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The Effect of Stereotype Confirmation Concerns on Fear of Negative Evaluation and Avoidance for Those with Social Anxiety Disorder

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THE EFFECT OF STEREOTYPE CONFIRMATION CONCERNS ON FEAR OF NEGATIVE

EVALUATION AND AVOIDANCE FOR THOSE WITH SOCIAL ANXIETY DISORDER

by

SUZANNE JOHNSON

Under the Direction of Dr. Page Anderson, Ph.D.

ABSTRACT

The purpose of this study is to examine the relationship between stereotype confirmation concerns (SCC) and fear of negative evaluation (FNE). It is hypothesized that SCC will predict FNE, and that this effect will be moderated by race, such that SCC and FNE will be stronger among African Americans than among European Americans. A sample of 53 Caucasians and 41 African Americans were diagnosed with social anxiety. A hierarchical multiple regression was run to predict FNE with SCC, race, and the product of the two. The final model explained 27.9% of the variance in participants' FNE. Race significantly moderated the effects of SCC on FNE; SCC had a stronger effect on FNE for Caucasian ($b = .380$, $p < .01$) than for African Americans ($b = .140$, $p < .05$). This study shows that it may be helpful in treatment of social anxiety to ad-

dress stereotype confirmation concerns and to discuss social situations during which negative stereotypes become salient.

INDEX WORDS: Social Anxiety, Fear of negative evaluation, Race, Stereotypes

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2014

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May, 2014

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1 INTRODUCTION

Stereotype confirmation concerns can be a chronic form of stress and is associated with negative outcomes for non-clinical populations (Contrada, Ashmore, Gary, Coups, Egeth, Sewell, Ewell, Goyal, & Chasse, 2001). There is little research, however, that examines the effects of stereotypes, or worries about confirming them, among those who experience anxiety psychopathology. Specifically, the presence of pervasive negative stereotypes and the concern of confirming stereotypes may exacerbate fear of others' judgments among those with social anxiety disorder. The proposed study will explore the relationships between stereotype confirmation concerns and aspects of social anxiety, such as fear of negative evaluation, fear of social situations, and avoidance of social situations among those diagnosed with social anxiety disorder. I will discuss a prominent model of social anxiety (Rapee and Heimberg1997; Heimberg, Brozovich & Rapee, 2010), review research on the effects of stereotypes and of stereotype threat, and conclude with a description of the proposed influence of stereotype confirmation concerns on social anxiety.

Social Anxiety

Social anxiety disorder (SAD) is one of the most common anxiety disorders, with a lifetime prevalence rate of 12.1% (Kessler, Chin, Demler, Merikangas, &Walters, 2005), and a mean age of onset between 10 to 13 years (Rapee & Spence, 2004). Social anxiety disorder is characterized by fear of others' negative evaluation, distress during social interactions, and avoidance of social situations (DSM-IV, APA, 1994). Those with SAD have pronounced impairment; they are less likely to get married, have fewer years of education, and have lower socioeconomic status (Schneier, Johnson, Hornig, & Liebowitz, 1992). When social fears have been

evaluated in detail, three types of feared situations have consistently been found: fear of performance, fear of social interaction, and fear of observation (Bogels, Alden, Beidel, Clark, Pine, Stein, & Voncken, 2010).

Rapee and Heimberg (1997) developed an influential cognitive-behavioral model of social anxiety that addresses the generation and maintenance of anxiety in social situations. The model begins with the assertion that socially anxious individuals experience fear because they assume others are innately critical and because they believe that the opinions of others are important.

1. Perceived Audience

The first step in Rapee and Heimberg's (1997) original model, as well as in the recently updated version (Heimberg, Brozovich, & Rapee, 2010), is the individual's perception of the audience. The term audience refers to any social situation where observation and judgment are possible. In this context, a person sitting across the subway and an auditorium full of people are both considered a social audience. Features of the audience impact the level of anxiety experienced; for example, more formal situations are associated with greater anxiety (Rapee & Heimberg, 1997).

2. Mental Representation of the Self as Seen by the Audience

Once socially anxious individuals see the audience, they develop an image of how they are seen by others, "seeing oneself as through the eyes of the audience." This image is not how these individuals normally see themselves; it is often negatively distorted. In anticipation of social interactions, people with SAD have more negative self-evaluative thoughts than non-anxious people or those with other anxiety disorders (Stopa & Clark, 1993). Those with SAD are self-critical when they believe they will have to interact socially; they become their own worst judg-

es. For example, prior to a social threat, highly socially anxious individuals recalled fewer positive self-referent words than those with low social anxiety; when there was no threat of social performance, there was no difference between groups (Mansell & Clark, 1999). The belief that socially anxious individuals have of how they are seen is continuously modified as the social situation progresses and is influenced by these self-critical thoughts. The belief is also affected by internal cues of anxiety (*I feel like I'm blushing-- I must look red to them.*) and external cues of audience evaluation, with greater attention paid to negative cues (*An audience member yawned!*). (Roth, Antony, & Swinson, 2001; Sposari & Rapee, 2007)

In their updated model, Heimberg, Brozovich, and Rapee (2010) expand on their conception of "the mental representation of the self as seen by the audience," to include research on the impact of negative imagery for those with social anxiety. Socially anxious people have more frequent mental images than those without social anxiety; such images are more negative, distorted, and from an observer perspective (as opposed to a field perspective) (Hackman, Surawy, & Clark, 1998). Taking the observer perspective may act to increase self-criticism, as though watching a distorted version of oneself on television. In other studies, taking the observer perspective is associated with more negative self-evaluation and thoughts, and also with more physical symptoms of anxiety (Spurr & Stopa, 2003). Thus, images of the self from the observer's point of view have a strong impact on the experience of anxiety among SAD individuals.

Hackman, Clark, and, McManus (2000) have reported that the spontaneously-occurring images experienced by those with SAD are recurrent, with many of the same images replayed during each new stressful social situation. They found that these images were often derived from past events occurring during the time their social anxiety became severe and impairing. Addi-

tionally, they found that negative features of these events were not diminished by subsequent positive social events.

3. Comparison of Image of Self with Expected Standards of the Audience

Those with social anxiety usually believe that others have very high standards for their performance (Alden, Bieling, & Wallace, 1994). They also underestimate their social performance and social skills (Stopa & Clark, 1993). The greater the difference between others' standards and one's perceived skills, the greater the anxiety experienced. As the image of oneself changes with internal and external feedback, so does the estimation of one's failure to meet expectations—and hence anxiety fluctuates during social situations.

