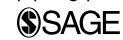


Intergroup Anxiety: Theory, Research, and Practice

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Abstract

This article reviews studies of intergroup anxiety and places them in the context of a theoretical model that specifies categories of antecedents and consequences of intergroup anxiety. It is proposed that intergroup anxiety is comprised of three interrelated components: an affective component, a cognitive component, and a physiological component. The potential causes of intergroup anxiety include personality traits (e.g., social dominance orientation, attributional complexity), attitudes and related cognitions (e.g., negative expectations, stereotypes), personal experience (e.g., negative contact), and situational factors (e.g., the presence of linguistic barriers, structured vs. unstructured interactions). The potential consequences include attitudes and other cognitions (e.g., stereotypes, negative expectations), affect (e.g., fear, anger), and behavior (e.g., avoidance, negative behaviors). Theory and research on the reduction of intergroup anxiety (e.g., intergroup contact, direct or indirect cross-group friendships) are also presented. The discussion explores the implications of these studies for theory, research, and practice.

Keywords

intergroup anxiety, intergroup contact, intergroup attitudes, intergroup relations

By the early 1980s, I had been studying school desegregation for nearly a decade. Because of this work, I was invited to participate in a symposium on desegregation at the Western Psychological Association meeting in 1984. The convener of that session asked me if I would try to answer a deceptively simple question, “Why don’t Blacks and Whites interact with one another in desegregated schools?” As I thought about that question, it seemed to me that there are many answers, most of them embedded in the history of relations between Blacks and Whites in America. But to me, as a social psychologist, all of these great forces of history (immigration, slavery, intergroup violence); deep differences in cultures of origin, social class, social norms, beliefs, and lived experiences; as well as political disenfranchisement, injustice, and discrimination are distilled down to the day-to-day explicit or implicit decisions of individuals about whether or not to cross the invisible line conceptualized as race. That is, from my perspective, there is an immediate set of causes for avoiding interracial interactions that exist within individuals and these were the causes that captured my attention.

I thought then, and I still believe, that concerns over what will happen during interracial interactions hold both Blacks and Whites back from interacting freely with one another in the schools and elsewhere. Specifically, both Blacks and Whites worry that intergroup interactions will be negative or will have negative outcomes. I termed these concerns “intergroup anxiety” and set about researching this idea with my favorite collaborator (W. G. Stephan & Stephan, 1985). We

quickly realized that this type of anxiety applied not only to relations between Blacks and Whites but also to almost any set of social groups that are viewed as being different in some significant way. This idea has struck a chord among intergroup and intercultural relations researchers, theorists, and practitioners. It has been the topic of more than a hundred studies in the last quarter century, apparently because it touches on something fundamental about the problems of interacting across group boundaries. Intergroup anxiety helps us to understand why such interactions are often more complicated and difficult than interactions with ingroup members.

In this article, I present a theoretical model of the antecedents and consequences of intergroup anxiety and review the research evidence that has been gathered on intergroup anxiety. After defining intergroup anxiety, I present evidence on its construct validity along with a theoretical model that frames my review of the literature. I propose that intergroup anxiety is comprised of three interrelated components: affective, cognitive, and physiological. It is caused predominantly by four types of factors: personality traits and related personal characteristics, negative attitudes and related cognitions, personal experiences, and situational factors. In

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turn, intergroup anxiety influences cognitions, affect, and behavior. I also suggest that it may be possible to reduce intergroup anxiety by changing intergroup cognitions, reducing negative affect and emotions, increasing intergroup contact, managing the situations in which contact occurs, changing behaviors toward outgroup members, and modifying personality traits and ingroup identification.

Definition, Reliability, and Validity

Intergroup anxiety is a type of anxiety that people experience when anticipating or engaging in intergroup interaction. It is more specific than social anxiety because it is restricted to intergroup contexts. Intergroup anxiety may be aroused only by specific outgroups or by outgroups in general. It has both trait and state components (Paolini, Hewstone, Voci, Harwood, & Cairns, 2006, refer to this distinction as chronic vs. episodic intergroup anxiety). On the one hand, intergroup anxiety may be an enduring, cross-situational feature of an individual's affective responses to a specific outgroup or to outgroups in general, although people who experience intergroup anxiety may not experience anxiety in other social contexts. On the other hand, intergroup anxiety may be aroused during intergroup interaction and may vary depending on features of the situation. It is the trait-like qualities of intergroup anxiety that are measured when people are asked to report on the degree to which they anticipate experiencing, or have experienced, intergroup anxiety during intergroup interaction. In this case, people are most likely to be reporting on a relatively enduring aspect of their relationships with the outgroup in question. The more state-like qualities of intergroup anxiety emerge during actual intergroup interactions, primarily in response to what is occurring during the interaction.

Components of Intergroup Anxiety

Intergroup anxiety has three interrelated components: affective, cognitive, and physiological. The affective component is central, but it is frequently accompanied by the cognitive and physiological components. There is research evidence for the existence of all three components.

The affective component. Affectively, intergroup anxiety is experienced as negative and aversive. People experiencing intergroup anxiety feel apprehensive, distressed, and uneasy. Several studies provide evidence indicating that intergroup interaction does elicit anxiety-related affect. In one experiment, Whites reported more state anxiety during an interracial interaction than during an intraracial interaction (Amodio, 2009). A second experiment found that White participants who scored high on intergroup anxiety reported greater state anxiety when anticipating interaction with Blacks than Whites (Britt, Boniecki, Vescio, Biernat, & Brown, 1996). A third study found that Whites reported

greater discomfort in their interactions with Blacks and Asian Americans than in their interactions with other Whites (Littleford, Wright, & Sayoc-Parial, 2005). In addition, a study by Liu, Chua, and Stahl (2010) found that intercultural negotiations led to greater reported discomfort than intracultural negotiations. Although people can feel intergroup anxiety without necessarily identifying their specific concerns, in most cases the feeling of intergroup anxiety is closely connected to cognitive concerns.

The cognitive component. Cognitively, intergroup anxiety can be created by an appraisal that interaction with outgroup members is expected to have negative consequences. In particular, people may be concerned about intergroup interaction for four types of reasons (W. G. Stephan & Stephan, 1985). First, they may worry about negative psychological consequences for themselves including being embarrassed, misunderstood, fearful, confused, irritated, frustrated, or feeling incompetent. Second, they may be concerned about negative behavioral consequences for themselves including being discriminated against, physically harmed, deceived, exploited, harassed, or contaminated (e.g., by disease). Third, they may be worried that they will be negatively evaluated by the outgroup. This category of concerns includes being rejected, negatively stereotyped, disapproved of, disdained, disrespected, ridiculed, insulted, or being perceived as prejudiced. Fourth, people may believe members of their own group will disapprove of them for associating with outgroup members.

A number of correlational studies provide evidence consistent with the existence of a cognitive appraisal component for intergroup anxiety. For instance, one study found that Hispanics and Whites who had the most negative expectations about intergroup interactions reported the highest levels of anxiety concerning these interactions (Plant, Butz, & Tartakovsky, 2008). Another study also found that negative expectations about an anticipated interracial interaction were positively correlated with anxiety about this interaction (Butz & Plant, 2006, also see Plant & Devine, 2003). A study by Britt et al. (1996) showed that expecting to interact with an outgroup member led to beliefs that the interaction would be difficult compared with interactions with ingroup members. In addition, expecting to be rejected by outgroup members during intergroup interaction is correlated with intergroup anxiety (Barlow, Louis, & Terry, 2010), as are beliefs that an outgroup member is hostile (Butz & Plant, 2006). Thus, these studies suggest that people who have negative expectations for intergroup interaction experience high intergroup anxiety.

