7-22-2016

Interracial Interactions, Psychosocial Costs of Racism to Whites, and Anxiety: A Path Model

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INTERRACIAL INTERACTIONS, PSYCHOSOCIAL COSTS OF RACISM TO

WHITES, AND ANXIETY: A PATH MODEL

by

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A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

Major: Counseling Psychology

The University of Memphis

August 2016

Abstract

Reupke, April G. Ph.D. The University of Memphis. August 2016. Interracial Interactions, Psychosocial Costs of Racism to Whites, and Anxiety: A Path Model. Major Professor: Dr. Richard Lightsey.

The psychosocial costs of racism to Whites are the negative consequences that White people experience due to societal racism. Psychosocial costs include fear of racial minorities, guilt about being White, and empathy about racism. Psychosocial costs have been linked to negative outcomes, such as color-blind racial attitudes and cultural insensitivity. However, no studies have examined psychosocial costs in relation to negative mental health outcomes. This study integrated Plant and Devine's (2003) theory of intergroup anxiety and the literature on White racial attitudes with psychosocial costs. Plant and Devine argued that negative experiences with racial minorities foster negative expectations about future interracial interactions, which results in intergroup anxiety, or anxiety occurring during interactions with persons from a different social group. Furthermore, some studies have found that Whites experience anxiety and guilt due to awareness of or witnessing racism. No studies have examined whether quality of interracial interactions predicts psychosocial costs, and whether psychosocial costs, in turn, predict aspects of mental health—in particular state anxiety. The present study fills this gap by testing this hypothesized path model as well as a plausible second model in which trait anxiety predicts quality of interracial interactions, which, in turn, predicts psychosocial costs. The models were analyzed separately between men and women. In the target model, it was hypothesized that quality of interracial interactions would predict all three psychosocial costs. In turn, psychosocial costs would predict state anxiety. Models were tested using path analysis. All models resulted in good or acceptable fit

according to most fit indices after model modifications. However, no models appeared

viable for men and women in this sample, as many of the hypothesized paths were

nonsignificant. For instance, in the target model for women, no psychosocial cost

predicted state anxiety, and in the target model for men, only one psychosocial cost—

White guilt—predicted state anxiety. In the second model, trait anxiety did not predict

quality of interracial interactions. However, bias-corrected bootstrapping indicated that

quality of interracial interactions mediated the relationship between trait anxiety and

White fear among men. Additionally, quality of interracial interactions predicted all

psychosocial costs among women.

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Chapter 1: Psychosocial Costs of Racism to Whites and Anxiety

In 2004, Spanierman and Heppner published their preliminary work on a construct they termed "psychosocial costs," which refers to the negative effects of racism on White individuals. They posited that racism has both positive and negative effects. Although benefits of racism for White individuals (e.g., increased access to society's resources and advanced educational opportunities) are widely recognized, psychosocial costs have seldom been studied. Spanierman, Poteat, Beer, and Armstrong (2006) argued that these costs or disadvantages can be affective, cognitive, or behavioral.

Spanierman and Heppner (2004) noted that several scholars had recently examined various topics related to Whiteness and racism (e.g., White racism, White racial identity, etc.), but none had empirically measured or assessed the psychosocial costs of racism to Whites. Thus, Spanierman and Heppner developed a scale to measure White individuals' levels of psychosocial costs entitled the Psychosocial Costs of Racism to Whites Scale (PCRW). It is important to note that all White individuals, irrespective of their differing attitudes toward racial minorities, may experience psychosocial costs. The authors defined affective costs of racism as "emotional consequences experienced by White individuals as a result of racism" (Spanierman & Heppner, 2004, p. 250). For instance, White individuals may experience anxiety and fear around racial minorities due to maladaptive beliefs that racial minorities are dangerous or violent. Other emotional consequences that White individuals may experience include guilt or shame due to the realization of receiving unfair privileges and sadness or helplessness due to the awareness of the deleterious effects of racism and a perceived inability to eradicate racism (Spanierman & Heppner). The cognitive costs of racism to White individuals are what

cognitive-behavioral theorists refer to as cognitive distortions. Spanierman and Heppner specified that these cognitive distortions must consist of three components: distortions of the self, others, and reality. An example of one of these cognitive distortions is the belief of some White individuals that they lack a racial or ethnic identity. Finally, the behavioral costs of racism include any restrictions of an individual's behavior caused by a desire to avoid racial situations or encounters (Spanierman & Heppner). For instance, one type of behavioral cost is a lack of meaningful interpersonal relationships with racial minorities. Another example of a restricted behavior occurs when some White individuals feel pressured to refrain from speaking out against racism due to fear of rejection from White counterparts (Spanierman & Heppner).

In order to develop the PCRW, the authors conducted an exploratory factor analysis of generated items assessing their proposed tripartite model of the psychosocial of racism to Whites. That is, they generated items reflecting affective, cognitive, and behavioral psychosocial costs. However, the analysis resulted in three distinct factors mainly capturing affective psychosocial costs. The authors noted that many of the original cognitive and behavioral items (e.g., "I live where other Whites live because of racial segregation in society") were eliminated due to their low factor loadings. They attributed the low factor loadings of these items to the sample's low levels of racial awareness, which may have resulted in the items lacking meaning for respondents and their consequent inability to answer these questions. The first of the factors was entitled White Empathic Reactions Toward Racism, which represented respondents' emotional responses to racism and will be referred to hereafter as "White Empathy." Higher scores indicated higher empathic costs such as anger and sadness. The second factor was

entitled White Guilt; higher scores indicated higher levels of guilt and shame regarding being White. The final factor was entitled White Fear of Others; higher scores indicated higher levels of fear regarding being around persons of other races.

Since the initial publication of the PCRW, several studies have found that psychosocial costs are related to various problems. For instance, Spanierman et al. (2006) extended their original study (i.e., Spanierman & Heppner, 2004) by conducting a cluster analysis to identify groups of White individuals who share similar experiences of the various psychosocial costs of racism. They also aimed to study the relationships between each of the identified clusters and cultural sensitivity (i.e., the degree of awareness of and prejudice toward racial minorities) and color-blind racial attitudes, or attitudes characterized by the denial and minimization of the effects of race and racism (Neville, Lilly, Duran, Lee, & Browne, 2000; Ponterotto et al., 1995). Color-blind racial attitudes are associated with stronger negative attitudes toward racial minorities and help to maintain racial inequalities (Neville et al., 2000). Color-blind racial attitudes have also been found to predict modern racism attitudes in White individuals (Poteat & Spanierman, 2012). Spanierman et al. (2006) found that respondents fell into one of five clusters of psychosocial costs: Cluster A was characterized by low levels of White empathy and White guilt; Cluster B was characterized by high levels of White empathy, low levels of White guilt, and low levels of White fear of others; Cluster C was characterized by high levels of White empathy and high levels of White guilt; Cluster D was characterized by high levels of White guilt and White fear of others; and Cluster E was characterized by high levels of White fear of others and low levels of White guilt. Results also indicated that the cluster groups significantly differed on color-blind racial

attitudes and cultural sensitivity in theoretically consistent ways. For instance, Cluster E demonstrated the lowest levels of sensitivity to racial diversity.

Despite extant studies demonstrating relationships between psychosocial costs and problematic outcomes, such as decreased levels of cultural sensitivity, no empirical studies found by this author have examined the ability of psychosocial costs to predict specific mental health outcomes. It appears particularly plausible that higher levels of psychosocial costs may predict state anxiety as measured by the Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988). State anxiety is defined as a temporary and acute anxious reaction in contrast to trait anxiety, which is defined as a tendency to experience anxiety in a wide variety of situations (Spielberger, 1972). State anxiety as measured by the BAI is distinct from state anxiety as measured by other anxiety instruments, such as the commonly used State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) in a few ways. First, the BAI is considered a "pure" measure of anxiety that is free from depressive content. Studies have shown that several measures of anxiety are highly correlated with and indistinguishable from measures of depression (Kohn, Kantor, DeCicco, & Beck, 2008). In fact, it has been argued that the Trait subscale of the STAI (STAI-T) measures negative affect, defined as a general dimension of subjective distress and unpleasureable engagement that subsumes a variety of negative mood states including aspects of both depression and anxiety (Watson, Clark, & Tellegen, 1998), rather than trait anxiety, and it has been found to be more highly correlated with measures of depression than measures of anxiety (Bados, Gomez-Benito, Balaguer, 2010; Balsamo et al., 2013). Second, anxiety as measured by the BAI captures the subjective and somatic symptoms of anxiety, two

characteristics that are unique to anxiety and distinguishable from depression. In other words, the BAI measures state anxiety characterized by both subjective apprehension and arousal of the autonomic nervous system (Beck et al., 1988). It is important to note that although the BAI is a measure of state anxiety, it is specifically a measure of *prolonged* state anxiety; the BAI measures respondents' anxiety over a period of one week.

The contention that psychosocial costs may predict state anxiety is consistent with Plant and Devine's (2003) model of intergroup anxiety, defined as "feelings of tension and distress that result when interacting with a person from a different social group" (p. 1). Similar to state anxiety, the occurrence of intergroup anxiety is time-limited and hence can be considered a type of situation-specific or state of anxiety. One example of intergroup anxiety is the anxiety that occurs when interacting with a person or persons from a different racial group; this type of state anxiety is also referred to as interracial anxiety (Plant & Devine). According to Plant and Devine's model, a lack of positive experiences with outgroup members (e.g., members of a different race) creates negative expectations about future interracial interactions. This, in turn, results in intergroup anxiety. Although Spanierman and Heppner (2004) were unable to empirically identify behavioral and cognitive psychosocial costs in a factor analysis, anecdotal evidence suggests they do indeed exist (e.g., the prevalence of racially segregated neighborhoods might make it difficult for a person to have significant relationships with persons of another race due to issues of proximity). In Plant and Devine's study, lack of positive experiences with outgroup members may be considered a behavioral cost of racism, whereas negative expectations about future interracial interactions may be considered a cognitive cost of racism; both were found to predict distress (i.e., intergroup anxiety). It

logically follows that the affective psychosocial costs of racism (i.e., White empathy, White fear, and White guilt) might be associated with other forms of anxiety, such as state anxiety, which, in contrast to intergroup anxiety, is not limited to a specific situation (i.e., interactions with outgroup members).

Results from Todd, Spanierman, and Aber (2010) are also consistent with the hypothesized relationship between psychosocial costs and state anxiety. Their study examined the general emotional responses of White students as they learned about diversity issues in an educational setting. Findings demonstrated that the direction of the relationships between psychosocial costs, awareness of White privilege, and positive and negative emotional responses varied. For instance, students with both low levels of White empathy and low levels of awareness of White privilege tended to feel distressed or upset when learning about diversity issues. This indicates that psychosocial costs are related to greater emotional responses, further supporting the idea that psychosocial costs may be related to mental health outcomes such as state anxiety.

Several studies have either demonstrated or produced findings that suggest a relationship between White racial attitudes and anxiety. Given the close conceptual link between White racial attitudes and psychosocial costs of racism, these studies provide additional evidence for a potential relationship between psychosocial costs of racism to Whites and state anxiety. For example, Carter, Helms, and Juby (2004) noted that the experience of Whiteness can influence White individuals' psychological functioning, social beliefs, and social behaviors. Utsey, McCarthy, Eubanks, and Adrian (2002) similarly noted that, although empirical evidence is scarce, anecdotal evidence indicates that White individuals may experience anxiety, frustration, guilt, and shame related to

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their own racism and societal racism. In order to empirically study the anecdotal evidence indicating a relationship between racism and psychological distress among White individuals, Utsey et al. (2002) tested a path model examining the relationships between trait anxiety, racism, and self-esteem. The model indicated that self-esteem mediated the relationship between trait anxiety and racism. Specifically, trait anxiety inversely predicted self-esteem, and self-esteem positively predicted racism. The directions of these relationships were consistent with Bettelheim's (1964) theory of racism, which posits that anxiety is the result of a weak ego structure, and in order to manage the anxiety individuals must inflate or enhance their self-esteem. Enhanced self-esteem results in feelings of superiority toward members of racial outgroups. These feelings of superiority lend themselves to increased levels of racism. In other words, Utsey et al. (2002) found that racist attitudes were associated with suboptimal psychological functioning (e.g., high levels of anxiety as a result of a weak ego structure and inflated self-esteem/feelings of superiority). It is important to note that the authors were unable to rule out alternative causal directions because the study was cross-sectional. No studies to date have directly assessed the relationship between the affective psychosocial costs of racism to Whites, as opposed to White individuals' levels of racist attitudes, and a psychological health outcome such as state anxiety. A relationship between the psychosocial costs and a negative emotional state is plausible given the anecdotal and empirical evidence indicating a relationship between problematic White racial attitudes (i.e., racist attitudes) and anxiety.

The current literature has demonstrated relationships between constructs related to psychosocial costs (e.g., quality of previous interracial interactions, outcome

expectancies regarding future interracial interactions, and racism) and negative emotional responses (e.g., intergroup anxiety and trait anxiety). However, there appear to be no empirical studies that directly test the relationship between White individuals' levels of psychosocial costs and state anxiety. Plant and Devine (2003) found that constructs similar to behavioral and cognitive psychosocial costs (e.g., quality of previous interracial interactions and negative outcome expectations about future interracial interactions) predicted intergroup anxiety, a specific type of state anxiety. However, a factor analysis of the tripartite model of psychosocial costs revealed no empirical evidence of the existence of behavioral and cognitive psychosocial costs (Spanierman & Heppner, 2004). Thus, research examining the potential link between the empirically-derived affective psychosocial costs and negative mental health outcomes is necessary and a logical extension of the literature.

Anxiety may be a particularly important mental health outcome variable to examine in conjunction with the psychosocial costs of racism to Whites because of its broad implications for mental health. The experience of state anxiety can be particularly distressing, as it can produce feelings of intense apprehension, dread, tension, worry, and autonomic arousal (Endler & Kocovski, 2001; Spielberger, 1966). Anxiety, particularly when experienced at high levels, can also affect persons' social, emotional, or occupational functioning (Endler & Kocovski). Additionally, De Beurs et al. (1999) found that, among older adults, having a diagnosed anxiety disorder or having mere symptoms of anxiety that do not meet criteria for an anxiety disorder were equally detrimental to individuals' levels of disability and well-being. Both participants with anxiety disorders and participants with only anxiety symptoms had increased levels of

disability (e.g., number of days when activities were reduced due to health problems) and diminished well-being even after controlling for chronic diseases and functional limitations (e.g., restrictions in performing daily activities of living). Prolonged state anxiety as measured by the BAI is significantly different from intergroup anxiety in that it is considered to be an indicator of longer-term, clinically significant anxiety that is not confined to specific situations. Intergroup anxiety, on the other hand, is a transient type of distress, and its occurrence is limited to social interactions with outgroup members. Thus, the first purpose of this study is to determine if the affective psychosocial costs of racism directly predict (prolonged) state anxiety. If psychosocial costs do in fact predict state anxiety, the second purpose of this study is to ascertain which psychosocial cost has the strongest relationship with state anxiety.