4. Estimation of the Likelihood and Consequences of Negative Evaluation

When there is a great difference between one's imagined performance and one's perception of others' standards, critical evaluation from others is expected. People with SAD overestimate the probability that they will be evaluated negatively and that negative social events will occur (Stopa & Clark, 1993). Fear of being judged is a primary component of social anxiety. Socially anxious individuals experience greater fear of negative evaluation and social avoidance than those with other anxiety disorders (Oei, Kenna, & Evans, 1991; Stopa & Clark, 1993).

The fear of others' critical judgments in social situations is a core feature of social anxiety disorder and is motivation for social avoidance. Social interaction anxiety is highly correlated with avoidance of social situations (Heimberg, Horner, Juster, Safren, Brown, Schneier, and Liebowitz, 1999) and high fear of negative evaluation correlates strongly with social anxiety and avoidance (Jones, Briggs, & Smith, 1986). Challenging fears of negative evaluation has long been a target of cognitive behavior therapy for the disorder. Mattick and Peters (1988) found that changes in fear of negative evaluation predicted clinical change in avoidance of social situations;

people with SAD avoided social situations less when they viewed others' judgment as less threatening. Thus, fear of negative evaluation leads to avoidance of social situations.

Rapee and Heimberg's model (1997) gives a detailed account of the experience of socially anxious individuals in social situations. High levels of fear of negative evaluation from others make social situations aversive and are associated with avoidance of social situations. When social situations are encountered, individuals with social anxiety perceive others as critical, hold a negatively distorted view of themselves, believe that their social performance falls short of others' high standards, estimate that negative evaluation from others is likely, and experience somatic, behavioral, and cognitive symptoms of anxiety.

Whereas this model provides an excellent framework from which to approach the experience of social anxiety, it discusses social fears from a purely individualistic perspective. It may be important for the understanding of social anxiety to consider how one's social identity impacts social anxiety. The social context within which individuals see themselves, such as their group identity and social hierarchies, may have a significant impact on their level of social anxiety. Next is a review of how social context is theorized to influence stress and anxiety followed by a selected review of the impact of stereotypes and discrimination. Lastly, the effect of stereotypes on social anxiety will be discussed from the framework of extant models of social anxiety disorder.

Multicultural and Sociocultural Perspectives on Stress and Anxiety

Slavin, Rainer, McCreary, and Gowda (1991) propose that the occurrence of potentially stressful events may be affected by minority status and should be included in models of psychological distress. Specifically, they suggest that chronic racism may impact a minority individual's primary appraisal of events as distressing. Multiple researchers have suggested that minority

members may adapt to frequent experiences of discrimination by developing a hypervigilance for potentially threatening racial interactions, and a concern that the event may be occurring because of their race (Comas-Díaz & Jacobsen, 2001; Okazaki, 2009; Carter, 2007). Hunter and Schmidt (2010) recently developed a sociocultural model of anxiety psychopathology for Black adults. Like Slavin et al. (1991), they consider how an individual's social context influences what she learns to fear and how she interprets her distress. They present a pathoplastic model, which accounts for vulnerability factors that influence the expression of anxiety disorders.

Awareness of racism is one such vulnerability factor. For Blacks with social anxiety, fears related to minority status may include fears of being embarrassed or humiliated because of their racial status. Hunter and Schmidt (2010) propose that intergroup anxiety, anxiety during interactions with individuals of different racial groups, and the expectation that these encounters will go poorly may be important components of social anxiety for Blacks.

Effects of Stereotypes

Stereotypes may also play a role in the experience of anxiety amongst ethnic minority individuals. Stereotypes are generalizations about an individual based on their group membership (Mio, Barker, & Tumambing, 2009). Research on the emotional and cognitive effects of negative stereotypes is greatest in the area of stereotype threat. Stereotype threat was first conceptualized as a reduction in task performance when a stereotype about an individual's social group is made salient (Steele, 1997). Steele (1997) originally argued that stereotype threat could be applied to any individual if the performance context was relevant to a pervasive stereotype about their social group.

Many studies have shown that when negative stereotypes are made salient they impact the performance on intelligence tests for Blacks (Blascovich, Spencer, Quinn, & Steele, 2001;

Steele & Aronson, 1995), as well as the math performance of women (Brown & Josephs, 1999; Schmader, 2002; Spencer, Steele, & Quinn, 1999). Given the wide range of manipulations used to make stereotypes salient, such as presenting television commercials with stereotypical roles or requiring that the individual identify their group membership on a form, these findings provide robust support for the idea that stereotypes influence test performance.

Further research on the stereotype threat has found that there are situational and individual differences that moderate the effects of stereotype threat. Features of the testing situation such as the task difficulty, test diagnosticity, and relevance of the stereotype impact the degree of stereotype threat experienced. Stereotype threat has a stronger impact on performance when test items are difficult (Spencer, Steele, & Quinn, 1999). Steele, Spencer, and Aronson (2002) posit that difficult items produce greater frustration for test takers, which leads to greater concern that they are conforming to the stereotype. In addition, they argue that difficult tests may be more vulnerable to disruptive thoughts than simpler tasks. Test diagnosticity also impacts the severity of stereotype threat: When a negative stereotype concerns a group's ability in a domain that is being tested, simply describing the test as diagnostic of one's ability in that area of study is enough of a manipulation to induce the underperformance consistent with stereotype threat (Martens, Johns, Greenberg, & Schimel, 2006; Steele & Aronson, 1995). The degree of stereotype threat can also be affected by the relevance of the stereotype to performance. When a test is described as demonstrating group differences that give credence to a stereotype, the stereotype is made relevant to test performance. Spencer et al. (1999) found that women's stereotype threat could be reduced by describing a difficult math test as not predictive of gender differences. In such cases there was equal test performance across genders. By contrast, when the same test was

described as producing those gender differences, women performed significantly worse than men.

The experience of stereotype threat is also affected by individual characteristics, such as identification with the testing domain and identification with the stereotyped group (Steele et al., 2002). The effects of stereotype threat on test performance are stronger when the area of study is an important part of an individual's identity - personal investment in the given domain raises the stakes for performance. Aronson and Good (2001) found that only women who highly identified with math underperformed due to stereotype threat. The performance of women without a strong identification with math was not affected by stereotype threat. Identification with the stereotyped group, or awareness of being viewed as belonging to the stereotyped group, is also an individual characteristic that impacts stereotype threat. Those who most strongly identify with a stereotyped group experience stronger stereotype threat. Schmader (2002) found that gender identification moderated the effect of stereotype threat on performance: women who strongly identified as female showed greater underperformance than those women who were less strongly identified as female.