The physiological component. Research has found that in intergroup contexts, people experience elevated galvanic skin responses (Rankin & Campbell, 1955), increased systolic blood pressure (Littleford et al., 2005), increased cortisol levels (among participants who were concerned about

appearing prejudiced; Trawalter, Adam, Chase-Lansdale, & Richeson, 2012), and greater left ventricular contractility and vasoconstriction (although this response decreased during a cooperative intergroup interaction; Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001). In the terms used by Cacioppo and Tassinary (1990) to describe relationships between psychological and physiological variables, it appears that physiological arousal is a common concomitant of intergroup interaction.

There is an interplay among the three components of intergroup anxiety. For trait-like intergroup anxiety, thoughts about the negative consequences of intergroup interaction can easily elicit intergroup anxiety, but it is also possible that the causal relationship between these two variables is reciprocal. That is, the negative affect associated with intergroup anxiety could elicit thoughts about the difficulties of intergroup interactions. In the case of trait-like intergroup anxiety, physiological arousal is likely to be minimal (although ruminating about the outgroup could generate considerable arousal). State-like intergroup anxiety is more dynamic than trait-like intergroup anxiety. It varies within and across situations to a greater degree than trait-like intergroup anxiety. For state-like intergroup anxiety, causality between the cognitive and affective components of intergroup anxiety is again likely to be reciprocal, but in this case the reciprocal effects may occur in rapid succession. Also, in this case either the cognitive or the affective component of intergroup anxiety can activate medium to high levels of physiological arousal (e.g., people may become very upset if they anticipate being the target of discrimination). And, in some instances, physiological arousal may occur first and then be interpreted as intergroup anxiety and subsequently elicit negative cognitions about intergroup interaction.

Measuring Intergroup Anxiety

The most widely used measure of intergroup anxiety consists of variants of the scale developed by W. G. Stephan and Stephan (1985), which emphasizes the affective component. This measure asks respondents to indicate the degree to which they experience a set of affective states during (or when anticipating) intergroup interaction. Some of the most commonly used affective items are as follows: anxious, comfortable (reverse scored), worried, at ease (reverse scored), awkward, confident (reverse scored), apprehensive, and worried.

Reliability. A factor analysis of one version of the intergroup anxiety measure indicated that all items loaded on a single factor (W. G. Stephan, Ybarra, & Bachman, 1999). The internal consistency of measures of intergroup anxiety is consistently quite high (mean Cronbach's alpha across 16 samples from my studies = 0.91). The test-retest reliability of intergroup anxiety over a 6-month time period was reported to be 0.49 in one study (Binder et al., 2009) suggesting that while

there is some stability in intergroup anxiety over time, it may also fluctuate over time.

Validity. Evidence for the discriminant validity of intergroup anxiety comes from a set of studies of the integrated threat theory (Berrenberg, Finlay, Stephan, & Stephan, 2002; Corenblum & Stephan, 2001; Renfro, Duran, Stephan, & Clason, 2006; C. W. Stephan, Demitakis, Yamada, & Clason, 2000; W. G. Stephan et al., 2002; W. G. Stephan et al., 1999; W. G. Stephan, Ybarra, Martinez, Schwarzwald, & Tur-Kaspa, 1998). This theory proposes that realistic group threats (threats of actual harm to the ingroup), symbolic group threats (threats to the ingroup's values and beliefs), negative stereotypes, and intergroup anxiety share a common theme: They all involve negative expectations regarding outgroups. As such, these four variables should be correlated with one another. And, indeed, these studies found that they were all significantly inter-correlated. In these studies, the four threat variables were then used in regression analyses to predict prejudice. The target groups included racial groups, gender groups, immigrants, beneficiaries of affirmative action, victims of cancer, and people with AIDs. The results of these studies showed that intergroup anxiety made a unique contribution to predicting prejudice, controlling for realistic threats, symbolic threats, and negative stereotypes. As an aside, my current view of the relationship of intergroup anxiety to the other threats in the intergroup threat theory is that intergroup anxiety is an individual-level threat that can include both realistic and symbolic threats to the self (W. G. Stephan, Ybarra, & Morrison, 2009).

A Theoretical Model of Intergroup Anxiety

There are four basic categories of *antecedents* of intergroup anxiety: (1) personality traits and other personal characteristics, (2) attitudes and other related cognitions, (3) personal experiences, and (4) situational factors (for related approaches to antecedent variables in intergroup relations see Allport, 1954; Duckitt, 2001; Stangor & Jost, 1997; W. G. Stephan, 1987; Trawalter, Richeson, & Shelton, 2009). The *consequences* of intergroup anxiety consist of three categories of outcomes: (1) cognitive, (2) affective, and (3) behavioral. In this basic model, intergroup anxiety is cast as a mediator between its antecedents and consequences (Figure 1). Although this may appear to be a typical linear model of causality, a linear model cannot capture the complexity of the causal relationships among these categories of variables. Intergroup anxiety is not only caused by the four antecedents, but it can also have an impact on these "antecedents." That is, the causal relationships are reciprocal (e.g., negative attitudes toward an outgroup can cause intergroup anxiety, and intergroup anxiety can increase negative attitudes). The antecedent variables can also act as mediators of one another and then impact intergroup anxiety (e.g., negative

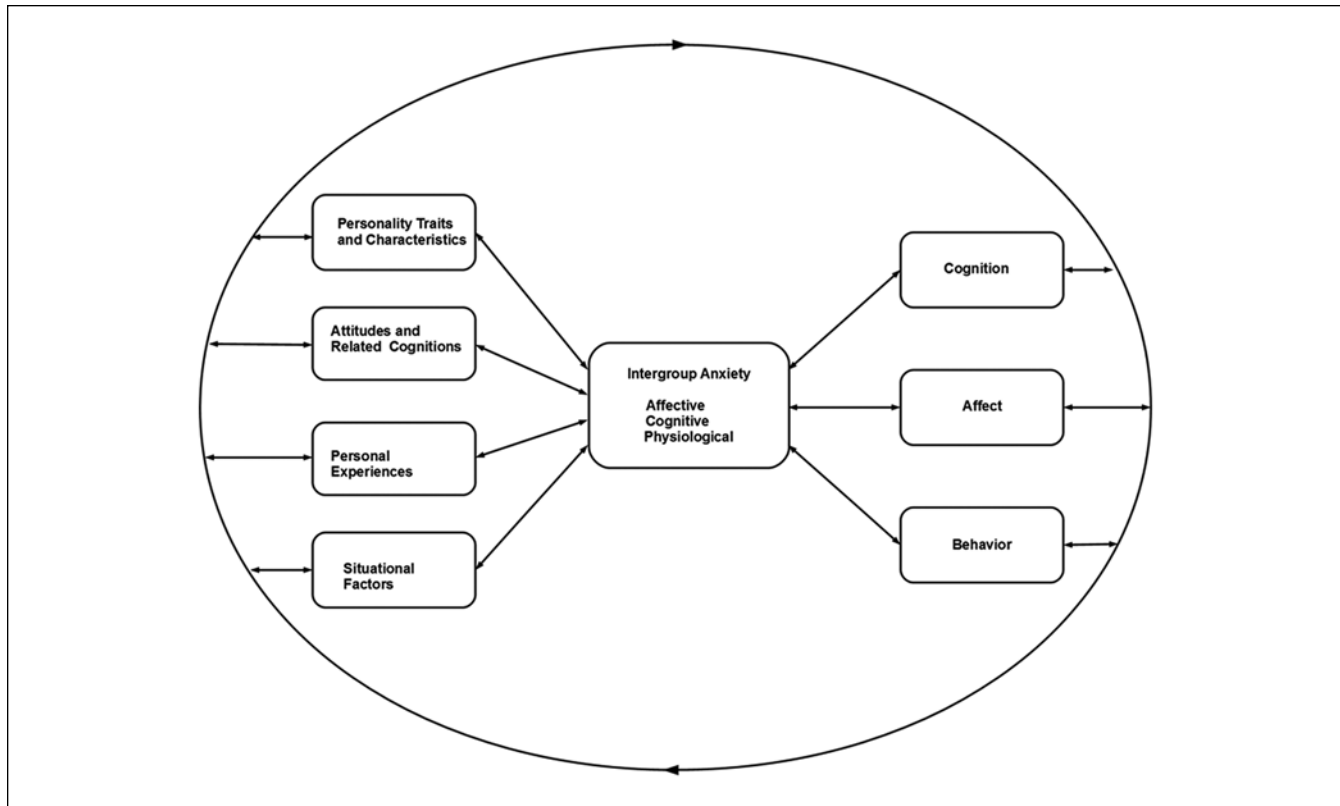


Figure 1. A theoretical model of intergroup anxiety.

contact leads to negative attitudes that then lead to intergroup anxiety).