The relationship between the psychosocial costs of racism and state anxiety will be tested in a structural model based on Plant and Devine's (2003) model of intergroup anxiety. Their model found that expectations about future interracial interactions mediated the relationship between quality of previous interracial relationships and intergroup anxiety. It is both plausible and consistent with theory (e.g., Plant & Devine, 2003) that the quality of previous interracial relationships may predict other forms of negative emotional responses, such as the psychosocial costs of racism to Whites and state anxiety. In the present study's structural model, the quality of previous interracial interactions directly predicts each of the psychosocial costs, and each of the psychosocial costs, in turn, directly predict state anxiety (see Figure 1 for a graphic depiction of the target model, Model 1).
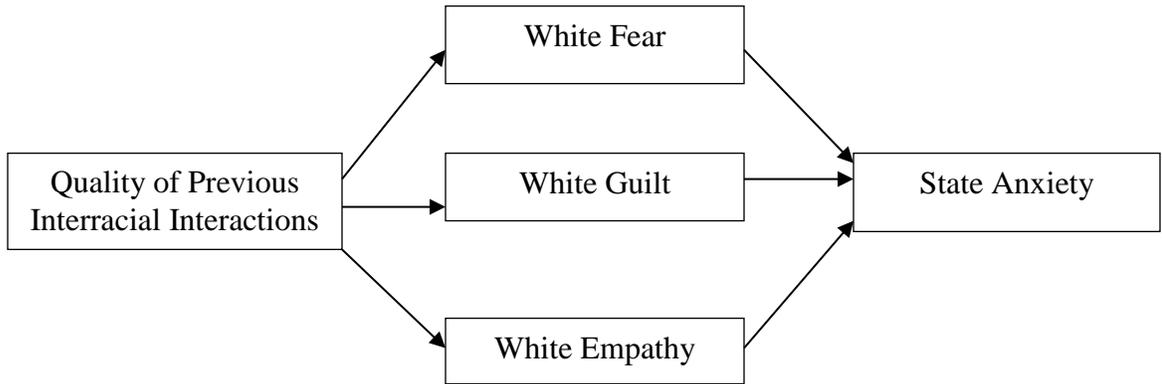
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                          │   White Fear    │
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                        ↗                     ↘
┌─────────────────┐    ┌─────────────────┐    ┌─────────────────┐
│ Quality of Previous │ │   White Guilt   │ → │  State Anxiety  │
│ Interracial Interactions │ └───────────────┘    └─────────────────┘
└─────────────────┘    ↘                     ↗
                          ┌─────────────────┐
                          │  White Empathy  │
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Figure 1. Model 1: Target Model

      This study will also test a plausible second model in which trait anxiety directly

predicts the quality of one's previous interracial relationships, and the quality of one's

previous interracial relationships, in turn, directly predicts each of the psychosocial costs

(see Figure 2 for a graphic depiction of the second model). Trait anxiety may predict

both quality of previous interracial interactions and psychosocial costs because it has

been found to be a strong predictor of a wide range of problematic cognitions, behaviors,

and feelings. For instance, Elwood, Wolitzky-Taylor, and Olatunji (2012) noted that high

trait anxiety is associated with a tendency to perceive ambiguous situations as threatening

and engage in avoidance behaviors, consequently maintaining anxiety. Furthermore, as

previously mentioned, Utsey et al. (2002) found that trait anxiety predicted both lower

self-esteem and higher levels of racism. The higher levels of racism that individuals with

high trait anxiety experience are likely to affect the quality of their interracial interactions

and levels of psychosocial costs in negative ways. For instance, a person with high trait

anxiety is already at an increased risk of perceiving ambiguous situations, such as neutral

interactions with a person of a different race or ethnicity, as threatening. If this person

also has high levels of racism, he or she is even more likely to have negative perceptions

of racial minorities during interracial interactions, potentially perceiving a neutral interracial interaction as more threatening than he or she normally would. These exacerbated perceptions of threat could cause the quality of interracial interactions to be poor, increase levels of White fear, and decrease levels of White empathy.
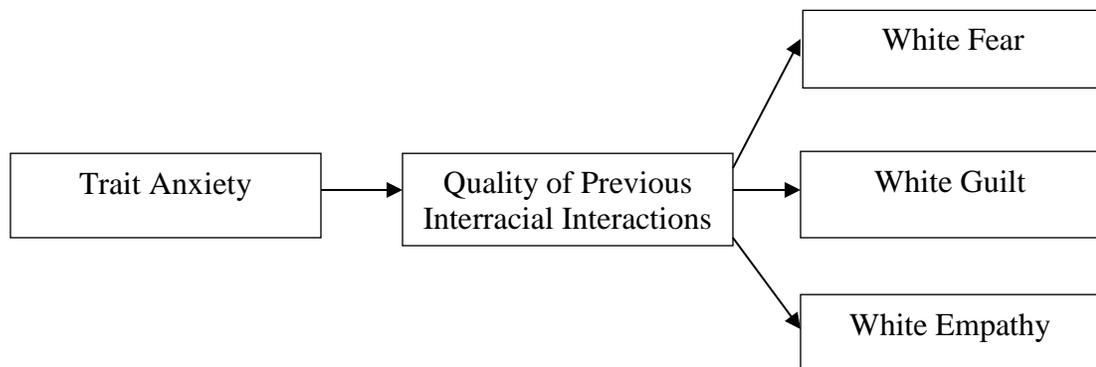
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┌──────────────────┐         ┌──────────────────────┐         ┌──────────────────┐
│  Trait Anxiety   │────────▶│ Quality of Previous  │────────▶│    White Fear    │
│                  │         │ Interracial Interactions │       │                  │
└──────────────────┘         └──────────────────────┘         └──────────────────┘
                                                               ┌──────────────────┐
                                                          ────▶│   White Guilt    │
                                                               └──────────────────┘
                                                               ┌──────────────────┐
                                                          ────▶│  White Empathy   │
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Figure 2. Model 2: Alternative Model

Jackson and Poulsen's (2005) theory of the development of ethnic prejudice demonstrates how personality traits can affect the quality of interracial interactions and attitudes toward racial minorities. The authors tested a model that integrated the Five Factor Model (FFM) of personality (McCrae & Costa, 1999) and intergroup contact theories (Allport, 1954). The FFM contends that there are five major personality traits: openness to experience, conscientiousness, agreeableness, neuroticism, and extraversion. According to Jackson and Poulsen, previous research had demonstrated relationships between personality and prejudice. For instance, previous research suggested that dispositional anxiety was associated with ethnic prejudicial attitudes (Pancer, McMullen, Kabatoff, Johnson, & Pond, 1979). However, no studies had examined the FFM in relation to prejudice. Jackson and Poulsen also noted that the results of a number of empirical studies had supported intergroup contact theory, which posits that intergroup experiences (e.g., interracial interactions) influence intergroup attitudes such that positive

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intergroup experiences with a particular outgroup result in favorable attitudes toward that outgroup. By integrating both the FFM and intergroup contact theories into their model of ethnic prejudice, Jackson and Poulsen argued that both personality traits and one's experiences contribute to the development of prejudice.

Jackson and Poulsen's (2005) results indicated that higher levels of openness and agreeableness among White participants predicted positive intergroup contact with African Americans, and positive intergroup contact predicted less prejudice toward African Americans. Furthermore, the relationship between the personality traits and prejudice levels was significantly mediated by the quality of intergroup contact experiences. This model was then replicated with Asian Americans as the outgroup population. Results were consistent with Jackson and Poulsen's hypothesis that specific personality traits can influence the probability that positive intergroup interactions will occur. For instance, individuals with high levels of openness and agreeableness were more likely to seek out favorable intergroup experiences and act in ways that were conducive to positive intergroup interactions. As a result, these individuals with more positive intergroup interactions were less likely to formulate negative opinions or attitudes directed at racial minorities. In sum, Jackson and Poulsen's study provides indirect support for this study's second model, in which trait anxiety—a dispositional characteristic that overlaps with the Big Five dimension of neuroticism—is argued to predict quality of previous interracial interactions and thereby psychosocial costs of racism.

To summarize, this study will test two separate structural models: the proposed model and the second model. The proposed model will test the hypothesis that the

quality of White individuals' previous interracial interactions will directly predict each of the psychosocial costs of racism to Whites, and each of these psychosocial costs, in turn, will directly predict state anxiety. Specifically, the quality of previous interracial interactions will inversely predict White fear, positively predict White guilt, and positively predict White empathy. In turn, White fear will positively predict state anxiety; White guilt will positively predict state anxiety; and White empathy will inversely predict state anxiety.

The second model will test the hypothesis that trait anxiety will directly predict the quality of White individuals' previous interracial interactions, and the quality of previous interracial interactions will, in turn, predict each of the psychosocial costs. Specifically, trait anxiety will inversely predict the quality of previous interracial interactions. In turn, the quality of previous interracial interactions will inversely predict White fear, positively predict White guilt, and positively predict White empathy. If both proposed models are a good fit with the data, the two models will be compared to determine which one is the better fitting model.

If results indicate a significant relationship between the psychosocial costs and anxiety, the second purpose of the study will be to determine which of the three psychosocial costs is most strongly related to anxiety (i.e., the psychosocial cost that most strongly predicts state anxiety will be determined in Model 1, and the psychosocial cost most strongly predicted by trait anxiety will be determined in Model 2). This finding would provide implications for which psychosocial cost might be most important for counseling interventions to target in order to prevent or reduce anxiety.

Additionally, a multi-group comparison will be conducted in which the structural models will be compared between men and women. Research has demonstrated significant gender differences in both anxiety levels and variables related to the psychosocial costs, such as cultural or ethnocultural empathy. Ethnocultural empathy is defined as empathy toward ethnic or racial groups different from one's own racial group (Wang et al., 2003). For example, McClean and Anderson (2009) conducted an extensive review of the literature on gender differences in fear and anxiety and concluded that there is substantial empirical evidence demonstrating that women have greater levels of fear and anxiety in childhood, adolescence, and adulthood in comparison to men. Furthermore, studies have found women to have higher levels of ethnocultural empathy compared to men (Cundiff & Komarraju, 2008; Wang et al.). Thus, it will be important to examine the structural models across gender to determine if there are any gender differences and if they are consistent or inconsistent with the literature.

In addition to examining the models for gender differences, this study will also examine the potential relationships between social desirability, or the tendency for one to respond in culturally appropriate and acceptable ways as opposed to responding to one's actual feelings (Crowne & Marlowe, 1960), and participants' responses to race-related questions. Gushue and Constantine (2007) noted that there is always the possibility that people can respond to self-report instruments in socially desirable ways, especially in cases when respondents have the opportunity to "avoid [responding] in ways that appear racist, even if those responses [reflect] their true attitudes" (p. 325). Constantine and Ladany (2000) examined the relationship between four self-report multicultural counseling competence scales and levels of social desirability. They found that three of

the four self-report instruments were significantly associated with socially desirable responding. Because of the research demonstrating the potential for participants to respond to culturally-sensitive self-report instruments in socially desirable ways, the present study will assess participants' levels of socially desirable responding and control for it in the main statistical analyses.

Finally, post hoc analyses will be conducted to determine the presence of mediation in the models if the preliminary analysis indicates that the models have a good fit with the data. In order for mediation to be present, the models must meet the following criteria elucidated by Frazier, Tix, and Barron (2004) and Baron and Kenny (1986): (a) there must be a significant relationship between the predictor and the criterion variable; (b) there must be a significant relationship between the predictor and the mediator; (c) there must be a significant relationship between the mediator and the criterion variable; and (d) the strength of the relationship between the predictor and criterion variable must be significantly reduced when the mediator is added to the model. In addition to assessing the aforementioned criteria, the chi-square difference test will be conducted to determine if mediation is present in the two models. A test of indirect effects will also be conducted to determine if mediation is present in the indirect relationships of the two models using the computer software LISREL (Joreskog & Sorbom, 2006). Finally, the strengths of the indirect effects in both the models will be contrasted or compared in order to determine which model is more credible (i.e., provides a better fit to the data) using the Akaike Information Criterion (AIC).

Chapter 2: Literature Review

Spanierman and Heppner (2004) have demonstrated that White individuals experience the negative effects of institutional racism in addition to its more widely recognized positive effects or benefits (e.g., increased access to society's resources and advanced educational opportunities). The negative effects White individuals may experience include increased levels of empathy (e.g., anger or sadness regarding the existence of racism), fear of others (i.e., fear or distrust of racial minorities), and guilt. Collectively, White empathy, fear, and guilt are referred to as the psychosocial costs of racism to Whites. Since they were first introduced in the psychological literature in 2004, psychosocial costs have been examined in relation to several different variables. However, psychosocial costs have yet to be directly examined in relation to any type of mental health outcome, such as state anxiety. In this section, the literature concerning psychosocial costs of racism, intergroup anxiety (a type of situation-specific state anxiety), and White racial attitudes will be broadly reviewed. This section will also discuss the relationships between each of these constructs and state anxiety. Finally, this section will provide a rationale for a potential relationship between each of the psychosocial costs and state anxiety.

Psychosocial Costs of Racism to Whites

Spanierman and Heppner (2004) determined the three different types of psychosocial costs by conducting an exploratory factor analysis of items assessing the negative affective, cognitive, and behavioral effects of racism that Whites may experience. The exploratory factor analysis resulted in three factors, or psychosocial costs, all of which were affective: White empathy, White guilt, and White fear of others.

These costs are measured by the Psychological Costs of Racism to Whites Scale (PCRW).

Spanierman and Heppner (2004) provided compelling evidence for the reliability and validity of the PCRW and, therefore, the construct validity of the three affective costs of racism. For example, they examined relationships between each cost and variables related to the experience of Whiteness and racism, such as color-blind racial attitudes, general racial attitudes, and cultural sensitivity. Color-blind racial attitudes are characterized by the denial, distortion, and minimization of the effects of race and racism (Neville et al., 2000; Spanierman & Heppner, 2004). Results demonstrated that psychosocial costs were associated with other constructs in theoretically-consistent ways. For example, participants' scores on the White Empathy and Guilt subscales were negatively related to color-blind racial attitudes, whereas their scores on the White Fear subscale were positively related to color-blind racial attitudes. Additionally, participants with higher levels of cultural sensitivity had higher levels of White empathy and White guilt and lower levels of White fear.

Some of the aforementioned relationships (e.g., higher levels of White fear being associated with lower levels of racial awareness and cultural sensitivity) may be problematic, as diversity experiences have been linked to several positive outcomes such as intellectual and social growth (Todd, Spanierman, & Poteat, 2011). Not surprisingly, individuals with higher levels of White fear may be more likely to avoid exposure to diversity and, thus, less likely to reap the positive psychological effects of diversity experiences. Although a relationship between psychosocial costs and psychological

health is implied, it has not been tested. Thus, it is necessary to determine if there is a direct relationship between psychosocial costs and mental health outcomes.

Spanierman and Heppner (2004) also examined the relationships between the psychosocial costs and demographic variables related to the experience of Whiteness and racism, such as amount of exposure to racial minorities, percentage of same-race (i.e., White) friends, and amount of multicultural education. Results indicated that participants with greater amounts of exposure to racial minorities, lower percentages of White friends, and high or moderate amounts of multicultural education had lower levels of White fear compared to participants with less exposure to racial minorities, higher percentages of White friends, and lower amounts of multicultural education. These relationships are important to consider because they provide information about which individuals may be most susceptible to experiencing psychosocial costs. If psychosocial costs are found to be associated with mental health problems such as anxiety, then it may be necessary to implement mental health interventions among the persons most at risk for developing higher levels of certain psychosocial costs.

