who were more anxious about the interaction were less likely to return for the interaction than those who were less anxious about the interaction. When pre-interaction anxiety was included in the analysis, outcome expectancies were no longer a significant predictor of whether participants returned for the interaction, $Wald(1, 34) = 1.47, p = .23$. A modified Sobel test indicated that pre-interaction anxiety was a significant mediator of the effect of outcome expectancies on whether participants returned for the interaction ($z = -2.25, p < .03$). That is, participants with more negative outcome expectancies were more anxious about the upcoming interracial interaction and this anxiety resulted in their tendency not to return for the interaction.

Discussion

The findings from the current work indicated that participants who scored higher on our measure of intergroup anxiety tended to report higher levels of pre-interaction anxiety when anticipating an interaction with a Black person. Not surprisingly, level of intergroup anxiety was unrelated to pre-interaction anxiety when participants anticipated interacting with a White person. In addition, consistent with Schlenker and Leary's (1982) theory of social anxiety, regardless of the race of the interaction partner, participants who had negative outcome expectancies were more anxious about the interaction and were less likely to return for the interaction than those with more positive outcome expectancies. When participants anticipated interacting with a Black person, those who were more anxious prior to the interaction were less likely to return for the interaction. In addition, this pre-interaction anxiety mediated the effect of outcome expectancies on the likelihood of returning for the interaction. The findings from this study provide additional support for the proposed model and indicate that the tendency to avoid interracial interactions is strongly influenced by the anxiety people experience in response to such interactions.

It was somewhat surprising that when participants anticipated interacting with a White person, their anxiety regarding the interaction was unrelated to their tendency to return for the interaction. There are a couple of reasons why this may have occurred in the current work. First, the lack of an influence of anxiety on avoidance in the White interaction partner condition may be due to the fact that participants in the current work were not selected based on social anxiety. It is possible that rela-

tively few undergraduate students experience the degree of social anxiety that would result in avoiding interactions with other White people, a relatively extreme disaffiliative behavior (Schlenker & Leary, 1982). For White students at the University of Wisconsin, Madison, avoiding interactions with other White people would dramatically limit their social contact. Those students who do experience a sufficiently high degree of social anxiety to avoid ingroup interactions would be unlikely to choose to participate in a psychology experiment. Second, it is likely that interacting with a White person is not a particularly salient experience for the participants in our study. Therefore, the pre-interaction anxiety reported by participants in the White partner condition may have reflected other concerns (e.g., upcoming exams, social problems) and may have been unlikely to persist to influence their decision to return a week later. In contrast, because interacting with a Black person is a less common and more salient experience for most of our participants than interacting with a White person, it may have had a stronger influence on their assessment of their anxiety and this anxiety may have been more likely to persist and influence their decision whether to return.

The current work provides support for previous theorizing, which has argued for a relationship between intergroup anxiety and avoidance of outgroup members (e.g., W. G. Stephan & Stephan, 1985) by examining whether anxiety resulting from an intergroup interaction is related to the decision to return for the interaction. Although previous theorizing has posited that intergroup anxiety results in avoidance behavior, the current work provided support for this causal relationship and demonstrated that White participants who were highly anxious about an upcoming interaction with a Black person were less likely to return for this interaction the following week.

GENERAL DISCUSSION

A major goal of the present work was to examine both the antecedents and consequences of intergroup anxiety. Integrating previous research and theory on intergroup anxiety and social anxiety, we proposed a model suggesting that people with few positive previous experiences with outgroup members lack clear guides for their self-presentation in interracial interactions, resulting in negative expectations about future interactions. The model suggests that negative outcome expectancies about the course of interracial interactions results in anxiety regarding interracial interactions. Furthermore, according to the model, this anxiety leads to hostility toward outgroup members and avoidance of interactions with outgroup members. The results of two studies

were consistent with the relationships outlined in the proposed model.