There are also reciprocal causal relationships between intergroup anxiety and the consequences in the model (e.g., intergroup anxiety leads to awkward intergroup interactions that increase future intergroup anxiety). Likewise, intergroup anxiety can impact outcomes that then influence other outcomes (e.g., intergroup anxiety leads to awkward intergroup interactions that then lead to increased prejudice). Multiple causes of intergroup anxiety and multiple consequences of intergroup anxiety may occur simultaneously or in rapid succession (e.g., personality traits such as authoritarianism and situational factors such as intergroup competition can both promote intergroup anxiety at the same time). Furthermore, when multiple causes are present, they may not all work in the same direction. Some may increase intergroup anxiety (e.g., negative stereotypes), while others decrease intergroup anxiety (e.g., task interdependence among ingroup and outgroup members). In a similar fashion, intergroup anxiety can simultaneously affect more than one type of consequence (e.g., intergroup anxiety can lead to biased intergroup perceptions as well as biased behavior toward outgroup members). Moreover, the “consequences” of intergroup anxiety can have an impact on the “antecedents” (e.g., negative contact experiences caused by intergroup anxiety can create

negative stereotypes that are elicited during future interactions and then cause intergroup anxiety).

In addition, variables such as group membership (e.g., race, gender) may moderate the degree to which any set of causal relationships is present. For example, the correlation between amount of intergroup contact and intergroup anxiety may be stronger for minority group members than for majority group members. If so, one explanation might be that minority group members, because they are typically subordinate to majority groups, have a greater need to learn how to negotiate intergroup interactions so they use contact to acquire knowledge that then reduces their intergroup anxiety. Finally, all of the antecedents and consequences themselves may have antecedents and consequences that are not included in the model (e.g., personality traits have genetic and environmental causes).

Antecedents of Intergroup Anxiety

In the following sections, I discuss the four basic categories of antecedents. For each category, I present a theoretical section in which I describe the relationships of variables in that category to intergroup anxiety. Then, I summarize research that provides evidence on the relationships between variables in that category and intergroup anxiety.

Personality Traits and Personal Characteristics

Theory. Personality traits and other relatively enduring personal characteristics can predispose people to experience intergroup anxiety because they influence how intergroup interactions are framed as well as attitudes toward outgroups. The traits that are most likely to predispose people to experience intergroup anxiety are those that lead them to be prejudiced, ethnocentric, mistrustful, intolerant of ambiguity and uncertainty, lacking in self-confidence, low in empathy, low in cognitive complexity, and hostile or aggressive. Individuals with these and related traits will be more fearful of interacting with members of groups that are different from theirs than people scoring low on such characteristics. They may not feel competent to interact successfully with outgroup members, expect the worst from members of other groups, anticipate being disliked or rejected, and expect intergroup interactions to be difficult and distressing. When actually interacting with outgroup members, individuals who have these traits may experience intergroup anxiety if their values and norms are violated by members of the outgroup. They may also become anxious if their personality traits lead them to feel that they are not in control of the situation. In addition, these personality traits may predispose people to perceive that members of other groups are taking advantage of them or are not being sufficiently receptive or respectful, and these perceptions, too, will make them feel anxious.

A second type of relatively enduring personal characteristic that influences intergroup anxiety consists of various aspects of social identity. People who strongly identify with a social group (such as a national, ethnic, religious, or gender group) to which they belong can be expected to experience intergroup anxiety when interacting with members of contrasting social groups. The high value they place on their own group will lead them to be apprehensive about the threats posed by the other group. They are also apt to expect difficulties to arise during intergroup interaction due to differences in beliefs, values, and norms between the groups.

Ingroup identification serves as a basis for categorizing other people into ingroups and outgroups. This categorization process can elicit a host of ingroup–outgroup biases that can generate intergroup anxiety. Many of these group-identity-based biases are implicit. For instance, people tend to associate outgroups with negative words and ingroups with positive words (as measured by the Implicit Association Test, Banaji & Greenwald, 2013). Other implicit biases that may create intergroup anxiety include the tendency to attribute negative outgroup behaviors to internal factors (Pettigrew, 2001), the tendency to differentially remember negative outgroup behaviors that have been attributed to internal factors (Ybarra, Stephan, & Schaberg, 2000), a bias toward remembering male outgroup members who display anger (Krumhuber & Manstead, 2011), the relative inability to recognize the faces of outgroup members (Meissner, Brigham, & Butz, 2005), and the perception that outgroup

members are unable to experience the same range of emotions as ingroup members (known as infra-humanization, Paladino & Vaes, 2009). These biases can create intergroup anxiety because they lead people to experience negative affect, impute negative traits to outgroup members, and perceive that men from this group are often angry. Also, ingroup members will be concerned about being unable to distinguish outgroup members from one another and will consider them to be less human than ingroup members, which may make interaction with them uncomfortable.

Research. The research literature provides support for some of these conjectures, but many have not yet been investigated. In the personality domain, traits that reflect a concern with the maintenance of societal beliefs and practices, such as social dominance orientation, right wing authoritarianism, conservatism, ethnocentrism, and religiosity have been found to be positively correlated with intergroup anxiety (Blair, Park, & Bachelor, 2003; Costello & Hodson, 2011; Matthews, Levin, & Sidanius, 2009; Renfro et al., 2006; W. G. Stephan & Stephan, 1989). Other studies indicate attributional complexity and emotional empathy are negatively correlated with intergroup anxiety (W. G. Stephan & Stephan, 1985; Vezzali, Giovannini, & Capozza, 2010). Low attributional complexity or low empathy may predispose people to feel intergroup anxiety because they make it more difficult to understand and predict the behavior of outgroup members.

Several studies have found that strength of identity with the ingroup is positively correlated with intergroup anxiety (Aberson & Gaffney, 2008; Corenblum & Stephan, 2001; Renfro et al., 2006; W. G. Stephan et al., 2002; Suzuki-Crumly & Hyers, 2004). Similarly, considering the ingroup to be highly distinctive has also been found to be positively correlated with intergroup anxiety (González, Sirlopú, & Kessler, 2010), perhaps because ingroup members are worried that their feeling of distinctiveness will be undermined during interactions with outgroup members.

For personality traits, a reasonably compelling argument can be made that causality runs predominantly from these traits to intergroup anxiety, rather than the reverse. Because personality traits are relatively stable over time, intergroup anxiety is likely to have only a limited causal role in modifying traits such as right wing authoritarianism or ethnocentrism. Intergroup anxiety might have a somewhat larger impact on strength of ingroup identity than it does on personality traits, but this role probably pales in comparison with the effects of other factors such as socialization, ingroup affinity, and amount of ingroup contact on strength of identity.