The results of several studies also support the proposed relationship between psychosocial costs and state anxiety. For instance, Todd et al. (2010), discussed previously in Chapter 1, examined the general emotional responses of White students as they reflected on diversity issues during one of two types of educational contexts. During one context, students participated in a semi-structured interview and answered questions regarding their racial self-awareness and issues related to Whiteness. During the second context, participants were provided with written statements about racial issues. They responded to each statement by writing about whether or not they agreed with the

statement. Participants in the written reflection also wrote a short essay on social

inequality. The authors tested to ascertain if the psychosocial costs of White empathy,

fear, and guilt (which in this study were also referred to as levels of racial affect) as

measured by the PCRW moderated the association between racial awareness of White

privilege and general emotional responses. General emotional responses were

operationally defined as participants' responses to the Positive and Negative Affect

Schedule (PANAS; Watson, Clark, & Carey, 1988), which measured state positive and

negative affect.

Within the interview group, findings indicated that White empathy moderated the

association between awareness of White privilege and negative emotional responses.

Specifically, greater awareness of racial privilege was related to lower levels of negative

emotional responses for those with low levels of White empathy. Within the written

reflection group, White empathy and White guilt positively predicted negative emotional

responses at Time 2 after controlling for negative emotional responses at Time 1.

Furthermore, White fear moderated the association between awareness of White privilege

and negative emotional responses. Specifically, greater awareness of racial privilege was

related to higher levels of negative emotional responses for those with lower levels of

White fear. Finally, Todd et al. (2010) tested to ascertain if both White guilt and White

empathy, entered together in a regression equation, predicted negative emotional

responses in addition to the moderation. It was found that White guilt positively

predicted negative emotional responses in the model.

Todd et al.'s (2010) results indicate that psychosocial costs are related to negative

affect, a variable that is closely associated with anxiety. For instance, Merz and Roesch

(2011) found that higher levels of negative affect were associated with higher levels of anxiety, stress, and depression. Further, Watson et al. (1988) noted that negative affect corresponds to negative emotionality and is a prominent distinguishing feature of anxiety, and Watson et al. (1998) found that negative affect was associated with the symptoms and psychiatric diagnoses of anxiety and depression. The present study seeks to examine the direct relationship between affective psychosocial costs and negative emotions over a prolonged period of time that, thereby, may indicate mental health problems. Thus, prolonged state anxiety symptoms as measured by the BAI will be examined in relation to individuals' levels of psychosocial costs. The present study also aims to build on Todd et al. by examining the effects of psychosocial costs in a broader context. The results of Todd et al. were limited to students participating in diversity interventions, during which they actively reflected on racism and White privilege. The present examination of state anxiety will not be limited to a situation-specific context (i.e., participation in a diversity intervention). Rather, state anxiety will be examined in a general setting.

In their qualitative study, Spanierman et al. (2008) found that White participants experienced several negative affective, social, and cognitive consequences as a result of societal racism. Within the domain of affective consequences, participants reported five general emotional reactions to racism: (a) empathic reactions (i.e., feelings of personal anguish when learning about or witnessing racism perpetrated against persons of color); (b) guilt, shame or embarrassment (i.e., feelings of guilt regarding one's own White privilege within a racist society); (c) powerlessness and helplessness (i.e., feeling that racism is morally wrong and that nothing can be done to change or stop it); (d) White anger (i.e., anger directed at people of color as a result of perceiving people of color to

complain about racism in order to gain benefits in society); and (e) shock or surprise (i.e., feeling surprised to learn about the realities of racism). Within the domain of social consequences, participants reported six different ways in which racism affected their relationships with others: (a) limited exposure to people of other races; (b) tensions, avoidance, or fear in relationships with people of color; (c) disapproval of racist attitudes or behaviors of other Whites; (d) disconnection from their cultural group and heritage (i.e., lacking knowledge about one's own White or European-American cultural or racial group); (e) discomfort discussing racial issues; and (f) personal experience of discrimination by association (e.g., experiences of discrimination while in the company of people of color). Within the final domain of cognitive consequences of racism, participants reported three different ways in which racism affected their thoughts: (a) distortion and denial of race, racism, or White privilege; (b) acknowledgment of racism and White privilege; and (c) perceived disadvantages of being White in U.S. society (i.e., feeling as if affirmative action policies disadvantage White individuals).

Spanierman et al. (2008) indeed demonstrated several distressing effects that White individuals experience as a result of racism. The authors replicated quantitative studies' findings of the psychosocial costs of racism to Whites; within their qualitative study, participants identified guilt, fear, and empathy as emotional and social reactions to racism, just as Spanierman and Heppner (2004) identified White guilt, White fear, and White empathy as the psychosocial costs of racism via exploratory factor analysis. This study also identified additional social and cognitive responses to racism that Spanierman and Heppner did not identify (e.g., discomfort discussing racial issues; distortion and denial of racism), as their factor analysis mostly revealed affective psychosocial costs of

racism to Whites. As the distressing consequences of racism to Whites are seemingly

apparent, the next logical step in this line of research is to empirically measure the

relationship between psychosocial costs and mental health outcome variables such as

state anxiety.

Kordesh, Spanierman, and Neville (2013) also conducted a qualitative study that

revealed the distressing affective, cognitive, and behavioral consequences of the

psychosocial costs of racism to White college students during a 90-min focus group in

which they reflected on their diversity attitudes and experiences. This study differed

from Spanierman et al. (2008) in that it examined the differences between the affective,

cognitive, and behavioral consequences of antiracist students (i.e., those who reported

high levels of White Empathy and Guilt and low levels of White Fear on the PCRW prior

to participation) and non-antiracist students (i.e., those whose levels of White Empathy,

Guilt, and Fear on the PCRW followed a different pattern from that described of the

antiracist students). Results indicated that both groups experienced negative, distressing

consequences as a result of racism, but in different ways. For instance, during a

discussion about their reactions to their experiences with diversity at their university,

antiracist participants reported feelings of frustration and disappointment about the

university's seeming lack of interest in racial justice issues on campus. In contrast, non-

antiracist participants reported feelings of discomfort when having to talk about racial

justice issues on campus (e.g., as part of class discussions or assignments). Kordesh et al.

and Spanierman et al. are two excellent examples of qualitative studies that have revealed

the existence of negative effects of racism on Whites. The proposed study aims to

expand this research by quantitatively linking the psychosocial costs of racism to Whites to state anxiety, a specific mental health outcome.

Todd et al. (2011) conducted a longitudinal examination of psychosocial costs. Specifically, the authors examined changes in psychosocial costs, as measured by the PCRW, throughout the course of participants' college experience (i.e., freshman through senior year). Todd et al. argued that several variables, such as color-blind racial attitudes and engagement in diversity activities, might correlate with psychosocial costs across the college experience in specific ways. The purpose of their study was to examine how gender, color-blind racial attitudes, engagement in diversity activities, and cross-racial friendships may correlate with psychosocial costs across the college experience. Results indicated that levels of psychosocial costs did indeed change throughout the course of participants' college years. For instance, White empathy demonstrated a downward trend during the first year, an upward trend during the second and third years, and a downward trend during the last year. Furthermore, after testing whether gender and color-blind racial attitudes at college entrance prospectively predicted different patterns of change in levels of psychosocial costs, it was found that gender only predicted initial differences for White empathy; women had higher levels of White empathy at college entrance than men. It was also found that color-blind racial attitudes at college entrance predicted initial differences in White empathy, guilt, and fear in addition to their change trajectories throughout the college experience. For instance, students with higher racial color-blindness at entrance reported lower White empathy and higher White guilt and fear at college entrance, and they showed a downward trend in White empathy during the first year, an upward trend during the second and third years, and a downward trend during

the last year. Finally, the authors tested whether engagement in diversity activities and cross-racial friendships prospectively predicted different patterns of change in levels of psychosocial costs across college. Results indicated that participation in diversity activities and cross-racial friendships predicted the change trajectories of White empathy, fear, and guilt. For instance, students who had more cross-racial friendships across college had higher levels of White empathy and lower levels of White fear.

Todd et al.'s (2011) results demonstrated that gender, color-blind racial attitudes, engagement in diversity activities, and cross-racial friendships predicted changes in psychosocial costs over time. The proposed study will further research in this area by examining whether the quality of individuals' previous interracial relationships, another factor related to individuals' diversity experiences, predicts psychosocial costs Additionally, this study will examine how these variables differ according to gender by conducting a multi-group comparison of the path model (as previously discussed in Chapter 1) across gender, since Todd et al. demonstrated that psychological costs differ across gender. Finally, Todd et al.'s results suggest that levels of psychosocial costs are not static and can be amenable to change. If psychosocial costs are indeed related to negative mental health outcomes, then interventions (e.g., increased participation in diversity activities) may help increase or decrease these costs.

Intergroup Anxiety

Stephan and Stephan (1985) first proposed the construct intergroup anxiety, defined as anxiety that occurs when people anticipate negative consequences following interactions with outgroup members. Plant and Devine (2003) similarly defined intergroup anxiety as "feelings of tension and distress that result when interacting with a

person from a different social group" (p. 1). Combining Stephan and Stephan's work on intergroup anxiety with social anxiety literature, Plant and Devine proposed a model explaining intergroup anxiety. They posited that the quality of previous interactions with outgroup members negatively influences the amount of anxiety experienced during interactions with outgroup members; that is, more positive previous experiences with outgroup members are associated with lower levels of anxiety during interactions with outgroup members. The authors also argued that the quality of previous experiences with outgroup members would predict individuals' expectations regarding interactions with outgroup members, which would, in turn, predict levels of anxiety. For instance, expecting that an interaction with outgroup members will end positively is likely to produce low levels of anxiety. Plant and Devine specifically tested a model explaining the intergroup anxiety experienced by White individuals when interacting with Black individuals. Consistent with their predictions, results indicated that White individuals' lack of positive experiences with Black individuals predicted negative expectations about their future interactions with Black individuals, which, in turn, predicted higher levels of intergroup anxiety. Furthermore, outcome expectancies significantly mediated the relationship between quality of previous interracial interactions and intergroup anxiety.

It is plausible and consistent with Plant and Devine's (2003) theory explaining intergroup anxiety that higher levels of psychosocial costs could be related to prolonged state anxiety; they demonstrated that constructs similar to behavioral and cognitive psychosocial costs (e.g., quality of previous interracial interactions and outcome expectancies regarding future interracial interactions) predicted interracial anxiety.

Similarly, it is plausible that the empirically-derived affective psychosocial costs might predict a different type of anxiety, that is, state anxiety.

Plant (2004) expanded on Plant and Devine's (2003) cross-sectional model of intergroup anxiety by testing the model longitudinally, which allowed for the clarification of the direction of the relationships outlined in the model. Plant also sought to explore how levels of internal and external motivation to respond without prejudice would affect White individuals' experience of intergroup anxiety during interracial interactions. Internal motivation is the desire to respond without prejudice during interracial interactions because doing so is a part of one's self-concept, whereas external motivation is the desire to respond without prejudice during interracial interactions to avoid punishment or disapproval from others (Plant & Devine, 1998). Plant and Devine (1998) developed the Internal Motivation Scale (IMS) and the External Motivation Scale (EMS) to measure non-Black individuals' levels of internal and external motivation to respond without prejudice toward Black individuals. High EMS persons were more likely to respond with prejudice toward Black persons than low EMS persons despite their motivation to appear unbiased; furthermore, they experienced increased levels of anxiety when they anticipated responding with prejudice during interactions with Black persons (Plant & Devine, 1998). In contrast, Plant and Devine (1998) found that high EMS persons experienced guilt and self-criticism, as opposed to anxiety, when they failed to meet their self-imposed non-prejudiced standards during interracial interactions. Thus, the authors posited that high levels of external motivation might predict negative outcome expectancies about future interracial interactions (i.e., high EMS persons may anticipate prejudice to occur during interracial interactions) and, subsequently, increased intergroup

anxiety during interracial interactions. It was also posited that high levels of internal motivation might predict positive outcome expectancies about future interracial interactions, and, subsequently, low levels of intergroup anxiety during interracial interactions. As such, external and internal motivation were added as additional predictors to Plant and Devine's (2003) original model of intergroup anxiety.

Results indicated that IMS levels, and not EMS levels, predicted outcome expectancies such that persons with high levels of internal motivation reported more positive outcome expectancies regarding future interracial interactions. Additionally, more positive previous contact with Black individuals was associated with more positive outcome expectancies. It was also found that IMS levels and outcome expectancies both predicted intergroup anxiety. Specifically, higher IMS levels and more positive outcome expectancies predicted less intergroup anxiety. Results also indicated that Time 1 outcome expectancies predicted intergroup anxiety at Time 2 above and beyond Time 1 intergroup anxiety and that the reverse was not true; that is, Time 1 intergroup anxiety did not predict Time 2 outcome expectancies. This result clarified the direction of the relationships in the model (i.e., anxiety does not influence one's outcome expectancies) and also demonstrated the independent relationship between Time 1 factors and Time 2 responses.

This study replicates Plant and Devine's (2003) findings that quality of previous interracial interactions and outcome expectancies are related to intergroup anxiety. Additionally, Plant's (2004) longitudinal analysis provided stronger evidence for the direction of the relationships in the model of intergroup anxiety, on which the present model is theoretically based. Thus, this provides additional support for the predicted

direction of the relationships in the current model. That is, quality of previous interracial relationships and psychosocial costs are more likely to predict a negative emotional state, such as state anxiety, and not the other way around. Furthermore, this study suggests that White empathy levels may be inversely related to state anxiety, as higher levels of IMS were associated with lower levels of intergroup anxiety. Because internal motivation is the desire to respond without prejudice due to personal egalitarian values, high IMS persons would seem more likely to experience White empathic reactions toward racism.

Voci and Hewstone (2003) also examined the relationship between quality of previous contact with outgroup members and intergroup anxiety, and results were consistent with the aforementioned studies. Unlike Plant and colleagues (e.g., Plant, 2004; Plant & Devine, 2003), Voci and Hewstone examined intergroup anxiety as a mediating variable, as they were interested in determining how contact effectively reduces prejudice. Combining the literature demonstrating that contact reduces intergroup anxiety (Islam & Hewstone, 1993) and that intergroup anxiety is associated with biased or negative judgments about outgroups (Stephan & Stephan, 2000), Voci and Hewstone posited that intergroup anxiety might mediate the relationship between contact and prejudice among Italian college students and emigrants to Italy from Africa. Between the years of 1985 and 2000, the foreign population in Italy tripled to 1.5 million, resulting in the public's concern about the possible increase in crime and threat to citizens' safety (Sniderman, Peri, de Figueiredo, & Piazza, 2000). Thus, Voci and Hewstone argued that the situation in Italy was appropriate for a study on contact, intergroup anxiety, and prejudicial attitudes. After testing a path model with quality of previous contact as a predictor, intergroup anxiety as a mediator, and attitudes toward

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outgroups and subtle prejudice as criterion variables, the authors found that intergroup anxiety mediated the relationship between quality of previous interracial contact and both attitudes toward outgroups and subtle prejudice. Specifically, more positive quality of previous contact predicted lower levels of intergroup anxiety, and lower levels of intergroup anxiety predicted more positive attitudes toward outgroup members and lower levels of subtle prejudice.