For example, the findings from Study 1 demonstrated that, consistent with previous findings (e.g., Britt et al., 1996; Greenland & Brown, 1999; Islam & Hewstone, 1993; C. W. Stephan, Stephan, et al., 2000; W. G. Stephan & Stephan, 1989), the quality of previous contact with outgroup members was associated with intergroup anxiety. However, in the current work, the influence of positive previous contact on anxiety was explained, in part, by people's outcome expectancies. Participants in Study 1 with positive previous contact had positive expectations about the course of interracial interactions and these positive outcome expectancies were associated with low levels of anxiety in interracial interactions. These findings indicate that positive experiences may decrease intergroup anxiety because they result in more positive expectations regarding intergroup interactions.

It is also worth noting that across both studies, participants' outcome expectancies were associated with their anxiety. For example, in Study 2, White participants with negative expectancies about an upcoming interaction with a Black person reported experiencing more anxiety regarding the interaction. These findings illustrate the importance of examining people's expectancies regarding interracial interactions and indicate that Schlenker and Leary's (1982) theorizing about the role of outcome expectancies in determining social anxiety may extend to interracial interactions (see also Devine et al., 1996). However, because outcome expectancies and anxiety were measured at the same time in both studies, it will be important to examine these relationships using a longitudinal approach or an experimental approach where these factors are manipulated to establish the direction of the relationship between these responses.

By understanding the antecedents of intergroup anxiety, it may be possible to create theoretically driven interventions to reduce intergroup anxiety. Specifically, the current model indicates that experiences that improve people's outcome expectancies may help reduce the experience of intergroup anxiety. For example, providing people with positive experiences with outgroup members may help them to develop skills and confidence that will improve their outcome expectancies and, thereby, reduce their levels of intergroup anxiety. A similar approach has been successful in the treatment of shyness. Montgomery and Haemmerlie (1986) found that when shy men and women had a series of interactions with members of the opposite sex (actually confederates), which were biased to be positive, their shyness was reduced as long as they attributed the successful interactions to their own behavior. If people who are highly anxious regarding intergroup interactions are provided with a series of positive intergroup interac-

tions, it may lead them to anticipate that future interactions also will be positive and this may reduce their anxiety. Furthermore, decreasing people's anxiety in intergroup interactions may actually reduce awkward, stilted behaviors, which would improve the quality of these interactions for all involved and reinforce the positive outcome expectancies.

The findings across both studies also supported the argument that anxiety regarding interracial interactions is associated with avoidance of such interactions and, in Study 1, hostility regarding interracial interactions. In addition, in Study 2, anxiety regarding an upcoming interracial interaction resulted in people being less likely to participate in the interaction. This finding is important because it establishes that, consistent with the model and previous theorizing (e.g., Gaertner & Dovidio, 2000; Schlenker & Leary, 1982; W. G. Stephan & Stephan, 1985), intergroup anxiety actually creates the tendency to avoid interracial interactions. The fact that those who experience anxiety regarding interracial interactions are more likely to avoid such interactions is particularly problematic for the likelihood of improving intergroup relations. Consider that in both of the current studies, those who had negative expectancies were more likely to experience intergroup anxiety. If anxiety results in avoidance of interracial interactions, then the anxious individual is highly unlikely to have positive experiences with outgroup members and develop the interpersonal skills that may make future anxiety less likely. Therefore, interracial anxiety and the resulting avoidance of interracial interactions may create a vicious cycle whereby the avoidance following from intergroup anxiety is likely to sustain and perhaps even reinforce the anxiety.

Although the current work examined participants' decisions to avoid an interaction all together, it also seems likely that intergroup anxiety can result in other types of avoidance behaviors in ongoing interactions (e.g., reduced eye contact, greater interpersonal distance, speech errors) (e.g., Devine et al., 1996; Schlenker & Leary, 1982; Word, Zanna, & Cooper, 1974). These types of behaviors are likely to have negative implications for the quality of intergroup interactions and may strengthen negative expectancies about future intergroup interactions. It will be important for future work to examine the implications of intergroup anxiety for these other types of avoidance behavior.