More recently, studies have examined mediators of these effects. How does stereotype threat reduce performance? Given that the experience of stereotype threat depends on various characteristics of both the individual and the situation, there are likely multiple processes by which threat affects performance (Steele et al., 2002). Performance expectation is one potential mediator, as individuals' expectations of how well they will perform are strong predictors for their actual performance (Thompson & Sekaquaptewa, 2002). When a negative stereotype becomes salient, individuals' performance expectancies are lowered and, like a self-fulfilling prophecy, individuals underperform. Results from studies examining performance expectancies

as a mediator of the effects of stereotype threat are mixed. Cadinu, Maass, Frigerio, Impagliazzo, and Latinotti (2003) found that women taking a math test under stereotype threat conditions had lowered expectations of their own performance and that this partially mediated the relationship between stereotype threat and actual performance. However, other studies of the same situation, such as Spencer et al. (1999), have found null results.

      An initial component of stereotype threat theory was the idea that stereotypes increases participants' concerns about conforming to the negative stereotype and doubts about their own performance (Steele, 1997). Research supports that people in stereotype threat conditions report experiencing greater negative thoughts about their performance, and these negative thoughts mediate the relationship between stereotype threat and performance (Cadinu, Maas, Rosabianca, & Kiesner, 2005). Therefore, the increase in negative thoughts is partially responsible for poorer test performance under stereotype threat. These negative thoughts utilize cognitive resources needed for the task at hand. In a similar vein, Croizet, Despres, Gauzins, Huguet, Leyen, and Meot (2009) found that those in a stereotype threat condition experienced a greater mental workload, which also mediated the relationship between stereotype threat and performance. Their reasoning is that intrusive thoughts about confirming the negative stereotype increase mental workload, which uses working memory and attention resources and therefore hampers performance. In other words, resources that are necessary for doing well on a test are spent on worrying about stereotypes. Other studies have presented similar models and argued that participants' performance monitoring, their task-related worries, and their attempts to reduce anxiety all expend working memory resources that are necessary for optimum performance (Beilock, Rydell, & McConnell, 2007; Johns, Inzlicht, & Schmader, 2008).

The initial hypothesis implied in Steele's (1997) view of stereotype threat was that it hampers performance by increasing anxiety and evaluation apprehension. Consistent with this view, Spencer et al. (1999) found that women under stereotype threat experienced greater anxiety than women in the control group. Osborne (2001) directly tested the role of anxiety and found that anxiety partially mediated the relationship between stereotype threat and performance for both Blacks and women. Other studies do not support anxiety as a mediator of the impact of stereotype threat on performance (Leyens, Désert, Croizet, & Darcis, 2000; Stangor, Carr, & Kiang, 1998; Stone, Lynch, Sjomeling, & Darley, 1999). Mixed results may be due to methodological differences in the timing of measurement or to the anxiety measures employed (Marx & Staple, 2006). Studies that have used physiological and indirect markers of anxiety show more consistent results: Those under stereotype threat experience increased blood pressure (Blascovich et al., 2001) and nonverbal anxious behaviors (Marx & Staple, 2006).

Thus, stereotype threat studies provide evidence that group differences in performance may be explained by the impact of racial stereotypes. In a broader sense, research suggests that fears of confirming negative stereotypes affect test performance, perhaps due to anxiety or negative thoughts that use cognitive resources. However, many research questions remain regarding the influence of stereotypes on psychological health. Worries about confirming a negative stereotype may exacerbate anxiety, particularly for those with social anxiety. We next turn to how such fears may impact behavior among those with social anxiety disorder.

Stereotype Confirmation Concerns

In order to expand on stereotype threat research, Contrada, Ashmore, Gary, Coups, Egeth, Sewell, Ewell, Goyal, and Chasse (2001) developed a scale measuring worries about confirming stereotypes. Like stereotype threat, stereotype confirmation concerns are applicable for

all people who belong to a group that is stereotyped--virtually everyone. The actual stereotypes that drive an individual's fear and anxiety vary widely, because for each group there are usually multiple stereotypes that people may view themselves as being at risk of perpetuating. Stereotype threat, the impact of an individual's awareness of his or her group's stereotypes, is an acute effect that is triggered by cues of the situation. By contrast, stereotype confirmation concern (SCC) is considered to be relatively enduring. Contrada et al. (2001) explains that concern about confirming stereotypes is a "chronic experience of uncertainty and apprehension about appearing to confirm as self-characteristic a stereotype about a group to which they belong." In the initial examination of SCC, Blacks reported the highest levels of concern compared to Latinos, Asians, and Whites. Blacks also reported having experienced the greatest amount of discrimination. Contrada et al. (2001) also found that SCC was positively correlated with stress for all racial groups and negatively correlated with self-esteem for all racial groups, except Whites. Finally, for all racial groups, stereotype confirmation concerns predicted negative mood.

How Stereotype Confirmation Concerns may Impact Social Anxiety Disorder

Awareness of stereotypes may impact the experience of social anxiety at various stages in Rapee and Heimberg's (1997) model. The socially anxious individual may perceive the audience as biased, view the audience's perception of them as stereotypical, and estimate that the likelihood of negative evaluation is high based, in part, on negative stereotypes. The features of the audience--their race, gender, and other defining characteristics—may also influence the socially anxious individual's perception that the audience will be critical. For example, research on meta-stereotypes (individuals' perceptions of others' stereotypes about their own social group) finds that Blacks believe Whites endorse negative racial stereotypes about their group and view them as violent, unintelligent, and lazy (Sigelman & Tuch, 1997).

The negative, distorted image of oneself that is characteristic of socially anxious individuals may be impacted by the stereotypes about their group. An individual with social anxiety may believe that the audience endorses negative stereotypes about her group. Therefore, her image of herself as seen by the audience is representative of those stereotypes. She may fear acting in a way that will confirm those negative stereotypes, because it may lead to rejection and also perpetuate negative stereotypes about her social group.