Although a majority of studies examining intergroup anxiety have focused on the interactions between Black and White individuals, there are also studies indicating that intergroup anxiety occurs between White individuals and other types of racial minorities. Littleford, Wright, and Sayoc-Parial (2005) conducted a study aiming to determine whether White individuals experienced intergroup anxiety during interactions with both Asian and Black individuals, and whether White individuals who did experience intergroup anxiety amplified their behaviors or affect during these interactions. Littleford et al. noted that some authors (e.g., Stephan & Stephan, 1985) had previously theorized that some anxiety during interracial interactions could be beneficial, improving attention and decreasing boredom, but that too much anxiety could result in ineffective communication and exaggerated affect and behaviors. However, no studies had tested this theory during in vivo interactions but had instead instructed participants to respond to hypothetical interactions.

Littleford et al. (2005) tested White participants' interactions with White, Black, and Asian individuals. Following the interactions, participants reported how they felt during the interactions (e.g., friendly, shy, argumentative, self-confident, assertive, distant, sociable) and their level of comfort during the interactions, which was used as an

indicator of intergroup anxiety. Furthermore, observers watched videotaped versions of the interactions and rated their perceptions of the participants on six adjective terms (e.g., disengaged-engaged, unfriendly-friendly, uncomfortable-comfortable, etc.), and a separate team of observers coded participants' talk time, affirmations, nods, and gaze aversions during the interactions. Finally, the authors measured participants' systolic and diastolic blood pressure before and during the interactions.

Results of Littleford et al. (2005) indicated that White participants reported feeling more comfortable during interactions with other White individuals than Black or Asian individuals, and they felt more comfortable with Asian individuals than Black individuals. Additionally, observers reported that White participants increased their friendliness when their comfort levels decreased during interactions with Black individuals, whereas they decreased their friendliness when their comfort levels decreased during interactions with White individuals. During interactions with Asian individuals, observers reported that White individuals did not vary their levels of friendliness as their comfort decreased. These results indicated that White individuals experienced intergroup anxiety with both Black and Asian individuals, and that they amplified their friendliness when experiencing decreased comfort during interactions with Black individuals. This suggests that White individuals may feel that it is socially unacceptable to report negative feelings toward racial minorities when they experience discomfort. Furthermore, the seemingly positive finding that White individuals experiencing intergroup anxiety increased their friendliness with racial minorities may be more problematic than it initially appears. Shelton (2003) found that White individuals who were told to act in unprejudiced ways during interracial interactions experienced

more anxiety and enjoyed the interaction less than participants who were not given this instruction. Masked anxiety and decreased enjoyment during interracial interactions may prevent White individuals from engaging in future interracial interactions.

Littleford et al. (2005) demonstrated that intergroup anxiety occurs during interactions between White individuals and other racial minorities, such as Asian individuals. However, there continues to be a dearth of research examining the intergroup anxiety between White persons and non-Black racial minorities. Indeed, Littleford et al. noted that, prior to their study, there were no studies that had examined the difference in White individuals' interactions with Asian individuals in comparison to other White and Black individuals. Thus, the present study will examine quality of previous interracial interactions and the psychosocial costs of racism to Whites in relation to racial minorities in general, rather than specifically focusing on one racial minority group.

White Racial Attitudes

Helms (1984) first introduced the concept of White racial attitudes to the psychological literature, proposing that White individuals can progress through a five-stage cognitive model in order to develop racial consciousness. In 1990, Helms refined her original 1984 theory of White racial attitudes by emphasizing that attitudes make up the racial parts of one's identity (Leach, Behrens, & LaFleur, 2002). Helms (1995) further refined her original theory by updating the White racial identity stages, currently referred to as statuses. The six statuses include: (a) Contact (characterized by obliviousness and unawareness of racism; (b) Disintegration (characterized by conflicted feelings due to the awareness of the existence of racism and wanting to believe that one is

a nonracist); (c) Reintegration (characterized by a regression back to the most basic beliefs of White superiority and minority inferiority); (d) Pseudoindependence (characterized by an initial attempt to understand racial differences and defining a nonracist White identity); (e) Immersion/emersion (characterized by questioning what it means to be White and coming to a personal understanding of racism); and (f) Autonomy (characterized by an increased awareness of one's own Whiteness and acceptance of one's role in perpetuating racism). According to Helms (1995), the overarching developmental goal for White individuals is to abandon feelings of entitlement and achieve a nonracist identity. Helms's work on White racial identity has stimulated research in a multitude of areas related to the experience of Whiteness (Leach et al.,), including the psychosocial costs of racism to Whites and intergroup anxiety.

One relationship that is well-established in the White racial attitudes literature is the relationship between intergroup contact and prejudice. Pettigrew and Tropp (2006) conducted a meta-analysis of 515 studies and found an inverse relationship between intergroup contact and prejudice; that is, more intergroup contact between multiple races and ethnicities is associated with lower levels of prejudice. Given the well-established relationship between intergroup contact and prejudice, numerous studies have examined potential mediators of this relationship. The three most studied mediators have been knowledge, anxiety, and empathy and perspective-taking (Pettigrew & Tropp, 2008). Knowledge serves as a mediator between intergroup contact and prejudice in that intergroup contact facilitates learning about the outgroup, which, in turn, diminishes prejudice levels; anxiety serves as a mediator in that intergroup contact reduces anxiety during intergroup interactions, which, in turn, reduces prejudice levels; empathy and

perspective-taking serves as a mediator in that intergroup contact enables individuals to take the perspective of and empathize with outgroup members, which, in turn, reduces prejudice levels (Pettigrew & Tropp, 2008). Pettigrew and Tropp (2008) conducted a meta-analysis of 515 intergroup contact studies in order to determine which of the three mediators (knowledge, anxiety, and empathy and perspective-taking) was the most effective in mediating the relationship between intergroup contact and prejudice. Results demonstrated that, compared to knowledge, both anxiety and empathy and perspective-taking were stronger mediators. The meta-analysis also revealed a significant negative correlation between anxiety and empathy. The results provide further evidence for a potential inverse relationship between White empathy and state anxiety. The results are also consistent with Plant and Devine's (2003) model explaining intergroup anxiety. That is, Pettigrew and Tropp's (2008) finding that intergroup contact is inversely related to anxiety parallels Plant and Devine's finding that White individuals' lack of positive experiences with Black individuals is associated with increased intergroup anxiety (via outcome expectancies).

Personally experiencing as well as witnessing others experience discrimination or racism has been found to be associated with negative affect and anxiety. For instance, Brondolo et al. (2008) argued that, based on Gallo and Matthews's (2003) Reserve Capacity Model theory, perceived racism would be related to higher levels of negative affect. The Reserve Capacity Model posits that exposure to chronic psychosocial stressors results in more frequent exposure to harmful events because the higher levels of stress deplete the reserve capacity for coping by requiring greater use of tangible and psychological resources. This then results in higher levels of negative affect among

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individuals experiencing chronic psychosocial stressors. Brondolo et al. argued that perceived racism among racial minorities is a chronic psychosocial stressor that might increase negative affect. Thus, the authors measured African American and Latino participants' levels of perceived racism, trait negative affect, and state negative affect. Results indicated that higher levels of perceived racism were associated with higher levels of trait negative affect among both African American and Latino participants; higher levels of perceived racism were associated with higher levels of state negative affect (specifically, daily anger, daily nervousness, and daily sadness) among African American participants; and higher levels of perceived racism were associated with higher levels of state negative affect (specifically, daily anger and daily nervousness) among Latino participants. Furthermore, the relationship between perceived racism and daily anger remained significant even after controlling for trait negative affect.

Brondolo et al. (2008) demonstrated that perceptions of racism are related to negative affect, a variable closely related to state anxiety. However, this study only examined racial minorities' perceptions of racism. Certainly White Americans perceive racism, even if the racism is not directed at them. For instance, White Americans might witness racism while in the company of persons of color. White Americans' perceptions of racism are likely to affect or be affected by the quality of their previous interracial interactions and psychosocial costs. The current study will build on Brondolo et al.'s study by examining the quality of White persons' previous interracial interactions, psychosocial costs, and state anxiety.

Blodorn and O'Brien (2011) examined the relationships between perceptions of racism in Hurricane Katrina-related events, collective guilt, and negative mental health

outcomes among White survivors of Hurricane Katrina. They found that collective guilt, defined as feelings of group-based guilt that arise from realizing that one's group has unfair advantages over other groups, mediated the relationship between perceptions of racism directed at African Americans during Hurricane Katrina and negative mental health outcomes of White Americans. Specifically, greater perceived racism against African Americans during Hurricane Katrina predicted higher levels of collective guilt, and higher levels of collective guilt predicted an increase in mental health symptoms (operationally defined as the presence of depression, anxiety, and somatization symptoms). The results of Blodorn and O'Brien provide further support for a relationship between the psychosocial costs of racism to Whites and state anxiety, as one of the psychosocial costs is White guilt, which differs from collective guilt in that it measures an individual's guilt regarding his or her own Whiteness. Individual White guilt may result in even greater negative mental health outcomes compared to collective guilt because it implies personal responsibility for the racism targeting non-Whites. The current study differs from Blodorn and O'Brien because it will examine psychosocial costs and negative mental health outcomes (i.e., state anxiety) in the context of quality of previous interracial relationships, as opposed to perceptions of racism against African Americans.

Purpose of the Study

The current literature has demonstrated relationships between constructs related to psychosocial costs and negative psychological outcomes. However, there are no empirical studies that directly test the relationship between White individuals' levels of psychosocial costs and state anxiety. Thus, the first purpose of the present study is to

examine the relationship between the psychosocial costs of racism and state anxiety by testing a structural model based on Plant and Devine's (2003) model of intergroup anxiety.

Empirically linking psychosocial costs to mental health has important implications for psychotherapy as well as diversity and social justice issues. First, previous research has consistently demonstrated that psychosocial costs are associated with negative emotional responses. However, no specific mental health interventions have been developed to address psychosocial costs, perhaps because they have not yet been associated with a specific mental health problem such as anxiety. Demonstrating this association may stimulate more interest in this line of research and the development of mental health interventions targeting psychosocial costs. Second, establishing a relationship between psychosocial costs and anxiety may help to improve the racial climate in the U.S. White individuals may be more likely to become involved in social justice issues related to the minimization or abolishment of societal racism with the knowledge that their mental health suffers as a result of racism. Societal racism may become to be regarded as a problem for White individuals and not just persons of color. Furthermore, becoming involved in social justice issues can increase and improve White persons' interactions with diverse individuals, and, in turn, these diversity experiences can result in positive outcomes for White individuals, such as intellectual and social growth.

In the structural model proposed in the present study, the quality of previous interracial interactions is hypothesized to directly predict each of the psychosocial costs, and each of the psychosocial costs, in turn, are hypothesized to directly predict state

anxiety. Specifically, the quality of previous interracial interactions will inversely predict White fear, positively predict White guilt, and positively predict White empathy. In turn, White fear will positively predict state anxiety; White guilt will positively predict state anxiety; and White empathy will inversely predict state anxiety.

Furthermore, the present study will test a second structural model in order to rule out other plausible structural models. The proposed (i.e., target) model and the second model will be compared to determine which has a better fit with the data. The second model proposes that trait anxiety directly predicts the quality of one's previous interracial relationships, and the quality of one's previous interracial relationships, in turn, directly predicts each of the psychosocial costs. Specifically, trait anxiety will inversely predict the quality of previous interracial interactions. In turn, the quality of previous interracial interactions will inversely predict White fear, positively predict White guilt, and positively predict White empathy.

If results indicate a significant relationship between the psychosocial costs and anxiety, the second purpose of the study will be to determine which of the three psychosocial costs is most strongly related to anxiety. This finding would provide implications for which psychosocial cost might be most important for counseling interventions to target in order to prevent or reduce anxiety. Additionally, multi-group comparisons will be conducted in which each structural model will be compared between men and women in order to rule out gender as a confounding variable.

Finally, post hoc analyses will be conducted to determine the presence of mediation in the models if the preliminary analyses indicate that the models have a good fit with the data. In order for mediation to be present, the models must meet the

following criteria elucidated by Frazier et al. (2004) and Baron and Kenny (1986): (a) there must be a significant relationship between the predictor and the criterion variable; (b) there must be a significant relationship between the predictor and the mediator; (c) there must be a significant relationship between the mediator and the criterion variable; and (d) the strength of the relationship between the predictor and criterion variable must be significantly reduced when the mediator is added to the model. If mediation is present in the target model, each of the psychosocial costs will mediate the relationship between quality of previous interracial interactions and state anxiety. If mediation is present in the second model, the quality of previous interracial interactions will mediate the relationship between trait anxiety and each of the psychosocial costs. The chi-square difference test will also be conducted to serve as an additional assessment of mediation's presence in the two models. A test of the indirect effects of mediation will also be conducted. The strengths of the indirect effects in both the target and second models will be contrasted or compared in order to determine which model is more credible.

Chapter 3: Research Method

This Methods Chapter is divided into four subsections. First, the characteristics of the participants are described. Second, the instruments and their psychometric properties and the data collection is discussed. Finally, this Methods Chapter concludes with a discussion of the structural models and the statistical procedures that were utilized to analyze the data.

Participants

Participants were White individuals 18 years of age and older recruited from graduate and undergraduate courses at a medium-sized Southern university, via e-mail, or from online listservs and social media sites. This study was open to adult participants of all generations in order to increase the generalizability of the results. Based on the medium-sized Southern university's student body, it was expected that 61% would be female. Furthermore, White students made up 52% of the student body. The participant demographic information is described in Chapter 4.

Instruments

Psychosocial Costs Measure. The Psychosocial Costs of Racism to Whites Scale (PCRW; Spanierman & Heppner, 2004) measures the negative effects, or psychosocial costs, of racism that White individuals experience. Spanierman and Heppner originally proposed a tripartite model of the psychosocial costs of racism to Whites. That is, they argued that psychosocial costs can be affective, cognitive, or behavioral. However, after generating 36 preliminary items assessing affective, cognitive, and behavioral psychosocial costs and conducting an exploratory factor analysis, results demonstrated a three-factor PCRW mainly assessing for affective

psychosocial costs. The authors noted that many of the original cognitive and behavioral items (e.g., "I live where other Whites live because of racial segregation in society") were eliminated due to their low factor loadings. They attributed the low factor loadings of these items to the sample's low levels of racial awareness, which may have resulted in the items lacking meaning for respondents and their subsequent inability to answer these questions. Thus, the PCRW is composed of three subscales named after the three-factor solution resulting from the factor analysis: White Empathic Reactions Toward Racism, White Guilt, and White Fear of Others.