Individual Differences and Intergroup Anxiety

Although the current work provides some insight into the experience of anxiety in intergroup interactions, it does not address whether there are individual differences that may illuminate *who* is likely to experience intergroup anxiety. Work by Devine and her colleagues

(1996) indicates that people's attitudes toward outgroup members may influence the level and implications of intergroup anxiety. They found that heterosexual people's level of prejudice toward homosexuals was related to their outcome expectancies, anxiety, and hostility regarding interactions with homosexuals. Specifically, higher levels of prejudice were associated with more negative outcome expectancies, higher levels of anxiety, and more hostility. Whereas high-prejudice people's anxiety was associated with hostility regarding interactions with outgroup members, low-prejudice people's anxiety was unrelated to hostility. This finding indicates that people's attitudes toward outgroup members may moderate the influence of their intergroup anxiety on hostility. In addition, recent work by Dovidio, Kawakami, and Gaertner (2002) demonstrates that people's level of explicit prejudice, as well as their level of implicit prejudice, has implications for their behavior in interracial interactions.

Furthermore, Schlenker and Leary (1982) argued that motivation to create a positive impression heightens anxiety in social settings. This would suggest that in interracial interactions, a strong motivation to respond without prejudice would heighten anxiety. However, recent work examining the source of people's motivation to respond without prejudice indicates that it is important to consider not only whether a person is motivated to respond without prejudice but also the reasons underlying this motivation. Plant and Devine (1998) demonstrated that White people can be motivated to respond without prejudice toward Black people for internal (personal) and external (normative) reasons. Internal motivation reflects the desire to respond without prejudice because doing so is an integral part of the self-concept. External motivation reflects the desire to respond without prejudice for fear of punishment from others if one were to respond with prejudice. Plant and Devine developed separate scales of internal and external motivation to respond without prejudice toward Blacks (the IMS and EMS, respectively). These scales are largely independent. Thus, White people can be motivated to respond without prejudice toward Black people primarily for internal reasons, primarily for external reasons, for both sets of reasons, or for neither reason.

By considering the source of people's motivation to respond without prejudice, it may be possible to determine who is likely to experience intergroup anxiety and for whom such anxiety is likely to result in avoidance and hostility. Plant and Devine have found that the source of White people's motivation to respond without prejudice toward Black people has implications for their interest in participating in interracial interactions and their reactions to such interactions (Plant & Devine, 1998, 2000, 2003). For example, even though highly externally moti-

vated people (high EMS) are focused on avoiding bias in interracial interactions (Plant & Devine, 2003), they report that they are more likely to respond with bias than low EMS people (Plant & Devine, 1998, 2000). In addition, high EMS people report that failure to meet the nonprejudiced normative standard results in threatened and anxious affect (Plant & Devine, 1998). Drawing on Schlenker and Leary's approach, these findings suggest that high EMS people have negative outcome expectancies (i.e., they expect to respond with bias even though they are motivated to avoid biased responses) that are associated with feelings of anxiety in intergroup settings.

However, internal motivation to respond without prejudice is associated with a focus on approaching nonbiased responding in interracial interactions, resulting in approach-related goals and strategies (e.g., smile, be friendly) (Plant & Devine, 2003). In addition, when high IMS people are made aware of a subtle bias, they actively pursue prejudice reduction strategies (Plant & Devine, 2003). This finding suggests that those internally motivated people who are likely to experience anxiety in interracial interactions (i.e., high IMS people who are highly externally motivated) should still actively pursue a positive interaction and, therefore, are unlikely to experience hostility or avoid interracial interactions. As a result, anxiety may only result in avoidance among people who are not personally motivated to respond without prejudice.

It will be important for future work to address whether attitudinal and motivational factors influence people's experience of intergroup anxiety and moderate the implications of anxiety for avoidance and hostility regarding interracial interactions. A more complete understanding of the factors that affect and interact with intergroup anxiety would further illuminate the processes involved in interracial interactions and facilitate the development of theoretically driven interventions to improve the course of these interactions.