Case studies of social anxiety treatment for Blacks support this assertion. Fink, Turner, & Beidel (1996) describe the treatment of a Black female with social anxiety. She was a physician and experienced great distress in social environments at work. Initial exposures were ineffective until the race of the audience was addressed. Almost all of her colleagues were white men. Once the exposure incorporated the racial composition of her perceived audience and her race-related worries were addressed, treatment for her social anxiety was much more effective. Similarly, Johnson (2006) discussed performance anxiety among Black college students and argued that the expectation of being judged based on negative stereotypes is a prominent fear. The author presents a case study of a female, Black student with social anxiety; racism was treated as a causal factor in her social anxiety. She felt pressure to perform perfectly in order to counter negative stereotypes about the intelligence of her racial group. Through the course of treatment they identified race-related triggers of her social anxiety.

The belief that the audience endorses stereotypes, along with the stereotyped image of themselves as seen by the audience, increases the socially anxious person's estimate of the likelihood of a negative evaluation. Thus, a prominent feature of social anxiety, fear of negative evaluation and its consequences, may be exaggerated by a fear of confirming negative stereotypes.

1.1 Purpose of the Study

Given that stereotype confirmation concerns represent a perception of social evaluation, they may affect the experience of social anxiety. Fears of confirming stereotypes may influence the symptoms of those with social anxiety disorder, whose levels apprehension and distress in social situations are high.

A central component of social anxiety, fear of negative evaluation, may be amplified by a fear of confirming negative stereotypes of one's social group. Given that fear of negative evaluation predicts avoidance of social situations (Mattick & Peters, 1988), it is possible that stereotype confirmation concerns would also lead to greater avoidance by exacerbating fear of negative evaluation among those with social anxiety. An individual with social anxiety may worry that they will not only represent themselves poorly, but also that they will negatively represent their social group, which may lead to greater fear and avoidance.

The purpose of this study is to examine stereotype confirmation concerns among individuals with social anxiety. The relationship between stereotype confirmation concerns and aspects of social anxiety, such as fear of negative evaluation, fear of social situations, and avoidance of social situations will be explored with a series of hierarchical multiple regressions. Expected Results

Hypothesis 1: Stereotype confirmation concerns will predict fear of negative evaluation, and this effect will be moderated by minority status (Figure 1). Because prior literature shows that stereotype confirmation concerns have the strongest negative impact on Blacks (Contrada et al., 2001), it is hypothesized that the relation between stereotype confirmation concerns and fear of negative evaluation will be stronger among Blacks than among Whites.

Hypothesis 2: Stereotype confirmation concerns will be positively associated with social avoidance and this relation will be mediated by participants' fear of negative evaluation (Figure 2). Group differences in stereotype confirmation concerns, in fear of negative evaluation, and in fear and avoidance of social situations between Blacks and Whites will also be examined.

2   EXPERIMENT

2.1   Participants

The sample consists of 94 socially anxious participants who participated in a randomized controlled trial comparing Virtual Reality Exposure Therapy (VRE; Anderson, Zimand, Hodges, & Rothbaum, 2005), Exposure Group Therapy (EGT; Hofmann, 2004), and a wait-list control group. Participants were included if they self-identified as "African American" or "Caucasian", were literate in English and had a primary diagnosis of social phobia with a predominant fear of public speaking as determined by the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (SCID-IV; First, Gibbon, Spitzer, & Williams, 2002). The racial groups are limited to African American and Caucasian because there were insufficient numbers of participants to represent other races. Participants were excluded if they had a history of seizure disorder, mania, schizophrenia, or other psychoses, as well as prominent suicidal ideation, or current alcohol or drug abuse or dependence.

The sample had 56 women and 38 men, with a mean age of 38.90 (SD = 11.14; range = 19 - 69). Participants self-identified as either Caucasian (53) or African American (41). This is a highly educated sample: 35.1% completed college, 22.3% have completed some college, 14.9% have completed some graduate school, and 14.9% have completed graduate school.

2.2   Measures

2.2.1   Demographics

Demographic questions (Appendix A) asked participants to provide their gender, age, race, and education.

2.2.2   Stereotype Confirmation Concerns Scale

The SCCS (SCCS; Contrada et al., 2001; Appendix B) is an 11-item measure of participants' fears that they are confirming a stereotype. Respondents rate how frequently over the past 3 months they have been "concerned that by _____ you might appear to be confirming a stereotype." Items are rated on a 7-point Likert type scale of 1 (never) to 7 (always). Total scores range from 11 to 77 and higher scores represent greater concern. The SCCS demonstrates excellent internal consistency, $\alpha = .91$ (Contrada et al., 2001). Similar results were found with this sample, $\alpha = .92$ among African Americans and $\alpha = .91$ among Caucasians.

2.2.3   Fear of Negative Evaluation-Brief Form

The FNE-B (BFNE; Weeks, Heimberg, Fresco, Hart, Turk, & Schneier, 2005; Appendix C) is a 12-item self-report questionnaire that measures the extent to which an individual worries about social judgment. Questions are answered on a 5-point Likert type scale (1 = not at all to 5 = extremely). Sample items are: "I am unconcerned even if I know people are forming an unfavorable impression of me," and "The opinions that important people have of me cause me little concern." The FNE-B has been found to have strong internal consistency, $\alpha = .94$ (Weeks et al., 2005). With this sample, it also has strong internal consistency, $\alpha = .80$ among African Americans and $\alpha = .94$ among Caucasians.

2.2.4 Liebowitz Social Anxiety Scale-SR Avoidance Subscale

The LSAS (LSAS; Liebowitz, 1987; Appendix D) is a 24-item self-report scale that measures a person's fear and avoidance of social situations. Each item describes a social situation and the individual responds how fearful they would be in that situation and to what degree they would avoid the situation on two 4-point Likert type scales (0 = no fear/no avoidance to 3 = severe fear/severe avoidance). Scores for each factor, fear and avoidance, range from 0 to 72. In a normative sample of those with social anxiety, the average fear score was 35.5 (SD = 13.6) and the average avoidance score was 31.6 (SD = 14.5; Heimberg et al., 1999). This measure has strong internal reliability ranging from α = .88 to .95 (Oakman, Amerigen, Mancini, & Favolden, 2003). With this sample, the average fear score was 28.6 (SD= 10.6) and the average avoidance score was 24.45 (SD = 10.14). It also has strong internal consistency within the current sample, α = .93 for the full scale, α = .89 for the fear subscale, α = .86 for the avoidance subscale. For the avoidance subscale that is included in the primary analyses of the current study the avoidance subscale is internally consistent within each racial group, α = .84 among African Americans and α = .89 among Caucasians.