The PCRW is a 16-item measure. Items are measured using a Likert-type response format ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The White Empathic Reactions Toward Racism subscale consists of six items and measures individuals' levels of anger and sadness in response to racism. Higher scores indicate higher levels of anger and sadness. The White Guilt subscale consists of five items and measures individuals' experiences of guilt and shame regarding being White. Higher scores indicate higher levels of guilt and shame. The White Fear of Others subscale consists of five items and measures individuals' levels of fear or distrust of people of other races. Higher scores indicate higher levels of fear and distrust. All PCRW subscales must be analyzed separately because the White Fear subscale is negatively correlated with the other two subscales. As mentioned previously, most of the PCRW items capture affectively-based psychosocial costs. However, some PCRW items appear to be measuring cognitive (e.g., "Racism is dehumanizing to people of all race, including Whites") and behavioral (e.g., "I have very few friends of other races") types of psychosocial costs. The PCRW was validated on a sample of White undergraduates from

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a middle-sized Midwestern university. Cronbach's alphas for the PCRW were .78 for the White Empathy subscale, .73 for the White Guilt subscale, and .63 for the White Fear subscale. Test-retest correlations for the PCRW over a period of two weeks were .84 for White Empathy, .69 for White Guilt, and .95 for White Fear.

The PCRW has been found to correlate with instruments measuring constructs similar to psychosocial costs. For instance, in order to provide an estimate of convergent validity, Spanierman and Heppner (2004) examined the relationship between PCRW scores and scores on the Color-Blind Racial Attitudes Scale (CoBRAS), which measures color-blind racial attitudes (e.g., an individual's tendency to deny or minimize the effects of racism) (Neville et al., 2000). Spanierman and Heppner (2004) expected that higher levels of White empathy and White guilt would be associated with lower levels of color-blind racial attitudes, and that higher levels of White fear would be associated with higher levels of color-blind racial attitudes. Results were consistent with the predicted relationships.

State Anxiety Measure. The Beck Anxiety Inventory (BAI; Beck et al., 1988) measures anxiety symptoms that have been experienced over the past week (i.e., prolonged state anxiety) that are indicative of clinical anxiety. Prior to the development of this instrument, several existing anxiety measures had been found to be highly correlated with and indistinguishable from depression (Beck et al.). Thus, the BAI was designed to differentiate anxiety symptoms from depressive symptoms. The BAI consists of 21 items measured using a Likert-type response format ranging from 0 (*Not at all*) to 3 (*Severely—I could barely stand it*). Each item describes a common symptom of anxiety, and respondents are instructed to indicate how much they have been bothered by the

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symptom over the past week. Examples of the items include "Unable to relax," "Heart pounding or racing," and "Scared." Higher scores indicate higher levels of anxiety.

The BAI was validated on three samples of psychiatric outpatients at the Center for Cognitive Therapy in Philadelphia, Pennsylvania. The Cronbach's alpha was .92; the test-retest correlation over a period of one week was .75. Factor analysis indicated that the BAI is composed of two underlying dimensions: somatic symptoms and subjective anxiety/panic symptoms. Beck et al. (1988) tested the discriminant validity of the BAI by comparing participants diagnosed with anxiety disorders, participants diagnosed with depression, and participants in a control group. Results indicated that the mean BAI score was higher among participants diagnosed with anxiety disorders compared to participants diagnosed with depression and control participants. Furthermore, Beck et al. found that the BAI had positive, high correlations with constructs related to anxiety (e.g., Hamilton Anxiety Rating Scale-Revised) and negative, weak correlations with constructs related to depression (e.g., Hamilton Rating Scale for Depression-Revised).

Trait Anxiety Measure. The Beck Anxiety Inventory-Trait (BAIT; Kohn et al., 2008) measures dispositional anxiety, or a tendency to perceive situations as threatening and respond to them anxiously. Like the BAI, the BAIT is considered to be a "pure" measure of anxiety uncontaminated by items measuring depressive content. The BAIT uses the same items as the BAI, but with different instructions. Respondents are instructed to indicate how much they are bothered by the anxiety problems on a day-to-day basis. The 21 items are measured using a Likert-type response format ranging from 0 (*Rarely or never*) to 3 (*Almost always)*.

Kohn et al. (2008) demonstrated the construct, convergent, and discriminant

validity of the BAIT utilizing a sample of college undergraduates. The BAIT was

compared to measures of trait anxiety, state anxiety, and dispositional depressiveness.

The authors aimed to establish that the BAIT was a measure of trait anxiety as opposed to

state anxiety. Second, the authors wanted to demonstrate that the BAIT was less

contaminated with depressive content compared to other measures of trait anxiety.

Results indicated that the Cronbach's alpha of the BAIT was .88. Furthermore, the BAIT

correlated more strongly with a measure of trait anxiety ($r = .66$) than measures of state

anxiety ($r = .46$) and dispositional depressiveness ($r = .50$). The BAIT also correlated

less highly with dispositional depressiveness ($r = .50$) than the second measure of trait

anxiety did ($r = .69$) in this validation study. In a second validation study, the BAIT was

administered on two occasions over a 3-week interval. Results indicated that the

Cronbach's alpha was .87 at Time 1, and the test-retest reliability was .83.

Quality of Previous Interracial Interactions Measure. A questionnaire entitled

the Social Experiences Questionnaire (SEQ; Plant, 2004) was used to measure the quality

of participants' previous interactions with racial minorities. Plant constructed this

questionnaire to measure the positivity of White persons' experiences with Black persons

throughout the course of their lives for her study examining Plant and Devine's (2003)

model of intergroup anxiety longitudinally. The questionnaire consists of eight items

(e.g., "My interactions with Black people over the last couple weeks have been very

pleasant") measured using Likert-type response formats. Higher scores indicate more

positive previous contact with Black persons. Because the Likert-type response formats

differ in range for each item (i.e., some items have response options ranging from 1 to 9,

and others from 1 to 7), the responses are converted to z-scores and the total SEQ score is represented by the average of the z-scores. In Plant's study, the questionnaire was administered to a sample of non-Black introductory psychology undergraduate students, and its Cronbach's alpha was .77. In this study, the questionnaire items were worded for contact with all racial minorities in general. Thus, any wording referring to Black individuals was changed to the following: "racial minorities." There are no estimates of test-retest reliability or validity for this questionnaire.

Social Desirability Measure. The Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960) was used to measure participants' need to respond in a culturally appropriate and acceptable manner. The M-C SDS consists of 33 items measured using a true-false response format, and scores range from 0 to 33. Higher scores indicate greater levels of social desirability. Each item describes a behavior that is "culturally sanctioned and approved" (Crowne & Marlowe, 1960, p. 350) and is, at the same time, relatively unlikely to occur. Examples of the items include "Before voting I thoroughly investigate the qualifications of all candidates" and "I have never been irked when people expressed ideas very different from my own." Respondents are instructed to indicate whether the items are true or false as they relate to them personally. The M-C SDS was validated on a sample of undergraduate college students, and the Kuder-Richardson reliability coefficient was .88. Its one-month test-retest correlation was .89.

Procedures

Data were collected by this author. Participants were recruited to volunteer through graduate and undergraduate courses, via email, and online. Instructors at the medium-sized Southern university were sent e-mails briefly describing the study and

requesting their permission for this author to talk for about 5 minutes in their classes in

order to recruit volunteers for a study about protective factors and well-being. A

paragraph describing the study was also contained in the e-mail to instructors. This

paragraph was shared with students if the instructor chose not to have this author visit his

or her class but instead chose to give his or her students an opportunity to participate in

the study. Instructors who scheduled a class visit by this author allowed the author to

read the standard paragraph about the study, answer any questions, and collect names and

e-mail addresses of volunteers. Participants completed online the PCRW, BAI, BAIT,

SEQ, a brief demographic questionnaire, and an instrument to be used in exploratory

analyses not directly related to this study. These questionnaires were provided to

participants via a web link that was sent to them in an e-mail. For instructors who chose

not to have the author visit their classes but wanted to give their students a chance to

participate in the study, the paragraph describing the study along with the web link was

sent directly to the participant list provided by the instructor. Additionally, the paragraph

describing the study and the web link were sent via e-mail to a random sample of 3000

students at the medium-sized Southern university as well as posted to relevant listservs

and social media sites. Participants were asked to pass the paragraph and web link on to

other friends, family, or acquaintances.

Measures were completed in a single time period. Participants who clicked on the

web link opened a webpage on a secure website. On the first page, they viewed an

informed consent form. They first read this form, and clicked a button at the bottom of

the page acknowledging that they read the informed consent form and agreed to

participate in the study. Clicking the button took them to the demographics form and

questionnaires. After completing all questionnaires, participants were presented with a

debriefing statement explaining the purpose of the study in greater detail than the

informed consent form initially provided. After reading the debriefing statement,

participants had the option of withdrawing their responses from the study if they desired.

Participants who completed all questionnaires and did not withdraw from the study then

had the option of signing up for a raffle with a random chance to win one of five $20

Amazon.com gift cards by providing their email address and first name. Participants were

informed of the odds of winning the raffle, which involved five drawings for the sample

of approximately 200 persons (i.e., five chances out of 200 for winning the raffle).

All instruments were counterbalanced to test for order effects; two different

orders of the instruments were used. Names and e-mail addresses were kept until after

completion of the data collection and distribution of the gift cards, after which all names

and e-mail addresses were deleted from the dataset, thus making the data anonymous.

Statistical Analyses

The author of the present study originally planned to test two separate structural

models using the statistical procedure of latent variable Structural Equation Modeling

(SEM). SEM is a technique that measures models composed of indicators and latent

factors; latent factors are variables that are not directly observable (e.g., psychosocial

costs of racism to Whites), whereas indicators are the observed variables that are used as

the indirect measure of latent factors (e.g., PCRW items used to measure the psychosocial

costs of racism to Whites) (Kline, 2011). SEM involves postulating and testing a

statistical model, based on previous theory, that specifies the hypothesized causal

relationships between variables; it tests the hypothesis that X is the cause of Y (Kline,

2011). It is important to note that SEM cannot confirm causal relationships if a

nonexperimental design is used. Rather, SEM demonstrates that a model is either

consistent (e.g., fits well) or inconsistent (e.g., has poor fit) with the data. Thus, SEM is

considered a disconfirmatory technique that helps to reject false models (Kline, 2011).

Despite plans to utilize SEM, the statistical procedure of path analysis was used

instead, as analyses were conducted separately for men and women due to gender

differences in anxiety levels and racial attitudes found in previous empirical literature, in

addition to gender differences found in the preliminary analyses of data for the present

study. These differences are discussed in detail in Chapter 4. Separate analyses resulted

in relatively small subsample sizes, and because use of SEM generally requires a sample

size of at least 200 (Weston & Gore, 2006), observed or measured variables rather than

latent variables were used in analyses (path analysis involves use of measured rather than

latent variables in testing hypothesized models). Because of the change to conduct

analyses separately for men and women and because the final models for men and

women differed, the originally-planned multi-group comparisons of the models between

men and women were not conducted.

Each of the four path models that was tested (i.e., Model 1 for women, Model 1

for men, Model 2 for women, and Model 2 for men) consisted of five measured variables.

In Model 1, quality of previous interracial interactions was hypothesized to predict each

of the three types of psychosocial costs (i.e., White fear, White guilt, and White

empathy), and each psychosocial cost was hypothesized to predict state anxiety. In

Model 2, trait anxiety was hypothesized to predict quality of previous interracial

interactions, and quality of previous interactions was hypothesized to predict each of the

three psychosocial costs. The path models were tested cross-sectionally. Participants completed instruments assessing the quality of their previous interracial interactions, levels of psychosocial costs, and levels of state and trait anxiety during a single time period.

The author of this study had planned to use Version 8.8 of the computer program LISREL (Linear Structural Relationships) for Microsoft Windows (Joreskog & Sorbom, 2006) to perform SEM. Because of the change in statistical analyses, AMOS (Arbuckle, 2014) software was instead used to examine goodness-of-fit indices to determine if the models were a good fit with the data. The specific goodness-of-fit indices that were examined included: Minimum Fit Function Chi Square, Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Standardized RMR (SRMR). Hu and Bentler (1999) argued that a good-fitting model has a nonsignificant Minimum Fit Function Chi Square, a RMSEA less than or equal to .06, a CFI greater than .95, and a SRMR less than or equal to .08.

If results revealed significant relationships between the psychosocial costs and anxiety, it was decided that the three psychosocial costs would be examined to determine which was most strongly related to anxiety. That is, within the target model, it would be determined which psychosocial cost most strongly predicted state anxiety, and, within the second model, it would be determined which psychosocial cost was most strongly predicted by trait anxiety.

It was decided that post hoc mediational analyses would be conducted if any of the path models provided a good fit with the data. In the original proposal for the study, this author had planned to utilize criteria elucidated by Frazier et al. (2004) and Baron

and Kenny (1986), LISREL's (Joreskog & Sorbom, 2006) test of indirect effects, and a

chi-square difference test, and comparison of the AICs to test for mediation. However,

bias-corrected bootstrapping was instead utilized to test for mediation, as it is considered

best practices. Bootstrapping is a resampling technique that can be used to estimate

standard errors for statistics with normal or nonnormal distributions and calculate their

confidence intervals (Kline, 2011); it is preferred over other tests of mediation because it

is high in power and does not require the assumption of a normal sampling distribution of

the indirect effect (Hayes 2009; MacKinnnon, Lockwood, & Williams, 2004) (the

sampling distribution of indirect effects is usually nonnormal). In addition, it was

intended to utilize the AIC to determine whether Model 1(the target model) or 2 (the

alternative model) best fit the data; that is, to compare models. However, because neither

model was viable due to nonsignificant paths, no explicit comparison of models is

provided. The AIC for each tested model is listed in the Results section, however.

Chapter 4: Results

Descriptive Statistics and Preliminary Analyses

Two hundred and sixty-four participants accessed the questionnaires. Out of these 264 participants, 224 participants completed all of the questionnaires. Thus, 42 participants were removed from the data analysis for failure to complete one or more questionnaires. The percentage of missing values among participants who completed all questionnaires ranged from 0% for 40 variables to 2.2% for item 4 of the Social Experiences Questionnaire (SEQ). Under 1% of data were missing for all but 16 variables. Between 1% and 1.8% of data were missing for seven items on the Beck Anxiety Inventory (BAI), one item on the Beck Anxiety Inventory-Trait (BAIT), five items on the SEQ, one item on the Psychosocial Costs of Racism to Whites scale (PCRW), and age. Little's test indicated that missing instrument data were likely to be missing completely at random, $\chi^2(5105) = 5200.13$, $p = .17$. Therefore, expectancy maximization (EM) was used to replace missing data on all variables in the model for the remaining 224 participants. EM is a type of maximum likelihood (ML) approach that utilizes an iterative procedure with two steps. In the first step, regression methods are used to impute the values of missing data. The next step involves calculation of new values for parameters with the newly imputed data in addition to the original observed data. This process then repeats until the estimation changes very little from one iteration to the next (Schlomer, Bauman, & Card, 2010). EM is a recommended procedure for handling missing data because it results in imputation of unbiased parameters (Schlomer et al.). Although multiple imputation (MI) and full information maximum likelihood (FIML) are considered somewhat more accurate than EM (Schlomer et al.), these

procedures result in datasets that cannot be used across different models or programs. Specifically, MI results in pooled datasets that cannot be used by some procedures even within SPSS and cannot be used by AMOS (Arbuckle, 2014), which was used for path analyses. FIML does not impute data but estimates means, standard deviations, and parameters specific to a particular model. Because estimates are model-specific, use of FIML in AMOS (Arbuckle, 2014) would result in different estimated means and other data for Model 1 than for Model 2, since the two models are not nested and use a different variable. FIML also cannot be used in SPSS, which was used to perform preliminary analyses.