Conclusion

Research and theory exploring both intergroup relations and modern forms of racism have highlighted the importance of intergroup anxiety in determining people's responses toward outgroup members (e.g., Britt et al., 1996; Gaertner & Dovidio, 2000; Islam & Hewstone, 1993; Katz et al., 1986; W. G. Stephan & Stephan, 1985). Our hope is that the current work on intergroup anxiety will further our understanding of the factors that shape the course of interracial interactions. The findings in the current studies clarify the factors that contribute to White people's anxiety in interactions with Black people and the implications of this anxiety for White people's responses regarding interactions with Black people. However, it is important to note that the current

work focuses only on White people's responses to interactions with Black people. In our ethnically diverse society, there are many other types of interpersonal, intergroup interactions and future work should explore whether the current model generalizes to these other ingroup/outgroup interactions. Furthermore, in understanding intergroup interactions, it is critical to consider the experiences of both majority and minority group members (see Devine et al., 1996). Therefore, it will be important to examine whether similar factors influence the experience of anxiety for minority group members in interracial interactions and whether anxiety has similar consequences for minority group members. A more complete understanding of both majority and minority group members' experiences with interracial interactions will leave us better prepared to take on the challenges involved in exploring dynamic interracial interactions.

APPENDIX

Amount of Previous Experience With Black People ($\alpha = .77$)

1. In the past, I have interacted with Black people in many areas of my life (e.g., school, friends, work, clubs).
2. The neighborhood(s) I grew up in had mostly White students. (R)
3. The high school I attended had mostly White students. (R)
4. In the past, I have rarely interacted with Black people. (R)

Positive Previous Experience With Black People ($\alpha = .73$)

1. In the past, my experiences with Black people have been pleasant.
2. Over the course of my life, I have had many Black friends.
3. I have had many positive experiences with Black people.

Outcome Expectancies ($\alpha = .79$)

1. I am confident that stereotypes don't affect how I interact with a Black person. (R)
2. Even if we hadn't met before, a Black person would expect me to be prejudiced.
3. When interacting with a Black person, he or she would see me as prejudiced no matter what I did.
4. When interacting with a Black person, I would be unsure how to act in order to show him or her that I am not prejudiced.
5. Sometimes stereotypes come to my mind when interacting with a Black person, even when I wish they wouldn't.
6. If I were interacting with a Black person, regardless of my behavior he or she would interpret my behavior as prejudiced.
7. When interacting with a Black person, I would know what to say in order to come across as nonprejudiced. (R)

8. When interacting with a Black person, I would imagine that he or she would be watching my behavior closely for prejudice.
9. Black people do not look for prejudice in White people's behavior. (R)
10. I am confident that I can respond without prejudice when interacting with a Black person. (R)
11. Sometimes Black people view normal behavior of Whites as prejudiced.

Intergroup Anxiety ($\alpha = .91$)

1. I would feel awkward when interacting with a Black person.
2. I would feel uncomfortable when interacting with a Black person.
3. When interacting with a Black person, I would feel relaxed. (R)
4. When interacting with a Black person, I would feel nervous.

Avoidance ($\alpha = .86$)

1. If I had a choice, I would rather not interact with a Black person.
2. If I can avoid interacting with Black people, I do.
3. I like interacting with Black people. (R)
4. I would look forward to interacting with Black people. (R)
5. I would want to avoid interacting with a Black person.

Hostility ($\alpha = .81$)

1. I would find interacting with a Black person annoying.
2. I would be angry if I had to interact with a Black person.
3. I would find interacting with a Black person frustrating.
4. I would feel hostile when interacting with a Black person.
5. Interacting with a Black person would be irritating.

NOTE: R = reverse scored.

NOTES

1. Britt et al. (1996) also argued that people's outcome expectancies are likely to be related to their intergroup anxiety. In developing their scale of intergroup anxiety, they included items that tap into people's outcome expectancies but did not distinguish between anxiety and expectancies. We believe that distinguishing between intergroup anxiety and outcome expectancies will be useful and, as such, the current work expands on and complements Britt and his colleagues' previous work.

2. It is worth noting that 23 participants who participated in the first session of the study had either completed their extra credit or were unable to sign up to return due to scheduling restrictions. However, these participants did not differ from the other participants in the race of their anticipated interaction partner, their intergroup anxiety, pre-interaction anxiety, or outcome expectancies. To be consistent, all reported analyses focus on participants who were able to sign up to return for the interaction. However, the inclusion of these participants, where possible, resulted in virtually identical findings.

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