Attitudes and Related Cognitions

Theory. Negative attitudes and perceptions of outgroups are important antecedents of intergroup anxiety. The relevant negative attitudes and perceptions are those that form the basis for negative expectations concerning intergroup

interaction. In particular, prior prejudice toward outgroups and negative stereotypes should promote higher intergroup anxiety. Prejudice may lead people to be concerned that their attitudes will be evident to members of the other group, anticipate that the other group will reciprocate their negative attitudes, and cause them to feel uncomfortable when interacting with people they disdain. Negative stereotypes set up specific negative expectations about the conduct of outgroup members. Of particular concern are stereotypes about the aggressiveness or hostility of outgroup members, their lack of moral values, and their incompetence because of the negative effects these characteristics can have on intergroup interactions.

Not only should people's own beliefs about outgroups affect intergroup anxiety, but so too should the perceived beliefs of other ingroup members. Specifically, the social norms of the ingroup as well as perceptions of the beliefs of significant others concerning interactions with outgroup members should influence individual ingroup members' feelings of intergroup anxiety. If social norms proscribe contact with outgroup members, these injunctions could generate anxiety about interacting with outgroup members because ingroup members will expect disapproval if they interact with outgroup members. If significant others hold negative beliefs about the outgroup (e.g., negative stereotypes), their beliefs could lead individual ingroup members to experience intergroup anxiety by leading to negative expectations.

Perceiving outgroups to be dissimilar and homogeneous may also foster intergroup anxiety. Interacting with outgroup members who have different beliefs and values is likely to be difficult, particularly if they are all thought to share the same beliefs and values as that decreases the likelihood of encountering outgroup members that are similar to the self.

Research. Numerous studies have found that negative attitudes toward outgroups are positively correlated to intergroup anxiety (Berrenberg et al., 2002; Renfro et al., 2006; C. W. Stephan et al., 2000; W. G. Stephan & Stephan, 1989; W. G. Stephan et al., 1999; W. G. Stephan et al., 1998; Van Zomeren, Fischer, & Spears, 2007). In a similar fashion, negative stereotypes are often positively correlated with intergroup anxiety (Aberson & Gaffney, 2008; Aberson & Haag, 2007; Berrenberg et al., 2002; Corenblum & Stephan, 2001; Gordijn, Finchilescu, Brix, Wijnants, & Koomen, 2008; Renfro et al., 2006; C. W. Stephan et al., 2000; W. G. Stephan et al., 2002; W. G. Stephan et al., 1999; W. G. Stephan et al., 1998). Other negative attitudes or beliefs about outgroups have also been found to be related to intergroup anxiety. For instance, infra-humanization and perceiving that immigrants do not wish to participate in the life of the host culture are positively correlated with intergroup anxiety (Costello & Hodson, 2011; Rohmann, Florack, & Piontkowski, 2006). At the other end of the attitudinal spectrum, positive attitudes toward multiculturalism are negatively correlated with intergroup anxiety (C. White, Duck, & Newcombe, 2012).

Studies also show that outgroups that are considered to be threatening, antagonistic, and different in terms of status may engender intergroup anxiety. As previously indicated, studies of integrated threat theory show that perceived realistic and symbolic threats to the ingroup are consistently related to intergroup anxiety (Berrenberg et al., 2002; Corenblum & Stephan, 2001; Renfro et al., 2006; W. G. Stephan et al., 2002; W. G. Stephan et al., 1999; W. G. Stephan et al., 1998). In a related vein, believing that the ingroup and outgroup have a history of conflict is positively correlated with intergroup anxiety (Corenblum et al., 2001; W. G. Stephan et al., 2002). Likewise, perceived status differences between groups are positively correlated with intergroup anxiety (Corenblum et al., 2001; W. G. Stephan et al., 2002). Perceived threats, a history of intergroup conflict, and status differences between groups most likely create intergroup anxiety because they all generate negative expectations concerning intergroup interactions.

Three studies provide support for the idea that the outgroup attitudes of significant others are associated with intergroup anxiety (De Tezanos-Pinto, Bratt, & Brown, 2010; Jasinskaja-Lahti, Mähönen, & Liebkind, 2011; Mähönen, Jasinskaja-Lahti, Liebkind, & Finell, 2010). In these studies, it was found that when family and/or friends have negative attitudes toward outgroups, people report higher intergroup anxiety.

With the exception of studies of negative attitudes (prejudice), the authors of nearly all of these studies have considered negative beliefs and perceptions to be the causes, not the consequences, of intergroup anxiety. However, it is often as easy to make the argument that intergroup anxiety causes negative beliefs and perceptions as it is to make the opposing argument. Consider the case of negative stereotypes. Nearly all of the research conducted on the relationship between negative stereotypes and intergroup anxiety takes the position that negative stereotypes cause intergroup anxiety. However, intergroup anxiety could also cause negative stereotypes because people may attribute their discomfort during intergroup interactions to negative traits of the outgroup. In the case of negative attitudes, the relationship between attitudes and intergroup anxiety is probably reciprocal and plays out over time with each influencing the other. For example, if interactions with outgroup members go badly and generate intergroup anxiety, prejudice may result, but that prejudice could lead people to be more concerned that future interactions will go badly and thereby increase future intergroup anxiety. It is worth noting that many of the studies of intergroup cognitions and other antecedents of intergroup anxiety are correlational which means that third variables may account for some of the observed relationships.

Personal Experience

Theory. Low levels of intergroup contact are associated with a lack of knowledge of outgroups (Pettigrew & Tropp, 2008). Thus, low levels of contact may leave people with a limited

understanding of outgroup's behaviors, traits, beliefs, and values. This lack of understanding would be expected to increase uncertainty during intergroup interactions. In addition, low levels of contact mean ingroup members have had few opportunities to acquire skills in interacting with outgroup members or to come to know them as individuals. Moreover, lack of contact makes it difficult for ingroup members to empathize with outgroup members. A lack of contact may also increase concerns about being rejected by outgroup members. Uncertainty, poor intergroup interaction skills, low empathy, and concerns about rejection could all increase intergroup anxiety by fostering negative expectancies concerning the outcomes of intergroup interaction.

Negative contact would be expected to have even more adverse effects on intergroup anxiety than neutral or positive contact because, unlike a lack of contact, it generates experience-based expectancies about interaction with the outgroup. People who have experienced negative contact know that intergroup interaction can have negative effects and have reason to expect negative outcomes in the future.

Research. So many studies have shown that the amount of intergroup contact and intergroup anxiety are negatively correlated that these studies have been subjected to meta-analysis (Pettigrew & Tropp, 2008). Pettigrew and Tropp (2008) found that across 60 studies, the mean correlation between amount of contact and intergroup anxiety was -0.29 . These studies are typically viewed as showing that high levels of intergroup contact reduce intergroup anxiety, but it is also possible that low intergroup contact leads to high levels of intergroup anxiety. These studies examined a variety of types of contact and included a wide range of groups (ethnicity, nationality, religion, age, immigrants, sexual preferences). Several studies indicate that negative contact is positively correlated with intergroup anxiety (Aberson & Gaffney, 2008; Corenblum & Stephan, 2001; Rohmann et al., 2006; C. W. Stephan et al., 2000; W. G. Stephan et al., 2002).

Situational Factors

Theory. The level of intergroup anxiety people experience in an intergroup interaction can be influenced by situational factors that create negative affect or trigger negative expectations and other negative cognitions. In particular, situations characterized by competition, unequal ratios of ingroup to outgroup members, and status differences between groups would be expected to create intergroup anxiety. In addition, lack of clarity in the roles of the participants and a lack of familiarity with the context could generate intergroup anxiety, especially when the outcomes of the interaction are important. Moreover, events that transpire during the interaction itself can also cause intergroup anxiety, such as unfriendly behavior, arguments, misunderstandings, rudeness, lack of respect, and acts of discrimination or aggression.