2.2.5 Structured Clinical Interview

The Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (SCID-I; First et al., 2002) is a semi-structured interview for assessing DSM-IV Axis I diagnoses. The SCID has excellent inter-rater reliability when used to assess SAD with an agreement of 92% and a test-retest reliability of .84 (Crippa, De Lima Osorio, Del-Ben, Filho, Freitas, & Loureiro, 2008).

2.3   Procedure

Investigators assessed eligibility with a telephone screen to determine if participants met obvious exclusion criteria. Then, potential participants were invited for an in-person assessment during which a doctoral candidate administered the Structured Clinical Interview for the DSM-IV (SCID) to determine if the individual met criteria for a primary diagnosis of social anxiety and other comorbid disorders. Four doctoral candidates in clinical psychology conducted all assessment procedures. A licensed clinical psychologist supervised student assessors weekly, which included reviewing practice interviews and calculating inter-rater reliability, which was 100%. Data from the present study used only data from the baseline assessment.

3   RESULTS

3.1   Descriptives and Assumptions

Correlations are presented in Table 1, along with the means and standard deviations of each variable. All of the variables were positively correlated with one another but low enough to suggest that they are all separate constructs. The normality of the variables was also examined; all of the variables were normally distributed, with low skew and kurtosis. In order to examine the assumptions of multiple regression (i.e., specification error, heteroskedasticity, normality of residuals, multicollinearity, and nonindependence of residuals) histograms plotting zpredicted by zresidual, p-p plots, and regression plots of fear of negative evaluation by each predictor were examined, none of which indicated violations of these assumptions.

3.2   Moderation

It was hypothesized that race would moderate the relationship between stereotype confirmation concerns and fear of negative evaluation. Stereotype confirmation concerns was cen-

tered and a product term was created by multiplying the centered stereotype confirmation con-

cerns composite variable with race (i.e., dichotomous variable of Black or White). A hierar-

chical multiple regression was run to predict participants' fear of negative evaluation. The cen-

tered stereotype confirmation concerns was entered as the first step, race was entered as the se-

cond step, and the product of the two was entered in the third step. The Durbin-Watson test was

run to check for serial dependency between residuals and indicates that serial dependency is low,

Durbin-Watson = 1.979. Tolerance values were well above .10, ranging from .436-1.00 and VIF

values were well below 10, ranging from 1.00-2.267. Therefore, multicollinearity does not ap-

pear to be an issue.

Table 2 provides the R^2 for each step of the regression, along with B and t values for each

predictor. The final model explained 27.9% of the variance in participants' fear of negative

evaluation, $R^2 = .279$, $F(3, 92) = 12.841$, $p < .01$. Race significantly moderated the effects of ste-

reotype confirmation concerns on fear of negative evaluation; the interaction term was a signifi-

cant predictor of fear of negative evaluation, $B = -.240$, $t = -2.674$, $p < .01$, and its addition in step

three led to a significant increase in the model's predictive power, R^2 change = .056, $F(1.98) =$

7.153, $p < .01$. In order to probe the interaction, minority status was reverse coded and the re-

gression was rerun. Figure 3 shows the interaction between stereotype confirmation concerns

and minority status as they predict fear of negative evaluation. As can be seen by the steeper

slope of Whites ($b = .380$, $p < .01$), stereotype confirmation concerns have a stronger effect on

fear of negative evaluations for Whites than for Blacks ($b = .140$, $p < .05$).

Given that the relationship between stereotype confirmation concerns and fear of nega-

tive evaluation is stronger among Whites, a t-test was run to measure the difference in degree of

stereotype confirmation concerns between Whites and Blacks. Findings indicate that Blacks (*M*

= 33.81, *SD* = 16.89) experience greater stereotype confirmation concerns than Whites (*M* = 27.255, *SD* = 14.00), *t* = 2.05, *p* < .05. Therefore, although Blacks experience greater levels of stereotype confirmation concerns, the significantly stronger slope for Whites shows that the effect of stereotype confirmation concerns on fear of negative evaluation is stronger among majority group members.

3.3   Mediation

It was hypothesized that participants' fear of negative evaluation would mediate the relationship between stereotype confirmation concerns and social avoidance. In order to test this hypothesis a series of regression were run. The Durbin-Watson test was run to check for serial dependency between residuals and indicates that serial dependency is low, Durbin-Watson = 1.800. The tolerance value was well above .10, at .774 and the VIF value was well below 10, at 1.291. Therefore, multicollinearity does not appear to be an issue. The primary predictor, stereotype confirmation concerns, was a significant predictor of the criterion of interest, social avoidance, *B* = .153, *t* = 2.102, *p*< .05, and explained 3.6% of the variance in social avoidance, R^2 = .036, *F* (1,91) = 4.418, *p*< .05. Stereotype confirmation concerns was also a significant predictor of the proposed mediator, fear of negative evaluation, *B* = .234, *t* = 5.147, *p*< .01, and explained 21.7% of the variance in fear of negative evaluation, R^2 = .217, *F* (1, 91) = 26.496, *p*< .01. The proposed mediator, fear of negative evaluation was a significant predictor of social avoidance, *B* = .510, *t* = 3.604, *p*< .01, and explained 11.5% of the variance in social avoidance, R^2 = .115, *F* (1, 91) = 12.991, *p*< .01. Finally, a hierarchical regression was run with stereotype confirmation concerns in step one and fear of negative evaluation added in step two. The results of the hierarchical regression are presented in Table 3. The final model explains 10.8% of the variance in social avoidance, R^2 = .108, *F* (1, 90) = 6.595, *p*< .01. The effect of fear of negative evaluation on so-

cial avoidance was significant, $B = .468$, $t = 2.900$, $p < .01$. When fear of negative evaluation was added in step two, stereotype confirmation concerns became non-significant, $B = .044$, $t = .546$, $p = .586$. Therefore, fear of negative evaluation fully mediated the effect of stereotype confirmation concerns on social avoidance.