Seven multivariate outliers were detected and removed from the sample; exclusion criteria included participants with standardized residuals three or more standard deviations from the mean, participants with both a Cook's distance and centered leverage value three or more standard deviations from the mean, and cases that were clear outliers on both variables in scatterplots examining Cook's distance by centered leverage values. The final sample size for analyses was 217 White persons (161 women and 55 men) ranging in age from 20 to 72 ($M = 38.74$; $SD = 14.04$). The percentage of racial minorities making up the communities in which participants grew up varied widely. For instance, 22% of the sample indicated that racial minorities made up approximately 0 to 5% of their community, followed by 12% of participants who indicated racial minorities made up approximately 6 to 10% of their community. Six percent of participants indicated that racial minorities made up approximately half of their community (46 to 50%), and 3% of participants indicated that racial minorities made up the majority (96 to 100%) of their community.

Preliminary analyses also included an examination of the three subscales (White Empathy, White Guilt, and White Fear) of the PCRW, as well as the SEQ, BAI, BAIT, and Marlowe-Crowne Social Desirability Scale (M-C SDS) for internal consistency. Cronbach's alphas were considered adequate and ranged from .70 to .87. In addition, all positively skewed endogenous variables (all endogenous variables except White empathy) were normalized using square root transformations, whereas White empathy, which was negatively skewed, was normalized by using a square root transformation of the form Square root (K − X), in which K is a constant from which each score is subtracted so that the smallest score equals 1 (usually equal to the largest score plus 1). For instance, scores on the BAI and BAIT were severely positively skewed, with mean scores of 8.42 ($SD = 6.87$) and 8.44 ($SD = 6.87$) among women and 7.54 ($SD = 7.44$) and 6.31 ($SD = 6.32$) among men. Transformations involve converting original scores using a mathematical operation to new scores that are more normally distributed (Kline, 2011).

In order to examine potential gender differences among key variables, the correlations and means of social desirability, psychosocial costs, quality of previous interracial interactions, and state and trait anxiety were compared between men and women. The correlation coefficients between White guilt and state anxiety and White guilt and trait anxiety were significantly different at the .01 level between men and women. Among men, White guilt and state anxiety were positively correlated ($r = .42$, $p = .006$), whereas there was no significant relationship between these variables for women. In addition, among men, White guilt and trait anxiety were positively correlated ($r = .38$, $p = .002$), whereas there was no significant relationship between these variables for women. The correlation coefficient between White empathy and quality of previous

interracial interactions was significantly different at the .01 level between men and women. White empathy and quality of previous interracial interactions were significantly and positively correlated among women ($r = .28$, $p = .046$), whereas there was no significant relationship between these variables for men.

One-way Analyses of Variance (ANOVAs) was conducted to determine if the means of social desirability, psychosocial costs, quality of previous interracial interactions, and state and trait anxiety differed across gender. There was a significant effect of gender on White empathy, $F(1, 214) = 8.65$, $p = .004$, such that women had higher levels of White empathy than men. Means, standard deviations, and variable intercorrelations are presented in Table 1. Given the previous research demonstrating important gender differences in anxiety and racial attitudes, in addition to the differences in correlations and means across gender among these types of variables in the present study, the proposed models were tested separately among men and women. Testing the models separately resulted in smaller subsample sizes, and path analysis as opposed to SEM was used to test the models.

Correlations also demonstrated that age was not associated with any variable in the models for men, but was weakly associated with social desirability, quality of previous interracial interactions, White empathy, and White guilt for women. In addition, social desirability was associated with state anxiety ($r = -.36$) and trait anxiety ($r = -.30$) among men, and it was associated with state anxiety ($r = -.30$), trait anxiety ($r = -.23$), and White guilt ($r = -.29$) among women. Given their significant correlations with some variables among both men and women, social desirability and age were examined as potential covariates in the models by entry in the first block of hierarchical regressions

for men and women, with state anxiety, trait anxiety, White guilt, White fear, White empathy, and quality of previous interracial interactions as criterion variables.

Among men, social desirability predicted state anxiety ($B = -.11$, $\beta = -.43$, $t = -3.35$, $p = .002$) and trait anxiety ($B = -.085$, $\beta = -.34$, $t = -2.60$, $p = .012$), and age predicted no variables. Among women, social desirability predicted state anxiety ($B = -.07$, $\beta = -.34$, $t = -4.52$, $p < .001$), trait anxiety ($B = -.06$, $\beta = -.27$, $t = -3.46$, $p = .001$), and White guilt ($B = -.04$, $\beta = -.26$, $t = -3.43$, $p = .001$), whereas age predicted White empathy ($B = -.01$, $\beta = -.19$, $t = -2.35$, $p = .02$) and quality of previous interracial interactions ($B = -.007$, $\beta = -.175$, $t = -2.19$, $p = .03$).

Social desirability was therefore entered as a covariate in initial tests of path models for men and women, and age was entered as a covariate in initial tests of path models for women, each with paths to the variables they predicted in multiple regression analyses. Entry of age in the path models for women, however, resulted in worse fitting models. For example, entry of age as a covariate with a path to White empathy among women in Model 2 resulted in an AIC of 57.23, as opposed to an AIC of 40.43 in the model without age. Other fit indices also were somewhat worse. Age was, therefore, not included in path models.

Finally, preliminary analyses also included tests of order effects. In order to examine whether the order in which instruments were administered affected the slope of the regression line, order and order x predictor interactions were entered in two final blocks after all predictors. Neither order nor order x variable interactions were significant in any regression with one exception: The block containing order x variable interactions was significant in prediction of White fear, R^2 change $= .03$, $F(2, 154) =$

Table 1
Means, Standard Deviations, and Intercorrelations Among Variables

	1	2	3	4	5	6	7	*M*	*SD*	Alpha
1. BAI	1	.77**	-.30**	-.004	.12	.04	.02	8.23	6.82	.86
2. BAIT	.81**	1	-.23**	-.07	.13	-.05	.11	8.29	6.74	.87
3. SDS	-.36**	-.30*	1	.06	.03	-.29**	-.13	15.39	5.79	.83
4. SEQ	.21	.21	.03	1	.28**	.17	-.53**	.06	.56	.71
5. White Empathy	.34**	.27*	-.22	.02	1	.36**	-.30**	29.47	4.14	.73
6. White Guilt	.42**	.38**	-.13	.16	.36**	1	-.20**	11.24	5.63	.80
7. White Fear	-.05	-.01	-.10	-.66**	-.01	-.21**	1	13.20	4.56	.70
M	7.92	6.65	13.85	-.05	27.36	9.96	13.16			
SD	7.46	6.31	5.35	.53	5.70	4.96	4.68			
Alpha	.86	.87	.83	.71	.73	.80	.70			

Note. BAI = Beck Anxiety Inventory, BAIT = Beck Anxiety Inventory-Trait, SDS = Marlowe-Crowne Social Desirability Scale, SEQ = Social Experiences Questionnaire. Correlations for men are located below the diagonal, and correlations for women are located above the diagonal.

*Significant at the .05 level.

**Significant at the .01 level.

3.93, $p = .022$. Examination of regression coefficients revealed that order [$B = .50$, $\beta = .40$, $t = 2.14$, $p = .034$], order x social desirability [$B = -.03$, $\beta = -.53$, $t = -1.97$, $p = .051$], and order x quality of previous interracial interactions [$B = .31$, $\beta = .43$, $t = 2.11$, $p = .037$] predicted White fear. Higher order predicted greater White fear; for women who received order 1, social desirability was a stronger predictor of White fear relative to women who received order 2; and for women who received order 2, quality of previous interracial interactions was a stronger predictor of White fear, relative to women who received order 1. In preliminary tests of Model 1 and 2, however, order did not predict White fear or other variables in the model. Therefore, order was not included in tests of Model 1 or Model 2.

Model 1 for Women

The hypothesized model for women, with social desirability added as a covariate and predictor with paths to White guilt and state anxiety, provided a poor fit to the data, χ^2 (6, $n = 161$) $= 38.78$, $p < .001$, CFI $= .755$, RMSEA $= .185$ (90% CI: .13, .24), SRMR $= .09$, AIC $= 68.78$. Covariances were therefore added as suggested by modification indices between error terms for White guilt and White empathy, White fear and White empathy, and White fear and White guilt. Addition of error covariances for the four path models in this study was deemed acceptable if the error terms were added between variables created from the same instrument (Y. Xu, personal communication, November 28, 2015). The resultant model (see Figure 3) resulted in a good fit to the data according to all fit criteria except the upper limit to the 90% CI for RMSEA, χ^2 (3, $n = 161$) $= 2.78$, $p = .43$, CFI $= 1.00$, RMSEA $= .00$ (90% CI: .00, .13), SRMR $= .0252$, AIC $= 38.78$. However, although, as hypothesized, quality of previous racial interactions inversely

predicted White fear and positively predicted White guilt, it inversely rather than

positively predicted White empathy. Furthermore, none of the three psychosocial costs

of racism predicted state anxiety. Model fit indices do not necessarily indicate a valid

model (e.g., if hypothesized paths are nonsignificant) (see Kenny, 2015). Because three

of six hypothesized paths were nonsignificant, and one path was negative rather than

positive, Model 1 does not appear to be viable for women in this sample.

Model 1 for Men

The initial model for men, with social desirability added as a covariate with a path

to state anxiety, provided a poor fit to the data, χ^2 (7, n = 55) = 17.49, p = .014, CFI = .82,

RMSEA = .17 (90% CI: .07, .27), SRMR = .12, AIC = 45.49. Error terms for White guilt

and White empathy were therefore allowed to covary, as suggested by modification

indices. This resulted in a model (see Figure 4) with acceptable fit, given the sample size

(see Weston & Gore, 2006) for all fit indices except RMSEA and its 90% CIs, χ^2 (6, n =

55) = 9.65, p = .14, CFI = .94, RMSEA = .11 (90% CI: .00, .22), SRMR = .08, AIC =

39.65. As noted, however, model fit indices must be accompanied by significant

hypothesized paths in order for a model to be viable, yet most hypothesized paths were

not significant. For example, paths from quality of previous interracial interactions to

White guilt and White empathy, and from White fear and White empathy to state anxiety,

were nonsignificant. Indeed, only hypothesized paths from quality of previous interracial

interactions to White fear (β = -.67, p < .001), and from White guilt to state anxiety (β =

.27, p = .032), were significant. As is clear from these results, there were and could not

have been any significant indirect relationships. Finally, the wide range of the CI for

RMSEA indicates that "the estimated discrepancy value is quite imprecise, thereby

negating any possibility to determine accurately the degree of fit in the population"

(Byrne, 1998, pp. 112-113). Small samples and more complex models (e.g., with many

parameters) result in wide CIs (Byrne, 1998). Overall, these data indicate that Model 1 is

unlikely to be viable for men in this sample.
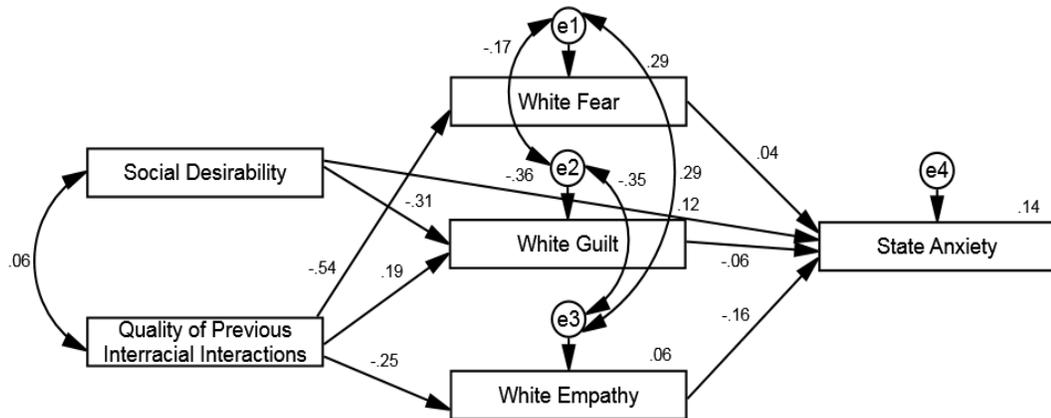
Figure 3. Model 1 for Women
Note. The standardized path coefficients from Social Desirability to White Fear, Quality
of Previous Interracial Interactions to White Fear, and Social Desirability to State
Anxiety are significant at $p < .001$. The standardized path coefficient from Quality of
Previous Interracial Interactions to White Empathy is significant at $p < .01$. The
standardized path coefficient from Quality of Previous Interracial Interactions to White
Guilt is significant at $p = .011$. White Fear $R^2 = .29$, White Guilt $R^2 = .12$, White Empathy
$R^2 = .06$, and State Anxiety $R^2 = .14$.

Model 2 for Women

As in Model 1, social desirability was added as an exogenous predictor due to its

relationships with trait anxiety and psychosocial costs, and it was allowed to covary with

trait anxiety. Because, in preliminary regressions, social desirability predicted only one

psychosocial cost—White guilt—a path was included only from social desirability to this

psychosocial cost. The theorized model provided a poor fit to the data, $\chi^2 (8, n = 161) =$

$45.78, p < .001$, CFI $= .71$, RMSEA $= .17$ (90% CI: .125, .222), SRMR $= .10$, AIC $=$

71.78. Additionally, the proposed path from trait anxiety to quality of previous

interracial interactions was nonsignificant (β = -.04, *p* = .664). Modification indices were

Figure 4. Model 1 for Men
Note. The standardized path coefficient from Quality of Previous Interracial Interactions
to White Fear is significant at *p* < .001. The standardized path coefficient from Social
Desirability to State Anxiety is significant at *p* < .01. The standardized path coefficient
from White Guilt to State Anxiety is significant at *p* = .032. White Fear R^2 = .45, White
Guilt R^2 = .03, White Empathy R^2 = .00, and State Anxiety R^2 = .29.

therefore utilized to improve model fit by adding a path from trait anxiety to White

empathy. Error terms of White guilt and White empathy, White fear and White empathy,

and White fear and White guilt also were allowed to covary. All fit indices except the

high upper 90% CI and the wide range of the CIs for RMSEA indicate that this model

(see Figure 5) provided a good fit to the data, χ^2 (4, *n* = 161) = 3.80, *p* = .434, CFI = 1.00,

RMSEA = .000 (90% CI: .00, .12), SRMR = .04, AIC = 37.80. As noted, however, the

wide range of the CI for RMSEA indicates imprecise discrepancy estimates and highly

questionable generalizability. Furthermore, the primary difference between Model 2 and

Model 1 was the hypothesis that trait anxiety would predict quality of previous interracial

interactions, and this hypothesis was not supported before and after model modifications.