Research. Only a small number of studies have examined situational factors. It has been found that when barriers to intercultural communication exist (e.g., foreign students have strong accents or limited language skills) and are associated with negative emotional reactions, these emotional reactions are positively correlated with intergroup anxiety (Spencer-Rodgers & McGovern, 2002). Thus, this study suggests that communication barriers may lead to intergroup anxiety. A related study found that minimally disrupting people's ability to communicate during intergroup interactions (by delaying their video communications to one another by 1 second) leads to intergroup anxiety, apparently because these disruptions make the interactions more ambiguous (Pearson et al., 2008). Intergroup interaction that takes place in unstructured situations leads to greater intergroup anxiety than interaction in structured situations (Avery, Richeson, Hebl, & Ambady, 2009). Similarly, feeling a lack of control over the interaction has been found to be positively correlated to intergroup anxiety (Johnson, 2006). A lack of structure or control over the interaction would make intergroup interactions unpredictable, thus sparking anxiety.

A reciprocal causal relationship between situational factors and intergroup anxiety during intergroup interaction likely exists. Certainly, situational factors can increase intergroup anxiety, but intergroup anxiety may have an impact on situational factors as well. Intergroup anxiety could have an impact on the situation because it is likely that people experiencing intergroup anxiety are less cooperative, open, accepting, apt to listen carefully, and trusting, as well as more irritable, prone to frustration, and generally negative than people who are not experiencing intergroup anxiety. These negative behaviors may then influence outgroup members whose reactions could have a negative impact on the situational climate (e.g., more competitive, tense, confrontational, etc.) and hence on the intergroup anxiety of ingroup members.

There are undoubtedly interactions between situational factors and other causes of intergroup anxiety. For example, unstructured intergroup interactions are likely to elicit more intergroup anxiety in people who are low in tolerance for ambiguity than in those who are high in tolerance for ambiguity. In contrast, people who are either high or low in tolerance for ambiguity may experience little intergroup anxiety in intergroup interactions that are highly structured because structure reduces ambiguity.

Consequences of Intergroup Anxiety

Intergroup anxiety is almost inevitable in some intergroup contexts and is present to some degree in most others. It has a wide variety of consequences, not all of them are negative. I will consider the effects of intergroup anxiety on three domains of variables: cognitive, affective, and behavioral.

Cognitive Consequences

Theory. The negative affect central to intergroup anxiety can activate an array of evaluatively consistent negative outgroup cognitions including negative attitudes, negative stereotypes, negative beliefs about outgroups, and biased perceptions of outgroups (for a discussion of a connectionist approach to the relationship between cognitions and affect in intergroup relations, see W. G. Stephan & Stephan, 1993). These negative outgroup cognitions often serve to justify the intergroup anxiety that ingroup members experience. For instance, people may devalue outgroups that make them feel anxious.

Another way intergroup anxiety influences cognition is by depleting cognitive resources. During intergroup interactions, people may devote attention and thought to worrying about the negative expectations they have concerning the outgroup. Also, people probably expend more energy being vigilant during intergroup than intragroup interactions and this vigilance, too, may deplete cognitive resources. When intergroup anxiety depletes cognitive resources, it may lead to a greater reliance on cognitive heuristics (cf. Pohl, Erdfelder, Hilbig, Liebke, & Stahlberg, 2013) and other types of simplified information processing.

Intergroup anxiety may also interfere with executive functioning (i.e., the management of cognitive processes). For example, intergroup anxiety may lead to more inaccurate responding in situations requiring rapid judgments, such as the Stroop task (see Richeson & Shelton, 2003) or the “shooter bias” task in which people are more likely to mistakenly perceive that an outgroup member has a weapon than an ingroup member (e.g., Miller, Zielaskowski, & Plant, 2012). In addition, intergroup anxiety may degrade performance on complex cognitive tasks in a manner that parallels the effects of stereotype threat on the performance of achievement-related tasks (Aronson & McGlone, 2009).

Cognitive responses to intergroup anxiety are shaped, in part, by the factors responsible for creating intergroup anxiety. Among the four causal factors included in the model (i.e., personality traits and related characteristics, attitudes and related cognitions, personal experience, and situational factors), prior attitudes and situational factors seem the most likely to influence cognitive responses to intergroup anxiety. For instance, if negative attitudes toward the outgroup were responsible for creating intergroup anxiety, cognitions connected to intergroup anxiety such as negative beliefs about the outgroup may be activated. In a parallel fashion, if situational factors (e.g., a lack of clearly defined roles in the current context) cause intergroup anxiety, people may devote cognitive resources to thinking about how to behave.

Research. Considerable correlational evidence suggests that intergroup anxiety may lead to negative attitudes and cognitions. Numerous studies indicate that intergroup anxiety is correlated with negative outgroup attitudes (Berrenberg et al.,

2002; Pettigrew & Tropp, 2008; Renfro et al., 2006; C. W. Stephan et al., 2000; W. G. Stephan & Stephan, 1989; W. G. Stephan et al., 1999; W. G. Stephan et al., 1998; Van Zomeren et al., 2007). Most of these studies also show that high levels of intergroup anxiety are also associated with negative stereotypes. Correspondingly, low levels of intergroup anxiety are associated with positive stereotypes (Vezzali et al., 2010).

Other studies using cognitive outcomes have found that intergroup anxiety is related to a number of other types of negative intergroup cognitions. For instance, intergroup anxiety is positively correlated with estimates of crimes committed by outgroup members (Pagotto, Voci, & Maculan, 2010) as well as negative attitudes toward social policies favoring the outgroup (Barlow et al., 2010; Renfro et al., 2006). Intergroup anxiety is also negatively correlated with favorable behavioral intentions (Hutchison & Rosenthal, 2011) and willingness to engage in future contact (Hutchison, Fox, Laas, Matharu, & Urzi, 2010). If intergroup anxiety causes these relationships, the negative affective component is probably responsible. That is, negative affect may activate these negative cognitions.

In addition, intergroup anxiety is negatively correlated with perceived outgroup variability (Hutchison & Rosenthal, 2011; Islam & Hewstone, 1993; Swart, Hewstone, Christ, & Voci, 2011). In an experimental setting, high (vs. low) intergroup anxiety was found to lead to greater perceptions of dissimilarity to an outgroup, compared with an ingroup, interaction partner (Britt et al., 1996). These studies suggest that intergroup anxiety may lead to the perception that outgroups are dissimilar, but homogeneous, perhaps as a way of simplifying interaction with them.

In a longitudinal study that examined the effects of intergroup anxiety on a cognitive outcome, it was found that intergroup anxiety at the end of the first year of college was positively related to higher levels of system justification (as well as social dominance orientation) at the end of the third year of college (controlling for pre-college levels of all three variables; Matthews et al., 2009). These results suggest that increased intergroup anxiety may lead people to change their views of the fairness of their society and might even alter personality traits.

Affective and Emotional Consequences

Theory. The negative affect that characterizes intergroup anxiety can prime affectively consistent negative emotions such as fear, anger, threat, dread, embarrassment, humiliation, frustration, guilt, or hatred. Which emotions are experienced depends to some degree on the types of negative cognitions and situational factors that caused the intergroup anxiety. For example, an expectation of physical harm may activate fear, whereas an expectation of unjust treatment may activate anger. Likewise, if discussing intergroup conflict creates intergroup anxiety during an intergroup dialogue,

status differences between the ingroup and the outgroup could lead to guilt in members of the high status group and resentment in members of the low status group (see Cottrell & Neuberg, 2005, for a related discussion of the relationship of specific outgroup threats to specific emotions). When high physiological arousal accompanies intergroup anxiety, it could have the effect of amplifying negative emotions.