4   CONCLUSIONS

One finding from the present study is that stereotype confirmation concerns are associated with greater fears of negative evaluation for both Blacks and Whites (both slopes were significant and positive). Consistent with the original conceptualization of stereotype confirmation concerns as applicable across racial groups, stereotypes have a significant impact on fear of negative evaluation among both Blacks and Whites (Contrada et al., 2001). This finding is can be interpreted within Rapee and Heimberg's (1997) model of social anxiety. For example, people with social anxiety who also have high stereotype confirmation concerns may view the audience's perception of them as stereotypical. Therefore, their mental images of themselves as seen by the audience may include stereotypical characteristics. They may expect that their performance would have to be of the highest quality to contradict those stereotypes. They may also fear acting in a way that will confirm those negative stereotypes because it may lead to their rejection and also perpetuate negative stereotypes about their social group, which increases their estimate of the likelihood of a negative evaluation.

The influence of stereotype confirmation concerns on fear of negative evaluation is also consistent with Hunter and Schmidt's (2010) proposal that awareness of racism (or negative judgment based on social group membership) influences the expression of anxiety disorders. Hunter & Schmidt, however, argued that intergroup anxiety would affect the presentation of anx-

iety for Blacks. Our findings suggest that the expectation of judgment based on one's social group influences a fundamental component of social anxiety for *both* Blacks and Whites. Although, consistent with Contrada et al. (2001), socially anxious Blacks did report higher levels of stereotype confirmation concerns than Whites with social anxiety. So then why is the influence of stereotype confirmation concerns on fear of negative evaluation stronger for Whites?

One possible explanation is the potential protective effect of racial socialization for Blacks. Racial socialization refers to the transmission of race-related messages from parents or members of the community. Previous research has found that certain racial socialization messages are protective against the negative impact of discrimination (Neblett, White, Ford, Philip, Nguyen, & Sellers, 2008). For example, parental messages of cultural pride reduced the impact of racism on psychological distress of Black college students (Bynum, Burton, & Best, 2007). Blacks also may cope with race-related stress better than Whites. Plummer and Slane (1996) found that in racially stressful situations African, Americans used a greater number of coping strategies than Whites. Thus, Blacks with social anxiety may have experienced protective racial socialization and may have developed better coping strategies for a specific type of evaluative concern - fears of confirming negative stereotypes. For example, a Black woman who learned about common racial stereotypes and ways of coping with them from her mother may develop a sense of group coherence against racism that protects her from internalizing negative stereotypes.

Racial identity may also be protective against the negative effects of SCC. The multidimensional model of racial identity defines racial identity as the significance and qualitative meaning that individuals attribute to their membership within their racial group (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). Theorists suggest that racial identity helps Blacks cope with the stress of discrimination (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002). Alt-

hough some studies suggest that stronger racial identity is associated with more reports of racial discrimination (Burrow & Ong, 2010; Sellers & Shelton, 2006), others find that when discrimination does occur, strong racial identity is protective against the negative effects (Neblett, Shelton, & Sellers, 2004). Racial identity may act as a buffer, reducing the power of stereotype confirmation concerns on fear of negative evaluation. For example, racial pride and strong group membership may lessen the impact of negative stereotypes because positive aspects of the group are central to one's identity. However, the impact of racial identity is far from simple. Future research should examine whether racial identity or racial socialization attenuate the relation between stereotype confirmation concerns and fear of negative evaluation. Future studies should also explore whether the degree of past discrimination experienced impacts the effects of these variables.

Fear of negative evaluation also mediated the relation between stereotype confirmation concerns and social avoidance. This finding suggests that stereotype confirmation concerns indirectly result in greater avoidance. The significant relation between fear of negative evaluation and social avoidance is consistent with Mattick & Peters (1988), who found that changes in fear of negative evaluation are predictive of changes in social avoidance. Further, the significant mediation adds quantitative evidence to the qualitative studies of Fink et al. (1996) and Johnson (2006), who described the effects of cultural and racial variables on social anxiety symptoms.

Future studies should consider this significant meditation within the context of the significant moderation and test whether this mediation functions differently among Whites, for whom the relationship between SCC and FNE is stronger. A stronger relationship between SCC and FNE-B among Whites may affect their avoidance of social situations that evoke these stereotypes. This study provides the framework for examining these relations using comparative mod-

eling to test whether the mediation of SCC and avoidance by FNE functions differently for different social groups.

Regardless of group differences, this study shows that it may be effective for the treatment of social anxiety to address stereotype confirmation concerns as one possible source of fear of negative evaluation. When devising exposure exercises for those with social anxiety it may be effective to include situations that are likely to induce stereotype confirmation concerns. Clinicians should consider the nature of the stereotypes and what situations or people tend to evoke stereotype confirmation concerns. Exposures could include interactions with people from other social groups (of a different race, gender, socioeconomic status, or sexuality). For example, a White, homosexual, male client experiences high stereotype confirmation concerns and anxiety, particularly when among heterosexual men at the gym. When constructing his fear hierarchy these situations are described as the most anxiety provoking. The client endorses worrying about confirming negative stereotypes of gay men and that his heterosexual male friends will alienate him. Exposures may include situations where he interacts with heterosexual men and perhaps incorporate behaviors that he believes would be judged as stereotypical of gay men. Regular exposure to situations that induce stereotype confirmation concerns may reduce the strength of their influence on fear of negative evaluation.

People identify with multiple social groups and their social identities may be more or less salient depending on the situation. For example, a White woman's gender identity may be salient when interacting with a group of White men, whereas her racial identity may be prominent when interacting with Black women. Given the intersectionality of social identities, her fear of confirming a particular stereotype may be stronger when in a situation that highlights her group identity. One's social context impacts which social identities, and therefore which stereotypes,

are triggered. The power of stereotypes on social anxiety may vary depending on the social context. Thus, exposures that trigger fears of confirming relevant stereotypes of various social identities of the client, across multiple social situations may be most effective.

Further, incorporating different social contexts into exposures may enhance inhibitory learning in exposure therapy for anxiety. Exposure therapy involves not only fear reduction during exposure to a conditioned stimulus but also inhibitory learning. Inhibitory learning refers to forming another association with the conditioned stimulus that is not excitatory. Inhibitory learning is enhanced by conducting exposure therapy in multiple contexts (Craske, Kircanski, Zelikowsky, Mystkowski, Chowdhury, & Baker, 2008). Doing so develops more retrieval cues that are associated with the newly learned response (Rodriguez, Craske, Mineka, & Hladek, 1999). Therefore, exposure sessions that vary by context allow for greater generalizability to real-life situations. Given these findings on the optimum administration of exposure, it may be useful to construct exposures across various social situations during which different social identities and their stereotypes become salient.