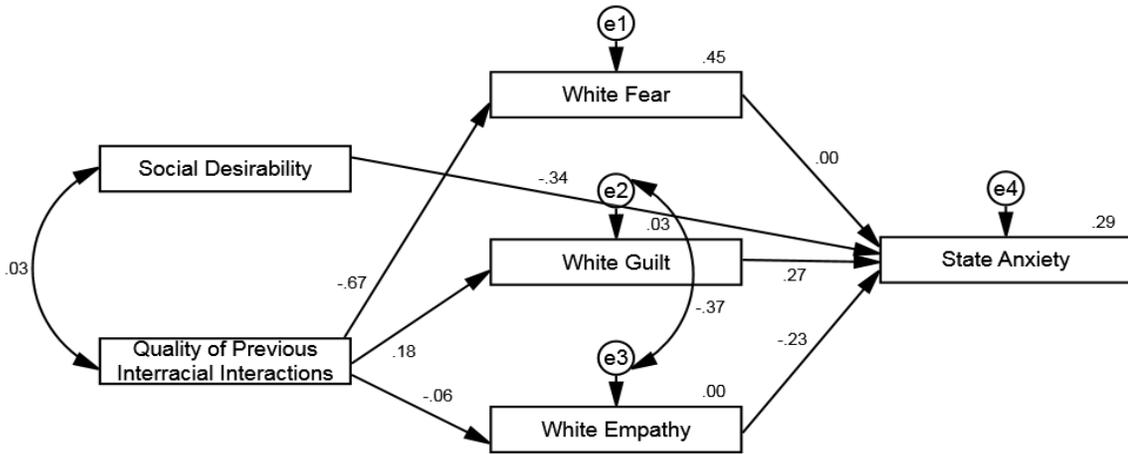Model 2 therefore appears to be nonviable for women in this sample.

Figure 5. Model 2 for Women
Note. The standardized path coefficients from Quality of Previous Interracial Interactions to White Fear, Quality of Previous Interracial Interactions to White Empathy, and Social Desirability to White Guilt are significant at $p < .001$. The standardized path coefficient from Quality of Previous Interracial Interactions to White Guilt is significant at $p = .01$. The standardized path coefficient from Trait Anxiety to White Empathy is significant at $p = .014$. Quality of Previous Interracial Interactions $R^2 = .00$, White Fear $R^2 = .29$, White Guilt $R^2 = .13$, and White Empathy $R^2 = .09$.

Model 2 for Men

In Model 2 for men, social desirability was not included as a covariate, since it did not predict any endogenous variables in preliminary regressions. Like Model 2 for women, the hypothesized model for men provided a poor fit to the data, χ^2 (6, $n = 55$) = 22.52, $p = .001$, CFI = .67, RMSEA = .23 (90% CI: .13, .33), SRMR = .16, AIC = 40.52. Additionally, the path from trait anxiety to quality of previous interracial interactions was nonsignificant despite a small but substantive beta coefficient, ($\beta = .23$, $p = .09$). Modification indices were again utilized to add paths, in this case from trait anxiety to White guilt and White empathy. Error terms for White guilt and White empathy also were allowed to covary. Figure 6 depicts this modified model. All fit indices except

RMSEA, the 90% CI for RMSEA, and the upper range of the CI indicated a good fit to

the data, χ^2 (3) = 5.08, p = .17, CFI = .96, RMSEA = .11 (90% CI: .00, .28), SRMR = .05,

AIC = 29.08. Additionally, bias-corrected bootstrapping indicated that the indirect

relationship of trait anxiety with White fear through quality of previous interracial

e2
.45
White Fear

-.67

e1
.05
Quality of Previous
Interracial Interactions
.10

e3
.14
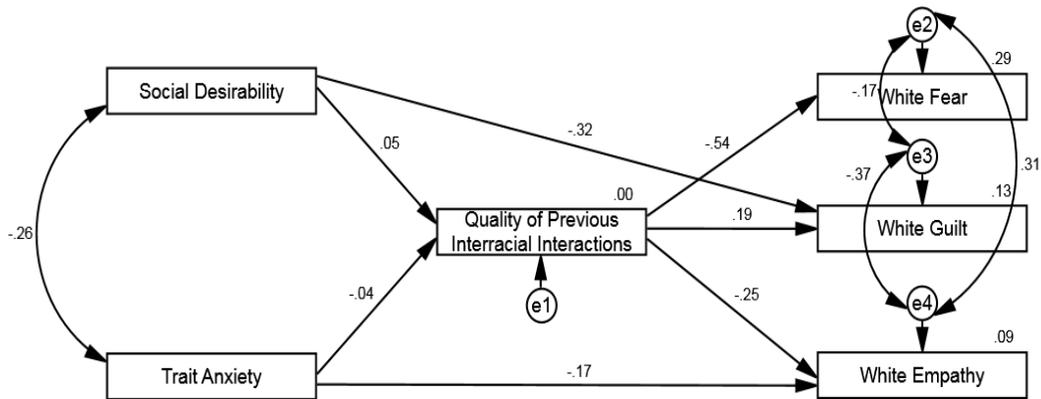White Guilt

.23
.34
.02

-.29

e4
.11

Trait Anxiety
-.34
White Empathy
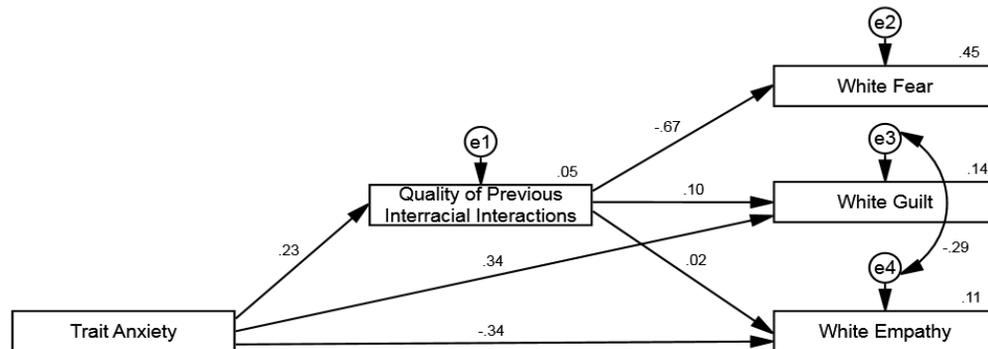
Figure 6. Model 2 for Men
Note. The standardized path coefficient from Quality of Previous Interracial Interactions
to White Fear is significant at $p < .001$. The standardized path coefficient from Trait
Anxiety to White Guilt is significant at $p < .01$. The standardized path coefficient from
Trait Anxiety to White Empathy is significant at $p = .011$. Quality of Previous Interracial
Interactions R^2 = .05, White Fear R^2 = .45, White Guilt R^2 = .14, and White Empathy R^2 =
.11.

interactions was significant, β = -.15, SE = .08, 95% CI: -.32, -.02, p = .022. The path

from trait anxiety to quality of previous interracial interactions remained nonsignificant

after modifications. These data—particularly the failure of trait anxiety to predict quality

of previous interracial interactions, the failure of quality of previous interracial

interactions to predict White guilt or White empathy, the high RMSEA, and both the

wide range and high upper limit of the 90% CI for RMSEA—indicate that this model is

not viable for men. It is also important to note that the cross-sectional design of this

study does not permit strong inference about the direction of relationships, or whether the prediction is bi-directional. Additionally, the very small sample size suggests that caution should be used in interpretation of results and generalizability.

Chapter 5: Discussion

The purpose of the present study was to test the fit of two structural models. The target model examined the relationships between the quality of previous interracial interactions, psychosocial costs of racism to Whites, and the criterion state anxiety, whereas the second model examined the relationships between trait anxiety, the quality of previous interracial interactions, and the criterion psychosocial costs of racism to Whites. However, in light of gender differences in anxiety levels and racial attitudes postulated in theory and found in the empirical literature (e.g., Cundiff & Komarraju; McClean & Anderson, 2009; Wang et al., 2003); mean gender differences in White Empathy in the present study; and differences in the strength of correlations in the present study across gender between White guilt and state anxiety, White guilt and trait anxiety, and White empathy and quality of previous interracial interactions, analyses were conducted separately for men and women. Because of the relatively small subsample sizes in these analyses, and because use of Structural Equation Modeling (SEM) generally requires a sample size of at least 200 (Weston & Gore, 2006), observed variables rather than latent variables were used in analyses. Thus, the statistical procedure of path analysis was used instead of SEM.

Model 1

The target model tested hypotheses based on Plant and Devine's (2003) model of intergroup anxiety, which demonstrated that White persons' lack of positive experiences with Black persons was associated with negative outcome expectations about their future interracial interactions, and that these negative expectations resulted in higher levels of interracial or intergroup anxiety. The target model specifically hypothesized that the

quality of previous interracial interactions would inversely predict White fear, positively predict White guilt, and positively predict White empathy. In turn, White fear and White guilt would positively predict state anxiety, and White empathy would inversely predict state anxiety. This was the first study to examine whether the psychosocial costs of racism predict a major mental health problem, and hence is of potential importance to researchers and clinicians.

After model modifications, Model 1 for women had a good fit to the data according to all fit criteria except the upper limit to the 90% CI for RMSEA. Consistent with hypotheses, quality of previous interracial interactions significantly predicted all three psychosocial costs, two of which were in the anticipated directions (i.e., White fear and White guilt). The quality of previous interracial interactions negatively predicted White empathy, indicating that more positive previous interracial interactions are associated with less anger and sadness about racism. However, none of the psychosocial costs predicted state anxiety. In conjunction, these findings suggest that the quality of previous interracial interactions may in fact predict and shape psychosocial costs, but that psychosocial costs do not predict or shape levels of state anxiety among women. Given that three of six hypothesized paths were nonsignificant, and one path was negative rather than positive, Model 1 was not considered viable for women in this sample.

After model modifications, Model 1 for men had an acceptable fit to the data for all fit indices except RMSEA and its 90% CIs. However, only two out of six of the hypothesized paths were significant, indicating that the model was not viable for men. With regard to significant paths, the quality of previous interracial interactions inversely predicted only one psychosocial cost, White fear. This indicates that positive previous

interracial interactions are associated with lower levels of White fear among men but not with White guilt or White empathy. Second, White guilt positively predicted state anxiety, indicating that higher levels of White guilt are associated with and may result in higher levels of state anxiety among men. However, contrary to hypotheses, neither White fear nor White empathy predicted state anxiety among men.

The aforementioned findings provide limited support for Plant and Devine's (2003) theory of intergroup anxiety, which posited (and which later research substantiated; see Doerr, Plant, Kunstman, & Buck, 2011; Plant, 2004; Plant, Butz, & Tartakovsky, 2008) that the lack of positive experiences with outgroup members predicted negative expectations about future interracial interactions. Negative expectations about future interracial interactions can be considered a type of cognitive psychosocial cost, defined as distortions of the self, others, and reality related to the negative consequences that White people experience as a result of societal racism. The findings of this study demonstrate that the quality of previous interracial relationships predicts other negative responses. For instance, the quality of previous interracial interactions inversely predicted White fear among men and women, and positively predicted White guilt and inversely predicted White empathy among women. These findings suggest that White persons tend to have more fear or distrust toward persons of color if they have had negative experiences with them in the past. In addition, White women tend to feel guiltier about their own Whiteness and less angry and sad regarding the existence of racism if they have had positive experiences with persons of color in the past. The present study's findings regarding White Fear are consistent with results of previous studies examining intergroup contact and White Fear. For instance, Todd et al.

(2011) found that White persons who had more cross-racial friendships across college, which would indicate positive interracial interactions, had lower levels of White fear.

It is also important to note that across both genders, the quality of previous interracial interactions predicted White fear. In addition, the variance accounted for in White fear by the quality of previous interracial interactions in women and men ($R^2 = .29$ and $R^2 = .45$, respectively) is larger than the variance accounted for in White empathy ($R^2 = .06$ and $R^2 = .00$, respectively) and White Guilt ($R^2 = .12$ and $R^2 = .03$, respectively). These results suggest that White fear is the psychosocial cost most strongly affected by the quality of previous interracial interactions, which is seemingly consistent with the literature demonstrating that the quality of previous interracial interactions predicts interracial anxiety (e.g., Plant & Devine, 2003), as White fear is the psychosocial cost most conceptually similar to anxiety. Future research may wish to examine variables that serve as stronger predictors of White empathy and White fear than the quality of previous interracial interactions as measured by the SEQ.

Plant and Devine's (2003) finding that negative responses (e.g., negative outcome expectancies) predicted intergroup anxiety generally did not extend to the target model tested in the current study. It was hypothesized that the psychosocial costs of racism, which all represent the negative affective responses that White people experience as a result of institutional racism, would predict state anxiety. However, no psychosocial costs predicted state anxiety among women; indeed, social desirability was the only significant predictor of state anxiety among women. Similarly, among men, neither White empathy nor White fear predicted state anxiety. However, White guilt predicted

state anxiety among men, such that higher levels of guilt regarding one's own Whiteness predicted higher levels of state anxiety.

Additionally, the control variable social desirability predicted state anxiety. In summary, the target model does not appear viable for men and women, as the quality of previous interracial interactions did not predict all psychosocial costs across gender. Furthermore, only one psychosocial cost predicted state anxiety among men, whereas no psychosocial costs predicted state anxiety among women.

Model 2

The second path model was proposed in order to rule out alternative plausible explanations of the relationships between anxiety, quality of previous interracial interactions, and the psychosocial costs of racism. This model specifically tested the following hypotheses: trait anxiety will inversely predict the quality of previous interracial interactions. In turn, the quality of previous interracial interactions will inversely predict White fear, positively predict White guilt, and positively predict White empathy.

After model modifications, all fit indices except the high upper 90% CI and the wide range of the CIs for RMSEA indicated that Model 2 for women provided a good fit to the data. However, contrary to one core hypothesis of Model 2, trait anxiety did not predict quality of previous interracial interactions, suggesting that White women's levels of dispositional anxiety do not shape or predict the quality of their interactions with persons of color. In addition, the quality of previous interracial interactions predicted all psychosocial costs in the same directions as in Model 1.

After model modifications in Model 2 for men, all fit indices except RMSEA, the 90% CI for RMSEA, and the upper range of the CI indicated that the model exhibited a good fit to the data. Similar to results for women, trait anxiety did not predict the quality of previous interracial interactions among men. Indeed, contrary to hypotheses and to the proposed model, paths added based on modification indices demonstrated that trait anxiety directly predicted the criterion variables White guilt and White empathy. Additionally, trait anxiety indirectly predicted White fear among men through its relationship with quality of previous interracial interactions. That is, quality of previous interracial interactions mediated the relationship between trait anxiety and White fear. These findings indicate that higher trait anxiety directly predicts and may lead to higher White guilt and lower White empathy, and also indirectly predicts lower White fear through a positive but nonsignificant relationship with quality of previous interracial interactions. Although the conditions for mediation that were once argued to be essential (see Baron & Kenny, 1986; Frazier et al., 2004) were not fully met, Zhao, Lynch, and Chen (2010) and other authors have argued that mediation can occur even without a significant direct relationship between a predictor and criterion. In addition, the quality of previous interracial interactions only predicted one psychosocial cost; as in model 1 for men, the quality of previous interracial interactions negatively predicted White fear, indicating that poorer quality of previous interracial interactions is associated with and may lead to higher levels of White fear.