Research. Only a very limited amount of research has examined the emotional outcomes of intergroup anxiety. One study found that intergroup anxiety is positively correlated with fear (Van Zomeren et al., 2007). Other studies have found that intergroup anxiety is positively related to anger (Butz & Plant, 2006; Plant et al., 2008). Another study found that it was positively correlated with negative emotions in general (Binder et al., 2009). Given the important role that emotions play in intergroup relations (Mackie, Maimor, & Smith, 2009), the relationship between intergroup anxiety and emotions merits additional research.

Behavioral Consequences

Theory. The negative affect and negative expectations that characterize intergroup anxiety predispose people to respond negatively to outgroup members. Intergroup anxiety is likely to increase non-verbal manifestations of anxiety during intergroup interaction, including speech difficulties, increased volume, changes in voice pitch, increased restlessness, averted gaze, postural avoidance, facial expressions of disapproval and annoyance, and general awkwardness. In addition, intergroup anxiety can lead people to respond in overtly negative ways toward outgroup members. Examples of negative behaviors that could be caused by intergroup anxiety include avoiding outgroup members, not being open with outgroup members, terminating intergroup interactions quickly, being distracted and not listening carefully, failing to respond appropriately to non-verbal communication cues, being unwilling to help outgroup members, and acting offensively (e.g., using stereotypes) or aggressively.

The specific behaviors that are caused by intergroup anxiety may depend to some extent on the factors that gave rise to the intergroup anxiety, as well as the other consequences that were caused by it (e.g., activation of specific negative emotions). For example, personality traits that lead to intergroup anxiety may play a role in shaping behavioral responses to intergroup anxiety. Intergroup anxiety that is caused by right wing authoritarianism would be more likely to lead to hostile or punitive behavioral responses than would intergroup anxiety caused by a lack of self-confidence. Similarly, if attitudes, personal experiences, or situational factors have played a role in causing intergroup anxiety, they may influence the behavioral responses to it. For instance, if a lack of prior intergroup contact has caused intergroup anxiety, people may try to avoid intergroup interaction. If people are concerned about being perceived as prejudiced, they may engage

in behaviors that they hope will increase the likelihood that they are seen as non-prejudiced, such as self-censorship and concealment of negative feelings (see Vorauer, 2006, 2013, for discussions of the effects of being concerned about the evaluations of outgroup members). If high physiological arousal accompanies intergroup anxiety, it may amplify behavioral responses to outgroup members. Although most such amplified behaviors are apt to be negative, arousal could also amplify positive responses, such as politeness or helpfulness toward outgroup members.

Any negative behaviors toward outgroup members caused by intergroup anxiety are likely to create self-fulfilling prophecies. That is, outgroup members may respond with negative behaviors that fulfill the negative expectations of ingroup members (Snyder, 2001). The outgroup member's negative behaviors could thus result in increasing intergroup anxiety among ingroup members.

Research. Studies indicate that intergroup anxiety has an impact on many types of behavior. Two studies have found that Whites displayed higher levels of non-verbal behavioral manifestations of stress (e.g., closed body posture, averted gaze, leaning away) during interracial than intraracial interactions (Trawalter et al., 2012; Trawalter & Richeson, 2008). On the other hand, another study found that Whites displayed more positive non-verbal behaviors (e.g., smiling, laughing, nodding) during an interracial interaction (similar to the interaction in the Trawalter et al., 2012, study—a getting acquainted conversation) than an intraracial interaction (Study 1A; Mendes & Koslov, 2012). In a follow-up study that focused only on smiling, smiling at an outgroup member during a non-threatening interaction was associated with higher cardiovascular reactivity (TPR, Study 1B) suggesting that stress was linked to this positive behavior.

Although the Trawalter studies (Trawalter et al., 2012; Trawalter & Richeson, 2008) and the Mendes and Koslov (2012) studies appear to have contradictory results, it is possible to reconcile them by using intergroup anxiety as an explanatory mechanism. When interracial interactions are videotaped, as they were in these studies, people may be anxious about the evaluations of not only their interaction partners but also whoever will see the videotape. They may wish to avoid appearing to be prejudiced by acting in an especially positive manner toward outgroup members. At the same time, the anxiety they are experiencing may cause them to engage in negative non-verbal behaviors that are not being consciously monitored, such as those displayed in the Trawalter studies (closed body posture, averted gaze, leaning away).

A study by Shelton (2003) is consistent with this reasoning. In this study, White participants who were instructed to appear non-prejudiced reported more intergroup anxiety during an interracial interaction than those who were not given these instructions. Their cross-race interaction partners liked the participants who had been instructed to appear non-prejudiced

more than those who had not. Thus, the intergroup anxiety experienced by the participants who were instructed to try to avoid appearing prejudiced was apparently associated with positive behaviors that led their cross-race partners to like them. Taken together, this set of studies raises the possibility that intergroup anxiety may have both positive and negative effects on non-verbal behavior in the same intergroup context.

In addition to these studies of non-verbal behavior, it has also been found that intergroup anxiety is related to a number of other behaviors. For instance, intergroup anxiety is negatively correlated with self-disclosures to outgroup members (Turner, Hewstone, & Voci, 2007) and effective intercultural communications (e.g., resolving misunderstandings, capacity to interpret non-verbal behavior; Ulrey & Amason, 2001). Other studies indicate that intergroup anxiety is negatively correlated with favorable behavioral intentions concerning outgroup contact (Martínez, 2000) and willingness to provide direct assistance to immigrants (Costello & Hodson, 2011). In addition, intergroup anxiety is positively correlated with offensive behavioral action tendencies toward the outgroup (Van Zomeren et al., 2007).

A longitudinal study found that for Blacks, high intergroup anxiety (lack of comfort when interacting with Whites) at the beginning of the first year of college was related to lower contact with Whites at the end of the year (Cole & Yip, 2008). This finding is consistent with studies showing that intergroup anxiety is positively correlated with avoidance of outgroup members (Barlow et al., 2010; Bromgard & Stephan, 2006; Duronto, Nishida, & Nakayama, 2005).

These studies suggest that intergroup anxiety leads people to display both positive and negative non-verbal behaviors, engage in fewer self-disclosures during intergroup interactions, communicate less effectively in such interactions, be reluctant to behave in positive ways toward outgroup members, act offensively toward outgroup members, and avoid intergroup interactions. These behavioral consequences of intergroup anxiety probably stem directly from the negative expectations and negative affect that is the essence of intergroup anxiety. For instance, people may not engage in self-disclosures to outgroup members because they do not expect their self-disclosures to be well received. They may act offensively because intergroup anxiety has activated negative attitudes and affect toward outgroup members. They may try to avoid intergroup interactions because doing so eliminates the possibility of their negative expectancies being actualized by outgroup members. Positive behaviors, when they occur, may be motivated by anxiety about appearing to be prejudiced.

Unfortunately, much of the evidence suggesting that intergroup anxiety causes these outcomes comes from correlational studies. As a result, in many cases, it is possible to make a plausible argument that these "outcomes" may be causing intergroup anxiety, rather than vice versa.

Reducing Intergroup Anxiety—Theory

From the perspective of the theory proposed here, intergroup anxiety can be reduced by addressing the three interrelated components of intergroup anxiety: affective, cognitive, and physiological. First, the negative affect at the heart of intergroup anxiety should be reduced and any negative emotions elicited by intergroup anxiety need to be diminished. Second, the negative expectations that are intimately connected to ingroup anxiety should be modified and replaced with more adaptive cognitions. Third, the physiological arousal that accompanies intergroup anxiety should be lowered. There are a variety of ways to modify the three components of intergroup anxiety including changing intergroup attitudes and cognitions, reducing negative affect and emotions, increasing intergroup contact, changing behaviors toward outgroup members, and modifying personality traits and ingroup identification.