There are several limitations of this study that should be noted. The racial groups in this study are limited to Blacks and Whites. Future studies should examine these relationships with greater representation of racial groups. The generalizability of our findings may be limited because the participants have low comorbidity and they are relatively highly educated. Given that our measure of stereotype confirmation concerns allows the respondents to answer regarding any stereotype of a group with which they self-identify, we cannot make assertions about the nature of the stereotypes about which participants were thinking when answering the self-report measure. For example, some participants may have been thinking about stereotypes about race, gender, religion, and/or others. Future research on stereotype confirmation concerns and social pho-

bia would benefit from gathering qualitative information on the specific stereotypes that participants fear they will reinforce and which social identities become salient when completing the SCCS. Future research should also directly evaluate whether explicitly targeting stereotype confirmation concerns, during exposure or other aspects of therapy, is effective within treatment for social anxiety.

This study is one of few to directly examine the impact of social identities on the experience of social anxiety. It provides quantitative evidence that the social context within which socially anxious individuals view themselves impacts their fear of negative evaluation. Stereotype confirmation concerns predicted fear of negative evaluation for both Black and Whites—a construct that captures one aspect of social interaction in a socially heterogeneous world. It may be helpful to consider the impact of stereotypes and other aspects of social group experience when treating patients with social anxiety.

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APPENDICES

Appendix A

Demographic Information

Gender:

O   Male   O   Female

Age: _____   Date of Birth: _____

Racial/Ethnic Origin:

O   African American

O   Caucasian

O   Hispanic

O   Asian American

O   Pacific Islander

O   American Indian

O   Other   _____

Highest level of Education Completed:

O   Some high school

O   Completed high school

O   Some college (1-2 years)

O   Some college (3+ years)

O   Completed college degree

O   Some graduate school

O   Completed graduate degree

Current Marital Status:

O   Single

O   Married

O   Separated

O   Divorced

O   Living with someone

O   Widowed

Current Total Annual Household Income:

O   Less than $ 5,000

O $ 5,000 - $ 10,000

O $ 10,000 - $ 20,000

O $ 20,000 - $ 30,000

O $ 30,000 - $ 50,000

O   More than $ 50,000

Appendix B

Stereotype Confirmation Concern Scale

Please indicate how often over the past 3 months you have been concerned that by

_____ you might appear to be confirming a stereotype.

1	2	3	4	5	6	7

Never   Always

1. Owning certain things

2. Attending or participating in certain social activities

3. The way you look (your physical performance)

4. Shopping in certain stores or eating in at certain restaurants

5. Eating certain foods

6. Doing certain households tasks

7. Dressing a certain way

8. Playing certain sports

9. Taking your studies too seriously

10. Talking in a certain way

11. Revealing your socioeconomic status

Appendix C

Fear of Negative Evaluation – Brief Form

Read each of the following statements and then use the scale below to indicate the degree to which each statement applies to you, use the blank to enter the number that corresponds to your answer for each question.

1	2	3	4	5
Not at All	Slightly	Moderately	Very	Extremely

1. I worry about what other people will think of me even when I know that it doesn't make any difference. _____

2. I am unconcerned even if I know people are forming an unfavorable opinion of me. _____

3. I am frequently afraid of other people noticing my short comings. _____

4. I rarely worry about what kind of impression I am making on someone. _____

5. I am afraid that others will not approve of me. _____

6. I am afraid that people will find fault in me. _____

7. Other people's opinions of me do not bother me. _____

8. When I am talking to someone, I worry about what they may be thinking about me. _____

9. I am usually worried about what kind of impression I make. _____

10. If I know someone is judging me, it has little effect on me. _____

11. Sometime I think I am too concerned with what other people think of me. _____

12. I often worry that I will say or do wrong things. _____

Appendix D

Liebowitz Social Anxiety Scale (LSAS-SR) Avoidance Subscale

Fill out the following questionnaire with the most suitable answer listed. Base your answers on your experience in the past week, and if you have completed the scale previously, be as consistent as possible in your perception of the situations described. Be sure to answer all items.

0 = Never (0%)

1 = Occasionally (1% - 33% of the time)

2 = Often (33% - 67% of the time)

3 = Usually (67% - 100% of the time)

Understanding the situations:

1. Telephoning in public--speaking on the telephone in a public place

2. Participating in small group--having a discussion with a few others

3. Eating in public places--do you tremble or feel awkward handling food

4. Drinking with others in public places--refers to any beverage including alcohol

5. Talking to people of authority--for example, a boss or a teacher

6. Acting, performing, or giving a talk in front of an audience--refers to a large audience

7. Going to a party—an average party to which you may be invited; assume you know some but not all people at the party

8. Working while being observed—any type of work you might do including school work or housework

9. Writing while being observed—for example, signing a check in a bank

10. Calling someone you don't know very well

11. Talking with people you don't know very well

12. Meeting strangers—assume others are of average importance to you

13. Urinating in a public bathroom—assume that others are sometimes present, as might normally be expected

14. Entering a room when others are already seated—refers to a small group, and nobody has to move seats for you

15. Being the center of attention—telling a story to a group of people

16. Speaking up at a meeting—speaking from your seat in a small meeting or standing up in place in a large meeting

17. Taking a written test

18. Expressing appropriate disagreement or disapproval to people you don't know very well

19. Looking at people you don't know very well in the eyes—refers to appropriate eye contact

20. Giving a report to a group—refers to an oral report to a small group

21. Trying to pick up someone—refers to a single person attempting to initiate a relationship with a stranger

22. Returning goods to a store where returns are normally accepted

23. Giving an average party

24. Resisting a high pressure sales person—avoidance refers to listening to the salesperson for too long

Table 1.1 Correlations, Means, and Standard Deviations
Correlations between Fear of Negative Evaluation, Stereotype Confirmation Concerns, and Social Avoidance along with their Means and Standard Deviations.

	FNE	SCCS	LSAS	*M*	*SD*
Fear of Negative Evaluation (FNE)	1	.475**	.353*	31.72	7.72
Stereotype Confirmation Concerns (SCCS)		1	.215*	30.21	15.63
Social Avoidance (LSAS avoidance subscale)			1	24.80	11.13

Note.*p < .05, **p < .01.

Table 2.1 Hierarchical Regression: Moderation
Hierarchical Regression: Minority Status as a Moderator of Stereotype Confirmation Concerns Predicting Fear of Negative Evaluation.