Implications

This study failed to demonstrate links between most psychosocial costs of racism among Whites and mental health outcomes. Within Model 1, psychosocial costs of

racism do not appear to be significant factors in prediction of anxiety. No psychosocial costs predicted state anxiety among women, and neither White empathy nor White fear predicted state anxiety among men. Only White Guilt predicted higher levels of prolonged state anxiety among men. Indeed, only social desirability predicted anxiety among women (inversely), and both social desirability and White guilt predicted anxiety among men, with social desirability appearing to be the stronger predictor. Within Model 2, trait anxiety did not predict the quality of previous interracial interactions among men or women. Overall, results suggest that neither Model 1 nor 2 are applicable to White individuals.

Although previous studies have found that the quality of previous interracial interactions, negative outcome expectancies, and psychosocial costs are related to situation-specific negative emotional responses (e.g., interracial anxiety), there appears to be limited evidence that these types of behavioral, cognitive, or affective psychosocial costs are related to broader or clinical mental health outcomes (e.g., prolonged state anxiety). Indeed, only one study by Todd et al. (2010) found that psychosocial costs were related to negative affect, defined as a general negative mood state that includes aspects of both depression and anxiety (Watson et al., 1998). Furthermore, the relationships between the psychosocial costs of racism and negative affect were examined as participants engaged in specific diversity activities. The significant relationships between psychosocial costs and negative emotional responses may not generalize to broad, ambiguous contexts, such as the context of the present study. In addition, psychosocial costs may have no true effect on clinical mental health outcomes,

despite the extant evidence indicating that they have an effect on negative, non-clinical mood states.

The possibility that psychosocial cost items lacked meaning to participants may have also been one factor that contributed to the null relationships between psychosocial costs of racism and anxiety demonstrated within the present study. Dottolo and Stewart (2013) suggested that psychosocial costs can be induced within persons. For instance, White Americans often feel guilty when the topic of slavery is broached. Because the present study measured psychosocial costs within a general context with no induction of White guilt, fear, or empathy, it is possible that some PCRW items were not salient enough for participants, resulting in deflated, inaccurate levels of psychosocial costs. Minimal identification with psychosocial costs could result in a weaker relationship between costs and outcome variables, such as anxiety levels. However, this argument would likely only apply to White fear (as opposed to White empathy and guilt) within this study, as the means for this subscale among both men and women were lower than the means for this subscale in previous studies (e.g., Poteat & Spanierman, 2008; Spanierman & Heppner, 2004; Todd et al., 2010).

Another potential source of White persons' minimal identification with PCRW items is a tendency among Whites to minimize racial differences due to discomfort regarding racial issues or topics (Dottolo & Stewart, 2013). This tendency to underestimate racial differences could potentially deflate levels of psychosocial costs. The minimization of racial differences characterizes the construct of color-blind racial attitudes, which has frequently been measured in studies examining psychosocial costs (e.g., Soble, Spanierman, & Liao, 2011; Spanierman & Heppner, 2004; Todd et al, 2010).

It is unknown if participants' levels of racial awareness affected their responses to PCRW items, as this study did not include a measure of color-blind racial attitudes. This is one clear limitation of the present study.

Although the models were not supported and the psychosocial costs did not predict anxiety (with the exception that White guilt weakly but significantly predicted state anxiety among men), the mental health outcome examined in this study, there was strong indication that the quality of previous interracial interactions directly predicts and may influence psychosocial costs, particularly among women. For instance, in models 1 and 2, the quality of previous interracial interactions predicted all three psychosocial costs among women but only White fear among men. In addition, the directions of the relationships between the quality of previous interracial interactions and psychosocial costs were consistent with previous studies demonstrating that positive interracial interactions are associated with generally positive outcomes that are conceptually similar to the psychosocial costs of racism to Whites. For instance, in this study, more positive previous interracial interactions were associated with less White fear. Aspects of positive interracial interactions can include both frequency of contact with persons of other races (e.g., Pettigrew & Tropp, 2006) and level of intimacy with persons of other races (e.g., Spanierman, Neville, Liao, Hammer, & Wang, 2008). For instance, Spanierman and Heppner (2004) found that lower levels of White fear were associated with higher levels of exposure to persons of color and higher percentages of friendships with persons of color. In addition, Spanierman et al. (2008) found that both White students' participation in formal college campus diversity experiences and establishment of close interracial relationships during college were associated with higher levels of openness to diversity.

One potential explanation for the finding that the quality of previous interracial interactions did not predict White empathy and guilt among men is that these costs tend to stronger, more salient, or more meaningful among women and hence more likely to be influenced by various factors such as previous interracial interactions. For instance, Spanierman and Heppner (2004) found that women had significantly higher levels of White guilt and White empathy than men. Another study (Spanierman, Poteat, Wang, & Oh, 2008) found that women had significantly higher levels of White empathy than men; there were no other gender differences among the remaining psychosocial costs. Additionally, Poteat and Spanierman (2008) compared responses to the PCRW among the original college sample (i.e., Spanierman & Heppner, 2004) to responses to the PCRW among a new sample of employed White adults. Results indicated a significant interaction effect such that, among the original sample, female college students reported higher levels of White empathy and guilt than male college students, and, among the employed White adult sample, there was no significant difference in reported White empathy and guilt levels between females and males. It may also be relevant that, in general, women report stronger levels of emotions than men and are more sensitive to and affected by others' emotions (Brizendine, 2006).

It is also possible that the quality of previous interracial interactions did not predict White empathy and guilt among men because these psychosocial costs, compared to White fear, are in fact less influenced by previous interracial interactions. For example, Poteat and Spanierman (2008) found that White individuals with higher percentages of White friends had higher levels of White fear ($r = .31$), White individuals with lower percentages of racial minority friends had higher levels of White fear ($r = -$

.29), and White individuals with less frequent contact with people of other races had higher levels of White fear ($r = -.26$). The authors did not report significant relationships between variables assessing interracial interactions and White empathy and guilt, indicating that the quality of previous interracial interactions may be a stronger predictor of White fear than White empathy and guilt. Reasons for the ability of quality of previous interracial interactions to predict other psychosocial costs among women in the present study are not readily apparent.

It will be important for future research to test for gender differences and consider implications for the theory or treatment of psychosocial costs separately among men and women, given the gender differences found in the present study in addition to gender differences found in the literature regarding anxiety and racial attitudes. The present study specifically found that the means of White empathy significantly differed across gender, such that women had higher levels of White empathy than men. Furthermore, the strength of the correlation coefficient between White empathy and quality of previous interracial interactions was significantly different between men and women, such that White empathy and quality of previous interracial interactions were significantly and positively correlated among women but had no relationship among men. Finally, the quality of previous interracial interactions was found to predict White empathy levels among women, but not men, in Model 1. These findings suggest that women have higher levels of White empathy than men, and that White empathy is more strongly associated with quality of previous interracial interactions among women than men. These findings are consistent with the literature indicating that women tend to have more ethnocultural empathy compared to men.

Regarding gender differences in anxiety, the present study found that the strength of the correlation coefficients between White guilt and state and trait anxiety were significantly different between men and women. Among men, White guilt was positively correlated with both state and trait anxiety. There were no significant relationships between these variables for women. Additionally, White guilt positively predicted state anxiety among men in Model 1, and the indirect relationship between trait anxiety and White fear was mediated by the quality of previous interracial interactions among men in Model 2. These findings, along with the much larger path coefficients for men (between White empathy and White guilt and state anxiety) and the greater proportion of state anxiety accounted for in Model 1, suggest that psychosocial costs may be more relevant to state and trait anxiety among men than women. Past research has consistently found that men tend to be less comfortable with racial diversity issues (e.g., men tend to have lower levels of ethnocultural empathy than women), possibly making them more susceptible to experiencing anxiety related to psychosocial costs or interracial interactions. Closer examination of the relationships among these variables in larger and more representative samples of men appears to be warranted.

Limitations

A major limitation of the present study is its cross-sectional design, which does not allow elimination of alternative causal directions of relationships within Models 1 and 2. For instance, the model modifications in this study (e.g., paths added from trait anxiety to White guilt and from trait anxiety to White empathy) suggest that the relationship between psychosocial costs and anxiety may be bidirectional, or that, rather than psychosocial costs predicting anxiety, anxiety predicts psychosocial costs. Another

limitation is the small sample sizes for the male and female groups in this study, which suggests caution when interpreting the generalizability of results. Furthermore, models could not be directly compared either within or across gender, since the models were nonnested and since the hypothesized models provided a poor fit to the data for women and men. It is important to note, however, that the bias-corrected bootstrapping method for testing indirect effects requires fewer participants than other approaches to testing mediation and has been recommended for tests of mediation with small and medium sample sizes (Shrout & Bolger, 2002). Finally, results demonstrated that the CI for RMSEA in Model 1 for men and for both genders in Model 2 had a wide range, which indicates imprecise estimates and highly questionable generalizability.

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Appendix A

Demographic Form

Age: _____

Gender (circle one): Male   Female

Socioeconomic Status (e.g., lower class, middle class, upper middle class, or upper class):
_____

Marital Status (check one):
___Single
___Married
___Cohabitating with Romantic Partner
___Committed long term relationship (greater than one year) but not living together

Race (check one):
___White
___Black
___Asian-American or Asian
___Hispanic-American or Hispanic
___Native American
___Other

Highest level of education completed (check one):
___Did not graduate from high school or earn GED
___GED
___High school diploma
___Some college
___Associate's Degree
___Bachelor's degree
___Some graduate school
___Master's or doctoral degree
___Other

If currently a student, please indicate year in school (check one):
___High school
___Freshman (undergraduate)
___Sophomore (undergraduate)
___Junior (undergraduate)
___Senior (undergraduate)
___Graduate Student
___Graduated and working in field but also working on an additional degree

What is the approximate percentage of the non-White population making up the community in which you grew up? _____

University, College, or Institution Name
___University of Memphis
___Other (Please specify: _____)

Appendix B

Psychosocial Costs of Racism to Whites Scale (PCRW)

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

_____ 1. When I hear about acts of racial violence, I become angry or depressed.

_____ 2. I feel safe in most neighborhoods, regardless of the racial composition.

_____ 3. I feel helpless about not being able to eliminate racism.

_____ 4. Sometimes I feel guilty about being White.

_____ 5. I have very few friends of other races.

_____ 6. I become sad when I think about racial injustice.

_____ 7. Being White makes me feel personally responsible for racism.

_____ 8. I never feel ashamed about being White.

_____ 9. I am fearful that racial minority populations are rapidly increasing in the U.S., and my group will no longer be the numerical majority.

_____ 10.   I am angry that racism exists.

_____ 11.   I am distrustful of people of other races.

_____ 12.   I feel good about being White.

_____ 13.   I often find myself fearful of people of other races.

_____ 14.   Racism is dehumanizing to people of all races, including Whites.

_____ 15.   I am afraid that I abuse my power and privilege as a White person.

_____ 16.   It disturbs me when people express racist views.

Appendix C

Beck Anxiety Inventory

Please carefully read each item in the list. Indicate how much you have been bothered by that symptom over the past week.

	0 = Not at All	1 = Mildly—It didn't bother me much.	2 = Moderately—It wasn't pleasant but I could stand it.	3 = Severely—I could barely stand it.
Numbness or tingling				
Feeling hot				
Wobbliness in legs				
Unable to relax				
Fear of the worst happening				
Dizzy or lightheaded				
Heart pounding or racing				
Unsteady				
Terrified				
Nervous				
Feelings of choking				
Hands trembling				
Shaky				
Fear of losing control				
Difficulty breathing				
Fear of dying				
Scared				
Indigestion or discomfort in abdomen				
Faint				
Face flushed				
Sweating (not due to heat)				

Appendix D

Beck Anxiety Inventory-Trait

Please carefully read each item in the list. In general, how much are you bothered by each of the following problems on a DAY-TO-DAY basis?

How you generally feel:			
	0 = Rarely or never	1 = Occasionally	2 = Often	3 = Almost always
Numbness or tingling				
Feeling hot				
Wobbliness in legs				
Unable to relax				
Fear of the worst happening				
Dizzy or lightheaded				
Heart pounding or racing				
Unsteady				
Terrified				
Nervous				
Feelings of choking				
Hands trembling				
Shaky				
Fear of losing control				
Difficulty breathing				
Fear of dying				
Scared				
Indigestion or discomfort in abdomen				
Faint				
Face flushed				
Sweating (not due to heat)				

Appendix E

Social Experiences Questionnaire

We are going to ask you about your personal experience with racial minorities. We are not concerned with occasions in which you observed a racial minority without their responding to you (such as in a public place). Rather, we are interested in those occasions in which you exchanged greetings, conversed, conducted business, asked for, gave, received information or services, or in some other way responded to each other. For example, looking at a racial minority in a restaurant is not an interaction unless she or he responds to your look in some way, like making direct eye contact with you. Likewise, if you find yourself being looked at, it is not an interaction unless you respond in some way.

We will ask you four sets of questions about your interactions with racial minorities. We will first ask you some general questions followed by questions about your interactions within intimate-personal settings, social-public settings, and the past couple weeks. We will ask you to think about the degree to which your interactions in the various were *pleasant* or *unpleasant*.

General Information

1. How many friends did you have in elementary school that were considered to be racial minorities? (9 = 9 or more)

   1   2   3   4   5   6   7   8   9

2. How many friends did you have in middle school or junior high school that were considered to be racial minorities? (9 = 9 or more)

   1   2   3   4   5   6   7   8   9

3. How many friends did you have in high school that were considered to be racial minorities? (9 = 9 or more)

   1   2   3   4   5   6   7   8   9

4. Of your nine closest friends, how many are considered to be racial minorities?

   1   2   3   4   5   6   7   8   9

Intimate-Personal Setting:
We would like to know about your experience with racial minorities within an *intimate-personal setting*. This may include interactions with a *close friend, boyfriend, girlfriend, date or relative.*

5. On the average, how *pleasant or unpleasant* were these interactions?

                    1   2   3   4   5   6   7
              Very Unpleasant   Very Pleasant

Social-Public Setting:
We would like to know about your experience with racial minorities within the context of various *social-public settings*. This might include interactions with *neighbors, health professionals, fellow club members, professors, classmates, teammates, or competitors in sports*. It may also include interactions with people at *concerts, churches, stores, restaurants, at parties, or while on vacation.*

6. On the average, how *pleasant or unpleasant* were these interactions?

                    1   2   3   4   5   6   7
              Very Unpleasant   Very Pleasant

7. In the future, how *pleasant or unpleasant* do you expect interactions with racial minorities within a *social-public setting* to be?

                    1   2   3   4   5   6   7
              Very Unpleasant   Very Pleasant

The following questions asks you about your experiences over the last couple weeks:

8. My interactions with racial minorities over the last couple weeks have been very pleasant.

              1   2   3   4   5   6   7   8   9
          Not at All   Very Much So