Attitudes and Cognitions

It would be helpful to reduce the frequency with which the reciprocal pathways linking negative intergroup affect (e.g., apprehension) and negative intergroup cognitions (e.g., negative expectancies) are activated during intergroup interactions. Decreasing the frequency of activation of these links should reduce intergroup anxiety by diminishing the feedback loop in which negative cognitions and negative affect mutually enhance one another. For example, information that effectively counteracts negative expectancies should lower intergroup anxiety because apprehensiveness would be less likely to be activated. Knowledge of outgroup norms, values, beliefs, and standards could help to lower intergroup anxiety by reducing negative intergroup expectancies and by reducing the uncertainty of intergroup interactions. Likewise, reducing perceived dissimilarity from the outgroup should allay ingroup members' concerns about interacting with outgroup members.

Changing individuals' perceptions of ingroup social norms proscribing intergroup interaction should moderate intergroup anxiety by lowering expectations of social disapproval for interacting with outgroup members. In a similar fashion, changing individuals' perceptions that significant others hold negative attitudes toward outgroup members should reduce intergroup anxiety. Increasing perceived outgroup variability could have beneficial effects on intergroup anxiety by counteracting the uniformity of negative outgroup expectancies. In addition, encouraging ingroup members to take into consideration how they are perceived by outgroup members (Trawalter et al., 2009) should enable them to understand outgroup members better and interact with them more effectively, thereby lowering intergroup anxiety. People should also be taught to recognize and regulate their own perceptual biases (e.g., infra-humanization, attribution

biases, and memory biases) because these biases might otherwise heighten intergroup anxiety.

Affect and Emotions

Activating positive affect in association with outgroup members should decrease intergroup anxiety by counteracting the negative affective component of intergroup anxiety. Positive affect could be generated by creating positive situations for intergroup contact, ensuring that such interactions have positive outcomes, providing positive information about outgroup members, and exposing ingroup members to admired members of the outgroup. Reducing negative emotions primed by intergroup anxiety should lower intergroup anxiety, in this case, by reducing physiological arousal. For instance, lowering perceptions of realistic and symbolic threats should reduce the physiological arousal created by fear and anger toward the outgroup.

Intergroup Contact

Increasing neutral and positive contact should reduce intergroup anxiety by lowering the negative expectancies and negative affect linked to most outgroups. Specifically, neutral and positive contact should reduce intergroup anxiety because it provides information about outgroups, increases understanding of outgroups, personalizes outgroup members, undermines perceived threats, reduces concerns about rejection or negative behaviors by outgroups, promotes empathy, undercuts negative attitudes and stereotypes, and allows people to develop skills in interacting with outgroup members. Optimally, contact should be long term, involve multiple outgroup members, and occur in different social contexts.

When it is possible to exert control over the contexts in which intergroup anxiety occurs, efforts can be made to incorporate situational factors that should decrease intergroup anxiety—particularly the negative affective component of intergroup anxiety. In general, intergroup contact situations that provide opportunities to build trust and establish close relationships should reduce negative affect. More specifically, situational factors that should reduce negative affect during intergroup interaction include: Intergroup cooperation, well-defined structure, clear roles and social scripts, voluntary contact, balanced ratios of ingroup and outgroup members, and equal status and power within the interaction context. Reducing communication barriers should reduce the negative affective component of intergroup anxiety.

Behaviors

To reduce intergroup anxiety, people should be explicitly trained in social skills relevant to interacting successfully with outgroup members. People should also be taught to recognize their own intergroup anxiety and learn techniques of

controlling it. They also should be encouraged to understand and regulate their negative behavioral responses to intergroup anxiety. In particular, they should be encouraged to exercise control over expressions of prejudice, stereotyping, and other harmful attitudes and beliefs. Reducing negative responses to outgroups is important because such behaviors have an adverse impact on intergroup interactions, thus increasing ingroup members' intergroup anxiety. In addition, people should be trained in ways of responding to the anxiety, fear, anger, awkwardness, rejection, hostility, discrimination, prejudice, stereotypes, and other negative behaviors that outgroup members may display. This type of training should reduce the negativity of intergroup interactions and thereby make intergroup interactions less anxiety provoking.

Personality Traits and Social Identity

Certain personality traits could be modified as a means of reducing intergroup anxiety. For example, reducing social dominance orientation, right wing authoritarianism, and conservatism more generally may reduce the negative affective component of intergroup anxiety. Increasing attributional complexity, especially with respect to outgroup perceptions, should reduce intergroup anxiety by enlarging the interpretive framework used to make sense of outgroup behavior. Reducing intolerance and mistrust should lower levels of negative expectations, as should boosting self-confidence. Also, increasing emotional empathy should decrease intergroup anxiety because it humanizes outgroup members, reduces prejudice, and creates a concern for the welfare of outgroup members.

Diluting the impact of strong ingroup identities and perceived ingroup distinctiveness should reduce intergroup anxiety by lowering the perceived threats posed by outgroups. These types of changes in ingroup identity could be accomplished by activating a common ingroup identity among the members of all of the target social groups (Gaertner & Dovidio, 2009). Creating a common identity should reduce intergroup anxiety by creating positive bonds with members of other social groups.

Reducing Intergroup Anxiety— Research

The majority of the studies that have examined ways of reducing intergroup anxiety have used intergroup contact in one form or another. Most of these contact studies are correlational in nature, but some are field experiments involving naturally occurring contact, and others are laboratory experiments where contact occurs under controlled conditions.

As noted earlier, the meta-analysis of contact studies reported earlier found that amount of intergroup contact was correlated with lower intergroup anxiety (Pettigrew & Tropp, 2008), suggesting that contact may reduce intergroup

anxiety. More compelling evidence comes from a field experiment examining the effects on White college students of being randomly assigned an ingroup versus an outgroup (African American) college roommate (Shook & Fazio, 2008). The students with outgroup roommates showed a decrease in intergroup anxiety not matched by those with ingroup roommates. A pre–post study examining students on an exchange program in Morocco found that intergroup anxiety decreased from the beginning to the end of their stay (C. W. Stephan & Stephan, 1992). A semester long intergroup dialogue program using a true experimental design led to increased comfort when communicating with outgroup members fully 1 year after the program ended (Gurin, Nagda, & Zuniga, 2013).

It has also been found that having outgroup friends is related to lower intergroup anxiety (Barlow, Louis, & Hewstone, 2009; Swart, Hewstone, Christ, & Voci, 2010; Turner, Hewstone, & Voci, 2007; Vonofakou, Hewstone, & Voci, 2007). Similarly, *indirect* contact with outgroup members—which can occur when one’s friends or acquaintances have such contact—is also related to lower intergroup anxiety (De Tezanos-Pinto et al., 2010; Gómez, Tropp, & Fernández, 2011; Turner, Hewstone, & Voci, 2007; Turner, Hewstone, Voci, & Vonofakou, 2008). Another study found that imagining a *benign* conversation with a gay man reduced intergroup anxiety toward gay men among heterosexual males (Turner, Crisp, & Lambert, 2007). Indirect contact with outgroup members may reduce intergroup anxiety by reassuring people that intergroup contact does not necessarily have negative consequences.

A study examining cross-group contact in a controlled setting (Latinof[a]/Anglo) found that cortisol reactivity (used as a physiological correlate of anxiety) decreased over three interactions designed to create friendships among participants who were anxious about being rejected by outgroup members (Page-Gould, Mendoza-Denton, & Tropp, 2008). This study suggests that positive contact may reduce intergroup anxiety, at least among people for whom intergroup interaction creates negative expectations. Another study found that when people who had extensive prior contact with outgroup members experienced a stressful evaluation in the presence of outgroup members, they exhibited faster autonomic and neuroendocrine recovery than people with little prior outgroup contact (Page-Gould, Mendes, Berry, & Major, 2010). Thus, in this study, prior intergroup contact seems to have reduced physiological responses to a negative intergroup interaction.