	B	SE	t	Model R^2
Step 1				.217**
Stereotype Confirmation Concerns	.234	.046	5.147**	
Step 2				.229**
Stereotype Confirmation Concerns	.250	.046	5.401**	
Race	-2.259	1.444	-1.564	
Step 3				.279**
Stereotype Confirmation Concerns	.380	.066	5.742**	
Minority Status	-2.127	1.398	-1.521	
SCCS X Race	-.240	.090	-2.674**	

Note. $*p < .05, **p < .01.$

Table 3.1 Hierarchical Regression: Mediation
Hierarchical Regression: Fear of Negative Evaluation as a Mediator of Stereotype Confirmation Concerns Predicting Social Avoidance.

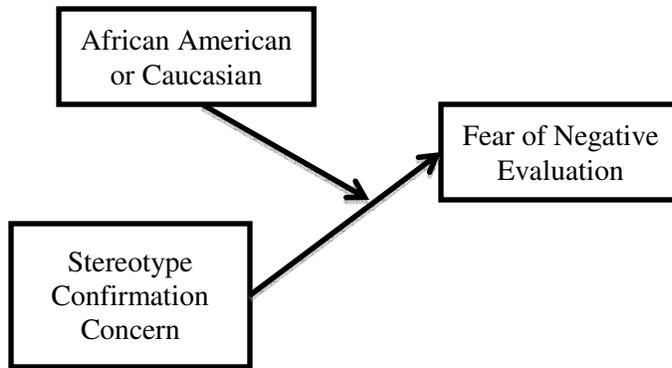|	B	SE	t	Model R^2
Step 1				.036*
Stereotype Confirmation Concerns	.153	.073	2.102*	
Step 2				.108**
Stereotype Confirmation Concerns	.044	.080	.546	
Fear of Negative Evaluation	.468	.161	2.900**	

Note. *$p < .05$, **p $< .01$.

Figure 1.1 The hypothesized moderation.
The influence of stereotype confirmation concerns on
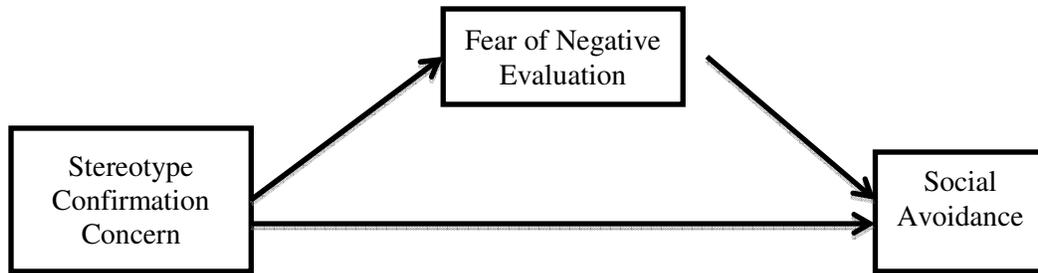fear of negative evaluations is moderated by race.

Figure 2.1 The hypothesized mediation.
Participants' fear of negative evaluation mediates the relationship between stereotype confirmation concerns and social avoidance
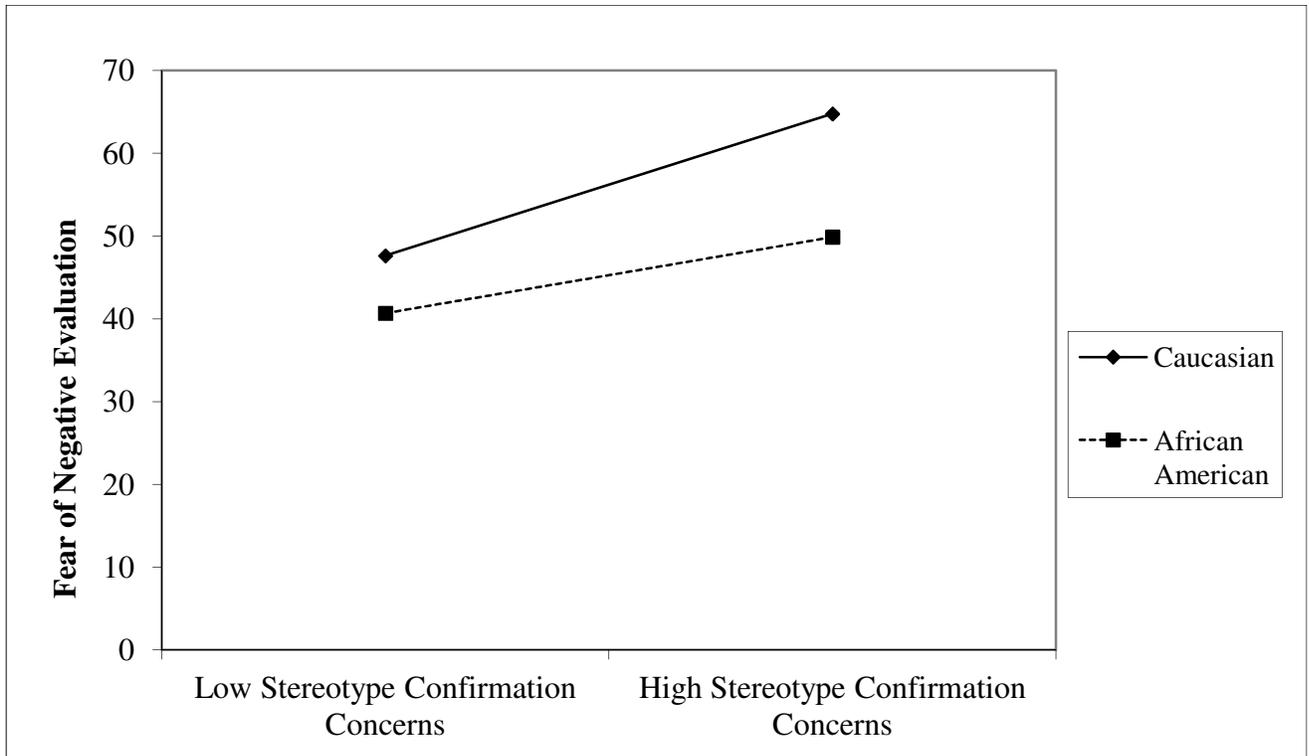
Figure 3.1 The interaction between stereotype confirmation concerns and race.
The effect of stereotype confirmation concerns on fear of negative evaluation moderated by race. The slopes for majority and minority status groups are both significant; however, stereotype confirmation has a stronger effect on fear of negative evaluation for the majority group