A 12-week program using awareness of implicit bias, concerns about the effects of that bias, and the application of strategies to reduce bias successfully lowered implicit racial prejudice (Devine, Forscher, Austin, & Cox, 2012). Five psychological processes were emphasized in this study: stereotype replacement, counter-stereotype imaging, individuation of outgroup members, perspective taking, and increased intergroup contact. Although this study does not indicate that

reducing implicit prejudice was associated with decreases in intergroup anxiety (which was not measured), it does show that the program weakened the connections between an outgroup and implicit prejudice. Lowering this type of prejudice should have the effect of reducing intergroup anxiety.

Taken together, these studies provide powerful evidence of the effects of intergroup contact on intergroup anxiety. They examined different types of contact in a variety of different settings with many types of social groups. The measures of intergroup anxiety were varied, the duration of the contact ranged from very short term to months in duration, and in some cases the contact was indirect, rather than direct.

A small number of studies have examined other techniques for reducing intergroup anxiety. One study found that having an accessible script for behavior reduced Whites’ discomfort during interracial interactions (Avery et al., 2009). A 9-week electronic intergroup contact program stressing dual identities was also found to lower intergroup anxiety (F. A. White & Abu-Rayya, 2012).

Conclusion

Although I have presented evidence from the research literature that supports a considerable number of the theoretical proposals I offered, much remains to be done in theory development, research, and practice to gain a more complete understanding of intergroup anxiety.

Theory and Research

Neither the theoretical considerations I presented nor the research that has been done touch on some potentially important causes of intergroup anxiety. For instance, dimensions of culture, social structural factors, and historical relations between groups should all be related to ingroup anxiety. Cultural dimensions have hardly been examined as causes of intergroup anxiety, despite the fact that studies of intergroup anxiety have been conducted in a number of countries and some studies have involved comparisons across countries (e.g., W. G. Stephan et al., 1998). It would be useful to understand what characteristics of culture are most closely associated with intergroup anxiety. Two such characteristics, individualism versus collectivism (Triandis & Gelfand, 2012) and high versus low uncertainty avoidance (Gudykunst, 1995), would seem to be particularly likely to be related to intergroup anxiety. In individualistic cultures, the self is defined in terms of each person’s unique characteristics, whereas in collectivistic cultures the self is defined in terms of group affiliations. People from collectivistic cultures may be especially prone to categorizing others in terms of group membership that may make them more susceptible to intergroup anxiety than people from individualistic cultures. Uncertainty avoidance concerns the degree to which people wish to avoid situations they do not control or understand. People in cultures that score high on uncertainty avoidance

are likely to feel more anxious when interacting with outgroup members than people in cultures that score low in uncertainty avoidance.

The structural features of societies (their political systems, economic systems, stratification systems, etc.) should also influence intergroup anxiety. People in societies with egalitarian social structures may experience intergroup anxiety less frequently than those in more hierarchically structured societies because egalitarianism deemphasizes group distinctions. Also, the history of relations between social groups should impact intergroup anxiety. If these relations have been characterized by discrimination, injustice, inequality, and injunctions against intergroup contact, intergroup anxiety would be expected to be high. Prior intergroup conflict may be especially important as a determinant of intergroup anxiety. Warfare, genocide, terrorism, and other types of conflict would be expected to make people anxious about intergroup contact. The frequency, duration, intensity, and type of conflict (e.g., economic, political, religious, territorial) could all affect the amount of intergroup anxiety.

Many psychologists may well think culture, social structure, and historical relations are the domains of other disciplines, but they are clearly germane to gaining a complete understanding of the contexts in which intergroup anxiety surfaces and its effects when it does. Cross-cultural studies and multi-level analyses that examine societal as well as individual causes of intergroup anxiety, similar to those that have been done on other aspects of intergroup relations (e.g., Green, 2009; Kunovich, 2004; Vervoort, Scholte, & Scheepers, 2011) would be especially valuable.

Some specific variables among the antecedents and consequences of intergroup anxiety included in the theoretical model also have not received the attention needed to create a comprehensive theory of the causes and consequences of intergroup anxiety. For example, little is known about the manner in which intergroup anxiety is caused by or affects well-established biases in intergroup cognitions and perceptions. Does intergroup anxiety augment the ultimate attribution error (Pettigrew, 2001), the stereotype disconfirmability bias (Ybarra, Stephan, Schaberg, & Lawrence, 2003), or linguistic intergroup bias (Maass, Salvi, Arcuri, & Semin, 2000). Likewise, it would be valuable to know more about the degree to which memory and other cognitive processes are influenced by intergroup anxiety. In addition, only limited information on the behavioral consequences of intergroup anxiety exists. For example, does intergroup anxiety promote aggression, mistreatment of outgroup members, or discrimination in employment, judicial settings, or other contexts? And, when does intergroup anxiety have beneficial effects on behavior?

It would be valuable to establish the conditions under which the direction of causality between variables included in the theoretical model flows in a given direction. For instance, under what conditions do negative attitudes cause intergroup anxiety versus the conditions under which

intergroup anxiety causes negative attitudes. It would also be useful if research on both the antecedents and consequences of intergroup anxiety could tie them more closely the affective, cognitive, and physiological components of intergroup anxiety.

Theory and research on the moderators of intergroup anxiety are still in their infancy. At present, research including moderators suggests that theoretically important linkages between the causes and effects of intergroup anxiety may be limited to specific groups or specific levels of personality traits. Other moderators, such as culture, ethnicity/race, religion, social class, gender, and age, have yet to be studied. It would be valuable to know the situations, groups, and types of individuals to which the research findings on intergroup anxiety apply.

Practice

Practitioners would find research establishing the benefits of reducing intergroup anxiety to be especially useful. From their perspective, the primary reason to reduce intergroup anxiety is to counteract its negative effects on intergroup relations. The existing literature links high levels of intergroup anxiety to an array of negative cognitive, affective, and behavioral outcomes, but relatively little research has demonstrated that *decreasing* intergroup anxiety has beneficial effects on intergroup relations.

Practitioners are also interested in antecedent variables that are subject to modification. For this reason, they would find studies that systematically manipulate situational factors to be particularly valuable. Certain types of independent variables of interest to practitioners that might reduce intergroup anxiety have hardly been explored, such as intergroup interaction skills, communication styles, cognitive and emotional empathy, and information that counteracts perceived realistic and symbolic threats.

Research testing the effectiveness of specific techniques of reducing intergroup anxiety is badly needed. More research attention should also be devoted to testing the effectiveness of established intergroup relations programs that have the goal of reducing intergroup anxiety. If such programs were systematically evaluated and were found not to reduce intergroup anxiety, it might be possible to modify them to make them more effective. If intergroup relations programs are found to be successful in changing intergroup anxiety, it should be possible to conduct research to tie these changes to specific features of the program and specific outcomes of the program.

Concluding Comment

Decades of theory development and research on intergroup anxiety have provided us with a basic understanding of the role that intergroup anxiety plays in intergroup relations. Intergroup anxiety helps to explain why people avoid

intergroup interactions and provides insights into why intergroup interactions are often unsatisfactory and result in negative outcomes. We are now in a position to shed some light on the question posed to me 30 years ago about racial segregation within schools. We now know that members of different groups (racial groups, as well as a great many other types of groups) do not interact freely with one another because they are apprehensive about doing so. Some of their concerns can be traced to personality traits and to negative attitudes and cognitions about outgroups, while others can be traced to a lack of experience or negative experiences with outgroups and the circumstances in which the intergroup interactions occur. In general, people expect intergroup interactions to be more complex and problematic than interactions with members of their own group. The anxiety created by these negative expectations often leads to negative thoughts, feelings, and actions toward the outgroup. Fortunately, research indicates that it is possible to reduce intergroup anxiety. The challenge for the future is to increase our knowledge of intergroup anxiety and use that information to devise more effective ways of helping people overcome it.

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